

The Board of Economic Inquiry, Punjab.

RURAL SECTION PUBLICATION—26.

(GENERAL EDITOR : J. W. THOMAS, B.Sc., B.Com.)

FARM ACCOUNTS

IN THE

PUNJAB,

1930-1931

**Being the seventh year's accounts of certain farms, with a section on the
COST OF WELL-IRRIGATION IN THE PUNJAB.**

BY

**SARDAR KARTAR SINGH, B.Sc. (AGRI.), N.D.D., L.AG.,
ASSISTANT PROFESSOR OF AGRICULTURE,
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[The Board of Economic Inquiry, Punjab, does not hold itself responsible for
any opinions expressed or conclusions reached by the writer.]

1932.

PREVIOUS PUBLICATIONS IN THIS SERIES.

1. Some Aspects of *Batai* Cultivation in the Lyallpur District of the Punjab, by *H. R. Stewart, I.A.S.*
(Rural Section Publication, No. 12.)
2. Accounts of Different Systems of Farming in the Canal Colonies of the Punjab, by *H. R. Stewart, I.A.S. and S. Kartar Singh, B. Sc. (Agri.)*.
(Rural Section Publication, No. 15.)
3. Farm Accounts in the Punjab, 1926-1927, by *H. R. Stewart, I.A.S. and Ch. Karm Rasul, B. Sc. (Agri.)*.
(Rural Section Publication, No. 19.)
4. Farm Accounts in the Punjab, 1927-1928, by *H. R. Stewart, I.A.S. and S. Kartar Singh, B. Sc. (Agri.)*.
(Rural Section Publication, No. 20.)
- *5. Farm Accounts in the Punjab, 1928-1929, by *H. R. Stewart, I.A.S. and S. Kartar Singh, B. Sc. (Agri.)*.
(Rural Section Publication, No. 21).
- *6. Farm Accounts in the Punjab, 1929-30, by *S. Kartar Singh, B.Sc. (Agri.)*.
(Rural Section Publication, No. 24.)

* Contain a section on "Well-irrigation in the Punjab," also.

A complete list of Board's Publications is given at the end of the Book.

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Intro. and cotton during *kharif* 1930, in tracts where the combined demand for land revenue and water rates exceeded Rs. 8/8/0 for rice and Rs. 7/- for cotton, per acre. Rohtak, Amritsar, Montgomery, Lyallpur and Multan were among the fifteen districts affected by this remission. In the *rabi* dues of 1931, Government again had to grant a remission of five annas in the rupee, of land revenue in general, and three annas in water rates for the wheat crop only.

The income and expenditure per acre for the various holdings are set out in Statement I. to this Introduction ; Statement II. shows the average figures for various districts.

The gross incomes of most of the holdings in 1928-29 were slightly higher than those in 1927-28. A severe dust storm in 1927-28 that swept over a large part of the Province, affected the wheat crop adversely and consequently the gross income. Since 1928-29 the income has been steadily declining. In 1930-31 the average gross income derived from canal-irrigated holdings alone, was reduced by 48·8 per cent. and on well-irrigated holdings by 43·6 per cent. Risalewala Farm in the Lyallpur District is a Government farm managed by the Agricultural Department and farmed on improved lines. It has been giving the highest income in all the five years and as it is about 800 acres in area it unduly inflates the average figures, which, therefore, cannot be taken as representative of the average *zemindar* holding. For this purpose Risalewala has been excluded from the holdings in the Canal Colonies and from the total of canal and well-irrigated farms. The resulting figures show that the gross income has been considerably reduced, whilst the expenditure has been little affected. The net income curve has consequently followed the gross income curve as shown in the graph.

So far the figures showing the actual position of the holding under a variety of conditions of cultivation, have been discussed. In some cases the holding or a part of it was under direct cultivation, and in others it was farmed by a tenant on cash, or kind, rent or on both. In the Canal Colonies, land revenue is generally paid by the tenant in addition to the rent he pays to the landlord, but in older districts the land revenue is paid by the owner. In case of some holdings the members of the cultivators' families were sufficient to carry on the cultivation without employing any labour from outside, whilst in others the cultivators had to engage partners or labourers. In order to compare the expenses and incomes, all the holdings have to be brought under similar conditions. Accordingly Statement III. has been prepared, wherein the rent payable for the rented area and labour have been omitted, and full land revenue has been included. In other words, in this statement it

is presumed that the entire holding belonged to the cultivator and he kept no labour to assist him in his work. The net income in each case, therefore, represents the remuneration for the labour of the cultivator and his family. Statement IV. gives the average remuneration for various districts. Intro.

These adjustments have affected only the expenditure and consequently the net income ; the gross income remains the same. A comparison of the average figures of the two statements, II. and IV., will show that expenditure in the latter has been lowered by about Rs. 3/7/5 as compared with that of the previous years, when Risalewala was excluded, and this resulted in a corresponding rise in the net income. The variations in income, expenditure and profits have been shown in Graph B. facing page 1.

I am indebted to Sardars Arjan Singh and Jaswant Singh for their usual help in working out the mass of data given in this publication, and am also grateful to Mr. M. L. Darling, I.C.S., Commissioner, Rawalpindi Division, for his valuable suggestions to the following effect that :—(a). The land revenue should be given separate from water rates, so that the proportion land revenue bears to gross produce may be worked out ; this has been done in Statement VI., and (b). a summary of income and expenditure for each farm should be given for easy reference ; this has also been done in the statements that follow.

LYALLPUR :
22nd April 1932.)

KARTAR SINGH.

STATEMENT

Showing Income and Expenditure Per Acre for the last 5 Years

Intro.

District.	Holding.†	GROSS INCOME.				
		1926-27	1927-28	1928-29	1929-30	1930-31
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Lyallpur	.. *Risalewala	95 7 10	95 10	4 90 15 10	91 14	4 50 10 11
..	.. Chak 248 R. B.	83 9 10	39 6	4 67 0	4 64 0	9 35 11 11
..	.. Chak 41 J. B.	69 12 11	57 13	5 57 14	4 50 10	8 29 8 11
Sargodha	.. Chak 122 S. B.	..	63 4	2 67 5	8 34 0	9 21 7 1
Montgomery	.. Chak 145/9 L	62 11	0 50 7	7 65 9	7 63 1	8 40 8 6
Amritsar	.. Sheron	..	..	87 0	6 49 10	3 37 3 6
..	.. N. Punuan	..	..	89 8	0 58 13	3 29 8 0
Rohtak	.. Larsauli	..	..	78 6	10 56 9	1 37 15 6
..	.. Bighan	..	..	96 7	8 90 6	2 60 6 2
..	.. Kheora	..	..	83 1	5 67 4	1 42 7 1
Multan	.. Ashaqpur	..	..	36 2	1 21 15	9 21 10 11
..	.. Khubarwal	..	..	32 7	11 37 6	7 29 1 3
Jullundur	.. Sargundi	..	..	92 5	3 78 3	6 54 4 0
..	.. Ramunwal	..	..	75 6	7 49 8	4 37 13 5
..	.. Badala	..	74 0	4 70 6	9 50 6	6 35 0 9
Hoshiarpur	.. Dholanwal	..	67 9	9 60 4	1 72 6	10 46 1 9
Ludhiana	.. Leelan	..	..	39 11	11 31 7	6 20 5 5
..	.. Sidhwan	..	..	..	72 3	9 36 3 9

*As the land is owned by Government, no land revenue has been included in expenditure;

† The parts to which these holdings refer in the publications for the respective years

I.

on Various Holdings in the Province.

Int

EXPENDITURE.					NET INCOME.				
1926-27	1927-28	1928-29	1929-30	1930-31	1926-27	1927-28	1928-29	1929-30	1930-31
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
36 4 11	41 4 5	38 12 1	40 10 9	32 2 0	59 2 11	54 5 11	61 3 9	51 3 7	18 8 11
33 12 8	32 14 11	33 1 10	34 10 9	30 13 3	49 13 2	6 7 5	33 14 6	29 6 0	4 14 8
46 2 8	39 13 10	40 14 5	38 3 9	25 7 2	23 10 3	17 15 7	16 15 11	12 6 11	4 1 9
..	25 4 11	32 2 1	21 8 11	18 0 11	..	37 14 3	35 3 7	12 7 10	3 6 2
24 5 3	26 5 5	22 14 0	31 0 11	31 6 10	38 5 9	24 2 2	42 11 7	32 0 9	0 1 8
..	..	42 15 6	43 1 3	37 2 10	..	..	44 1 0	6 9 0	0 0 8
..	..	27 3 5	33 0 9	31 6 7	..	..	62 4 7	25 12 6	-1 14 7
..	..	77 1 3	73 2 4	42 5 5	..	..	1 5 7	-16 9 3	-4 5 11
..	..	58 8 7	61 10 0	40 8 8	..	..	37 15 1	28 12 2	19 13 6
..	..	51 8 5	53 0 4	37 0 7	..	..	31 9 0	14 3 9	5 6 6
..	..	27 13 8	23 7 11	18 6 4	..	..	8 4 5	-7 8 2	3 4 7
..	..	17 15 7	18 11 4	19 9 1	..	..	14 8 4	18 11 3	9 8 2
..	..	59 1 10	52 12 6	43 10 11	..	..	33 3 5	25 7 0	10 9 1
..	..	58 14 5	58 7 1	46 4 8	..	..	16 8 2	-8 14 9	-8 7 3
..	21 7 6	25 12 1	25 14 6	18 9 6	..	52 8 10	44 10 8	24 8 0	16 7 3
..	37 0 1	44 0 2	44 0 3	37 6 2	..	30 9 8	16 3 11	28 6 7	8 11 7
..	..	21 1 11	25 15 3	19 11 1	..	..	18 10 0	5 8 3	0 10 4
..	..	..	59 11 9	40 0 2	..	..	..	12 8 0	-3 12 5

if this were done the expenditure would be increased and net income decreased by Rs. 7/0/9 are shown on page xiv.

STATEMENT

Showing the Average Income, Expenditure and Profit Per Acre of Holdings

Intro.

Districts.	GROSS INCOME.					
	1926-27	1927-28	1928-29	1929-30	1930-31	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Lyalpur	93 7 7	92 8 9	97 8 8	89 10 5	49 8 5	
Sargodha .. ..	.. ..	63 4 2	67 5 8	34 0 9	21 7 1
Montgomery	62 11 0	50 7 7	65 9 7	63 1 8	40 8 2	
Amritsar .. ..	.. ..	.. ..	87 10 11	53 15 8	32 10 3
Rohtak .. ..	.. ..	.. ..	85 1 11	70 9 0	46 8 4
Multan .. ..	.. ..	.. ..	33 14 2	32 1 3	26 8 4
Jullundur .. ..	.. ..	.. ..	83 15 6	66 5 7	47 7 2
Hoshiarpur .. ..	.. ..	.. ..	60 4 1	72 6 10	46 1 9
Ludhiana .. ..	.. ..	.. ..	39 11 11	39 1 2	24 9 6
<hr/>						
AVERAGE.	Canal Colonies	91 13 1	89 6 6	95 11 11	86 14 6	47 10 0
	Well-irrigated	63 3 1	50 15 5	35 10 4
	Total	91 13 1	89 6 6	87 2 0	77 14 0	45 0 11
	Excluding Risalewala :—					
	(a). Canal Colonies	70 0 7	52 4 6	64 7 1	53 11 4	29 8 1
(b). Total	70 0 7	52 4 6	63 8 1	51 11 1	33 8 4	

II.

in Various Districts in the Province for the last 5 Years.

EXPENDITURE.					NET INCOME.					Intro.
1926-27	1927-28	1928-29	1929-30	1930-31	1926-27	1927-28	1928-29	1929-30	1930-31	
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
36 13 9	40 15 2	38 10 3	40 6 4	31 13 10	56 9 10	51 9 7	58 14 5	49 4 1	17 10 7	
..	25 4 11	32 2 1	21 8 11	18 0 11	..	37 14 3	35 3 7	12 7 10	3 6 2	
24 5 3	26 5 5	22 14 0	31 0 11	31 6 10	38 5 9	24 2 2	42 11 7	32 0 9	9 1 8	
..	..	38 13 3	38 5 4	33 12 1	..	..	48 13 8	15 10 4	1 7 10	
..	..	61 0 7	60 10 6	39 10 0	..	..	24 1 4	9 14 6	6 14 4	
..	..	20 12 1	20 5 10	19 2 7	..	..	12 2 1	11 11 5	7 5 9	
..	..	53 8 11	49 1 5	40 3 2	..	..	30 6 7	17 4 2	7 4 0	
..	..	44 0 2	44 0 3	37 6 2	..	..	16 3 2	28 6 7	8 11 7	
..	..	21 1 11	32 4 1	25 2 4	..	..	18 10 0	6 13 1	0 8 10	
36 2 11	39 11 1	38 0 3	39 7 3	31 0 7	55 10 2	49 11 5	57 11 8	47 7 3	16 9 5	
..	..	37 12 1	38 7 5	31 7 0	..	..	25 7 0	12 8 0	4 3 4	
36 2 11	39 11 1	37 15 2	39 3 3	31 2 0	55 10 2	49 11 5	49 2 10	38 10 9	13 14 11	
35 6 11	30 4 1	32 8 8	31 5 7	24 9 9	34 9 8	22 0 5	31 14 5	22 5 9	4 14 4	
35 6 11	30 4 1	36 7 4	36 7 8	29 1 2	34 9 8	22 0 5	27 0 9	15 4 3	4 7 2	

STATEMENT

Showing Income and Expenditure Per Acre of the Cultivators for the

Intro.

District.	Holding.*	GROSS INCOME.				
		1926-27	1927-28	1928-29	1929-30	1930-31
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Lyallpur	.. Risalewala	.. 95 7 10	95 10	4 99 15 10	91 14	4 50 10 11
..	.. Chak 248 R. B.	.. 83 9 10	39 6	4 67 0	4 64 0	9 35 11 11
..	.. Chak 41 J. B.	.. 69 12 11	57 13	5 57 14	4 50 10	8 29 8 11
Sargodha	.. Chak 122 S. B.	.. ..	63 4	2 67 5	8 34 0	9 21 7 1
Montgomery	.. Chak 145/9 L.	.. 62 11 0	50 7	7 65 9	7 63 1	8 40 8 6
Amritsar	.. Sheron	.. ..	..	87 0	6 19 10	3 37 3 6
..	.. N. Punuan	.. ..	..	89 8	0 58 13	3 29 8 0
Rohtak	.. Larsauli	.. ..	..	78 6 10	56 9	1 37 15 6
..	.. Bighan	.. ..	..	96 7 8	90 6	2 60 6 2
..	.. Kheora	.. ..	..	83 1 5	67 4	1 42 7 1
Multan	.. Ashaapur	.. ..	..	36 2	1 21 15	9 21 10 11
..	.. Khubbarwal	.. ..	..	32 7 11	37 6	7 29 1 3
Jullundur	.. Sargundi	.. ..	..	92 5 3	78 3	6 54 4 0
..	.. Ramunwal	.. ..	..	75 6 7	49 8	4 37 13 5
..	.. Badala	.. ..	74 0	4 70 6	9 50 6	6 35 0 9
Hoshiarpur	.. Dholanwal	.. ..	67 9	9 60 4	1 72 6	10 46 1 9
Ludhiana	.. Leelan	.. ..	..	39 11 11	31 7	6 20 5 5
..	.. Sidhwan	.. ..	..	..	72 3	9 36 3 9

* The parts to which these holdings refer in the publications for the respective years,

III.

last Five Years, if the Whole Land had Belonged to Them.

Intro.

EXPENDITURE.					NET INCOME.					
1926-27	1927-28	1928-29	1929-30	1930-31	1926-27	1927-28	1928-29	1929-30	1930-31	
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
43 5	8 48 5	2 45 12	10 47 11	6 39 2	9 52 2	2 247 5	2 51 3	0 44 2	10 11 8	2
33 12	8 32 14	11 33 1	10 34 10	9 30 13	3 49 13	2 6 7	5 33 14	6 29 6	0 4 14	8
46 2	8 39 13	10 40 14	5 38 3	9 25 7	2 23 10	3 17 15	7 16 15	11 12 6	11 4 1	9
..	25 4	11 32 2	1 21 8	11 18 0	11 ..	37 14	3 35 3	7 12 7	10 3 6	2
24 5	3 26 5	5 22 14	0 31 0	11 31 6	10 38 5	9 24 2	2 42 11	7 32 0	9 9 1	8
..	..	25 10	8 24 10	6 25 7	9 ..	..	61 5	10 24 15	9 11 11	9
..	..	23 11	8 27 15	11 25 2	2 ..	..	65 12	4 30 13	4 4 5	10
..	..	61 6	11 60 2	8 35 7	8 ..	..	16 15	11 - 3 9	7 2 7	10
..	..	56 9	0 53 11	8 33 3	8 ..	..	39 14	6 36 10	6 27 2	6
..	..	47 11	3 47 8	10 32 1	10 ..	..	35 6	2 19 11	3 10 5	3
..	..	21 1	4 18 0	3 11 5	0 ..	..	15 0	9 3 15	0 10 5	11
..	..	17 15	7 18 11	4 17 12	8 ..	..	14 8	4 18 11	3 11 4	7
..	..	48 10	11 43 14	10 36 15	8 ..	..	43 10	4 34 4	8 17 4	4
..	..	49 13	0 52 4	2 44 5	5 ..	..	25 9	7 - 2 11	10 - 6 8	0
..	21 7	6 25 12	1 25 14	6 18 9	6 ..	52 8	10 44 10	8 24 8	0 16 7	3
..	34 1	0 39 12	6 40 15	3 33 7	5 ..	33 8	9 20 7	7 7 31	7 7 12	4
..	..	18 8	8 21 0	11 17 5	4 ..	..	21 3	3 10 6	7 3 0	1
..	..	..	51 13	8 31 8	5 ..	..	..	20 6	1 4 11	4

are shown on page xiv,

STATEMENT

Showing the Average Income and Expenditure Per Acre of the Cultivators

Intro.

	Districts.	GROSS INCOME.				
		1926-27	1927-28	1928-29	1929-30	1930-31
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
	Lyalpur	93 7 7	92 8 9	97 8 8	89 10 5	49 8 5
	Sargodha .. ..	.. ..	63 4 2	67 5 8	34 0 9	21 7 1
	Montgomery	62 11 0	50 7 7	65 9 7	63 1 8	40 8 6
	Amritsar .. ..	.. ..	.. ..	87 10 11	53 15 8	32 10 3
	Rohtak .. ..	.. ..	.. ..	85 1 11	70 9 0	46 8 4
	Multan .. ..	.. ..	.. ..	33 14 2	32 1 3	26 8 4
	Jullundur .. ..	.. ..	.. ..	83 15 6	66 5 7	47 7 2
	Hoshiarpur .. ..	.. ..	.. ..	60 4 1	72 6 10	46 1 9
	Ludhiana .. ..	.. ..	.. ..	39 11 11	39 1 2	24 9 6
	Canal Colonies	91 13 1	89 6 6	95 11 11	86 14 6	47 10 0
	Well-irrigated .. ..	.. ..	.. ..	63 3 1	50 15 5	35 10 4
	<i>Total</i>	91 13 1	89 6 6	87 2 0	77 14 0	45 0 11
AVERAGE.	Excluding Risalewala: -					
	(a). Canal Colonies	70 0 7	52 4 6	64 7 1	53 11 4	29 8 1
	(b). <i>Total</i>	70 0 7	52 4 6	63 8 1	51 11 1	33 8 4

IV.

of Various Districts, if the Whole Land had Belonged to Them.

Intro.

EXPENDITURE.					NET INCOME.				
1926-27	1927-28	1928-29	1929-30	1930-31	1926-27	1927-28	1928-29	1929-30	1930-31
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
40 11 11	45 13 0	43 10 5	45 3 10	37 9 6	52 11 8	46 11 9	53 14 3	44 6 7	11 14 11
..	25 4 11	32 2 1	21 8 11	18 0 11	..	37 14 3	35 3 7	12 7 10	3 6 2
24 5 3	26 5 5	22 14 0	31 0 11	31 6 10	38 5 9	24 2 2	42 11 7	32 0 9	9 1 8
..	..	23 5 6	26 3 8	24 11 1	..	..	64 5 5	27 12 0	7 15 2
..	..	54 1 11	52 8 9	33 6 11	..	..	31 0 0	18 0 3	13 1 5
..	..	19 2 8	18 7 6	15 8 10	..	..	14 11 6	13 9 9	10 15 6
..	..	45 3 6	42 8 1	35 10 5	..	..	38 12 0	23 13 6	11 12 9
..	..	39 12 6	40 15 3	33 7 5	..	..	20 7 7	31 7 7	12 10 4
..	..	18 8 8	26 12 10	21 2 4	..	..	21 3 3	12 4 4	3 7 2
39 13 9	44 2 4	42 11 9	43 15 4	36 4 5	51 15 4	45 4 2	53 0 2	42 15 2	11 5 7
..	..	31 1 1	32 7 11	26 7 7	..	..	32 2 0	18 7 6	9 2 9
39 13 9	44 2 4	39 10 4	41 1 3	34 2 9	51 15 4	45 4 2	47 7 8	36 12 9	10 14 2
30 0 1	28 2 2	30 11 9	29 8 4	23 15 9	40 0 6	24 2 4	33 11 4	24 3 0	5 8 4
30 0 1	28 2 2	30 15 9	31 10 8	25 9 9	40 0 6	24 2 4	32 8 4	20 1 3	7 14 7

STATEMENT V.

Showing Gross Income, Expenditure and Net Income of Canal-Irrigated Holdings in 1930-31.

Intro.

District.	Farm.	Area held.	Area cropped.	Intensity of cropping.	TOTAL.			PER ACRE.		
					Gross income.	Expenditure.	Net income.	Gross income.	Expenditure.	Net income.
		A. K. M.	A. K. M.	Per cent.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Lyalpur ..	Chak 248 R.B. (Part VIII).	27 2 10	29 2 11	107.3	976 4 2	841 15 7	134 4 7	35 11 11	30 13 3	4 14 8
" ..	Chak 41 J. B. (Part IX).	27 6 8	22 6 4	81.9	821 11 0	707 7 3	114 3 9	29 8 11	25 7 2	4 1 9
" ..	Risalewala .. (Part X).	802 5 0	838 4 1	104.5	40,680 9 10	25,783 2 8	14,897 7 2	50 10 11	32 2 0	18 8 11
Montgomery	Chak 145/9 L. (Part XI)	25 0 0	30 3 16	121.9	1,013 3 11	785 10 4	227 9 7	40 8 6	31 6 10	9 1 8
Sargodha ..	Chak 122 S.B. (Part XII).	55 4 0	53 1 5	95.8	1,189 15 4	1,002 2 7	187 12 9	21 7 1	18 0 11	3 6 2
	Total	938 1 18	974 1 17	103.8 (average)	44,681 12 3	29,120 6 5	15,561 5 10	47 10 0 (average)	31 0 7 (average)	16 9 5 (average)

STATEMENT VI.

Showing Proportion of Land Revenue to Gross Income for Various Holdings under Investigation during 1930-31.

Intro.

Part.	District.	Holding.	Land revenue per acre.	Gross income per acre.	Percentage.
			Rs. a. p.	Rs. a. p.	
WELL-IRRIGATED FARMS.					
I.	Jullundur	A.	3 3 8	54 4 0	6·0
		B.	2 5 0	35 0 9	6·6
		C.	2 14 9	37 13 5	7·7
II.	Ludhiana	A.	1 13 7	20 5 5	9·1
		B.	2 0 8	36 3 9	5·6
III.	Hoshiarpur	A.	3 1 3	46 1 9	6·7
		B.	4 2 1	62 8 7	6·6
IV.	Amritsar	A.	1 14 0	29 8 0	6·4
		B.	1 1 9	37 3 6	3·0
		C.	2 3 2	50 8 0	4·4
V.	Multan	A.	1 9 3	21 10 11	7·3
		B.	1 12 3	29 1 3	6·1
		C.	0 13 5	15 6 6	5·5
VI.	Rohtak	A.	2 5 0	37 15 6	6·1
		B.	3 5 8	60 6 2	5·6
		C.	3 6 4	42 7 1	8·0
VII.	Jhelum	A.	1 11 4	26 15 11	6·3
		B.	1 12 2	23 9 9	7·5
		C.	1 6 5	12 3 3	11·5
	<i>Average</i> ..		2 4 1	35 12 1	6·3
CANAL-IRRIGATED FARMS.					
VIII.	Lyallpur	<i>Batai</i>	5 5 9	35 11 11	15·0
IX.	„	<i>Siri</i>	4 7 8	29 8 11	15·2
X.	„	Risalcwala	7 0 9	50 10 11	13·8
XI.	Montgomery	<i>Batai</i>	2 2 2	40 8 6	5·3
XII.	Sargodha	<i>Siri</i>	3 4 5	21 7 1	15·3
	<i>Average</i> ..		4 7 4	35 9 6	12·6

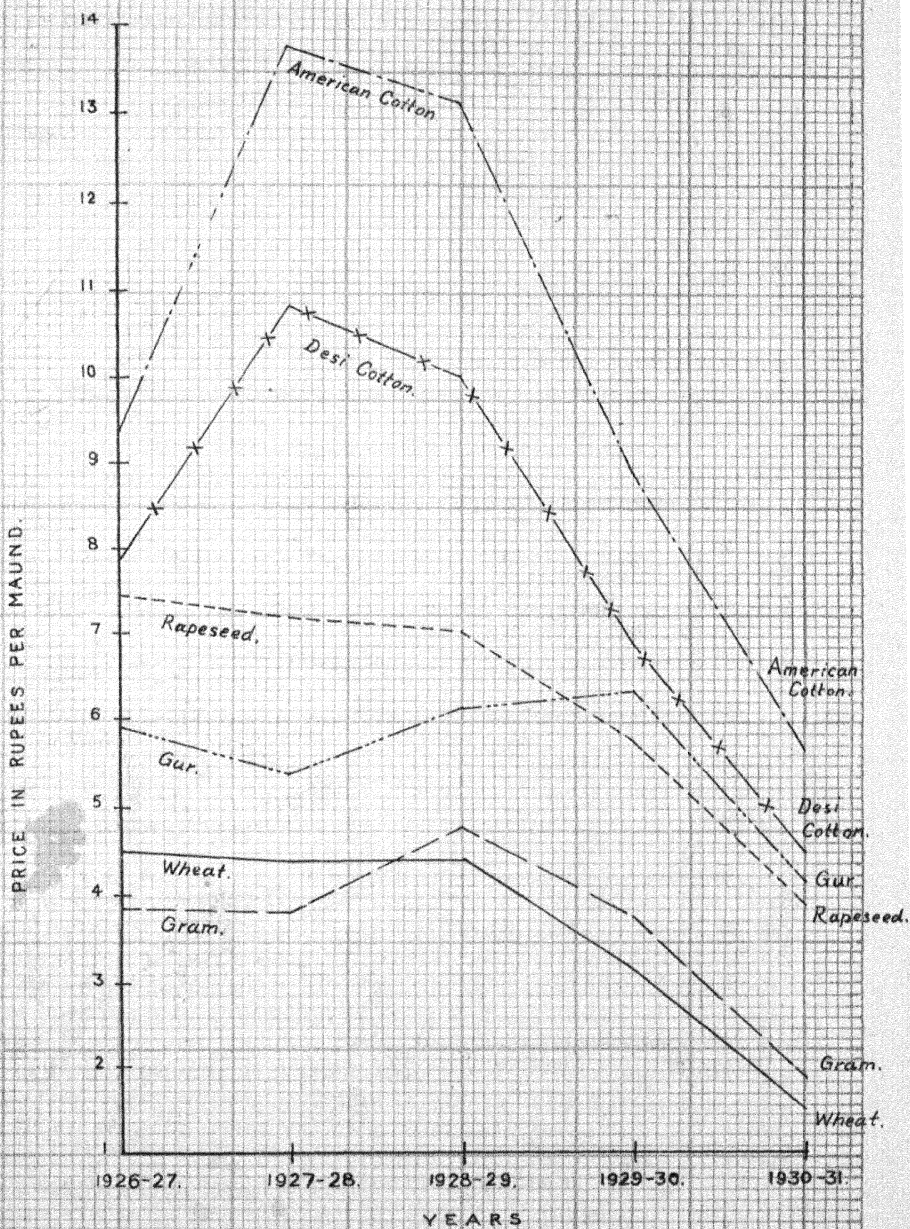
REFERENCE TABLE.

Showing the Parts in which the Accounts of the Various Holdings appear in the Publications for the Years Shown.

District.	Holding.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.
		Part.	Part.	Part.	Part.	Part.
Lyalpur	Risalewala	IV.	IV.	X.	X.	X.
	Chak 248 R. B.	I.	I.	VIII.	VIII.	VIII.
	Chak 41 J. B.	II.	II.	IX.	IX.	IX.
Sargodha	Chak 122 S. B. .. .. .	..	VII.	XII.	XII.	XII.
Montgomery	Chak 145/9 L.	V.	V.	XI.	XI.	XI.
Amritsar	Sheron .. .. .	..	..	IV. C.	IV. C.	IV. C.
	N. Punuan .. .. .	..	..	IV. A.	IV. A.	IV. A.
Rohtak	Larsaulh .. .. .	..	..	VI. A.	VI. A.	VI. A.
	Bighan .. .. .	..	..	VI. B.	VI. B.	VI. B.
	Kheora .. .. .	..	..	VI. D.	VI. D.	VI. D.
Multan	Ashaqpur .. .. .	..	..	V. A.	V. A.	V. A.
	Khubbarwal .. .. .	..	..	V. B.	V. B.	V. B.
Jullundur	Sargundi .. .. .	..	..	I. A.	I. A.	I. A.
	Ramunwal .. .. .	..	..	I. C.	I. C.	I. C.
	Badala .. .. .	..	VIII. C.	I. B.	I. B.	I. B.
Hoshiarpur	Dholanwal .. .. .	..	VIII. A.	III.	III. A.	III. A.
Ludhiana	Leelan .. .. .	..	..	II. A.	II. A.	II. A.
	Sidhwan .. .. .	..	..	..	II. B.	II. B.

GRAPH A.

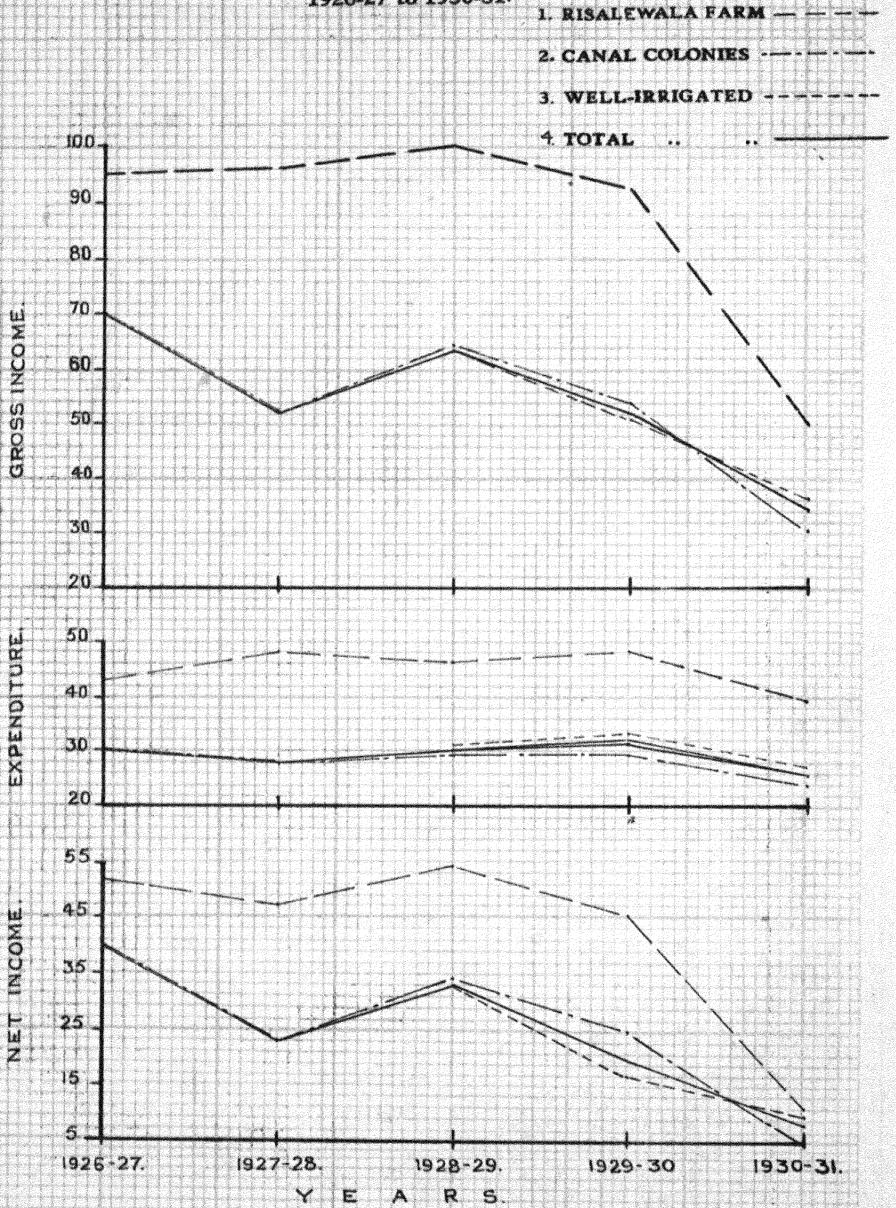
SHOWING WHOLESALE HARVEST PRICES FOR THE
MAIN CROPS IN THE PUNJAB.
DURING THE YEARS, 1926-27 to 1930-31.



GRAPH B.

SHOWING AVERAGE GROSS INCOME, EXPENDITURE
AND NET INCOME PER ACRE ON VARIOUS HOLDINGS
ON COMPARABLE BASIS FOR THE LAST 5 YEARS.

1926-27 to 1930-31.



NOTE: Figures for well-irrigated holdings are given for three years only.

COST OF WELL-IRRIGATION IN THE PUNJAB.

Cost of Raising to Maturity an Average Crop by Persian Wheel.

This portion of the volume deals with the cost of watering an average crop by Persian wheel. There is nothing new to be recorded with regard to the procedure adopted for working out the cost, this being explained in earlier accounts. As has already been mentioned in the introductory note, during the year under review regular records were maintained in Jhelum district as well, thus bringing the total number of districts to seven—the same as in 1928-29. There were 25 wells under observation in all these districts. These wells carried 30 Persian wheels: one well had three wheels, three wells had two each, and the remainder had one each. Some changes in holdings and wells during the year are worthy of note. Accounts at Doburji in Amritsar District and Rasulpur in Hoshiarpur District were started last year for the first time and three wells were examined at these places. It will be seen that there is an increase of six wells, in the total number of wells under observation in 1930, as compared with the preceding year.

The details of the average cost of bringing to maturity a crop by Persian wheel on different wells are shown in Statement I. The total cost of lifting water for the last three years is given below:—

Year.	TOTAL COST.	
	<i>Including manual labour.</i>	<i>Excluding manual labour.</i>
	Rs. a. p.	Rs. a. p.
1928-29	48 0 4	32 11 7
1929-30	40 13 1	27 14 4
1930-31 .. .	32 10 8	20 11 7

It will be seen from these figures that the total cost has been falling regularly. The reasons are not far to seek; a study of the individual items that make up the total cost will reveal the extent to which each is responsible for this fall. There has been very little variation in the area controlled by each well or Persian wheel during the past three years, with the result that there has been no appreciable difference in the overhead charges. The most important item influencing these figures is bullock labour, which varies a good deal from year to year. During the year under investigation, a slump in the prices of all agricultural products, including fodders

and concentrates, has reduced the figures under this head. As explained in the publication of 1928-29,* there are a good many other factors as well that influence the bullock cost, *e.g.*, nature of feeding, the time taken to irrigate an acre, the average number of irrigations required and the actual number of days worked during the year. Last year the time taken to irrigate an acre and the average number of irrigations were lower than those in 1928-29. This resulted in a decrease of about Rs. 5/- in the bullock cost. During the present year these items have changed, but only very slightly. The cost of manual labour is also controlled by those factors, and accordingly there will not be much difference in the figures of the present and those of the preceding year. The average number of irrigations required to bring to maturity an average crop is 4·26 against 4·37 last year and the time taken to irrigate an acre is 2·834 days against 3·04 days last year. The actual rainfall during the last three years along with the normal rainfall of various places is tabulated below :—

Place.	RAINFALL IN INCHES.			
	Normal.	1928-29.	1929-30.	1930-31.
Tarn Taran (Amritsar)	22·24	19·41	21·44	21·74
Sonepat (Rohtak)	23·00	11·35	15·91	11·61
Pind Dadan Khan (Jhelum)	17·58	12·83	19·90	16·02
Shujabad (Multan)	5·20	2·81	9·66	3·02
Jullundur	26·96	12·96	22·48	24·47
Nikodar (Jullundur)	22·47	14·21	15·51	22·45
Phillaur (Jullundur)	24·16	13·64	23·83	29·28
Hoshiarpur	35·51	22·18	29·86	28·16
Ludhiana	26·21	18·47	22·27	25·02
Jagraon (Ludhiana)	21·01	13·47	17·09	21·99

The foregoing figures show that the rainfall in Amritsar, Jullundur and Ludhiana Districts, as recorded at the above mentioned stations, is higher than that of 1929-30 ; while Rohtak, Jhelum and Multan had a little less rain than last year. With the exception of a few places, the rainfall, is still lower than the normal. Taken as a whole, however, the monsoon this year was slightly better than last year and this accounts for the lower average number of irrigations.

* *Ibid.* pages 3-8.

The cost of bringing to maturity an average crop comes to Rs. 20/11/7 per acre, after manual labour has been excluded from the total, and in each of the districts to which these accounts relate it is as follows :—

<i>District.</i>		<i>Average cost.</i>		
		Rs. a. p.		
Amritsar	13	1 4
Rohtak	26	4 2
Multan	14	7 8
Jullundur	23	12 8
Hoshiarpur	28	13 2
Ludhiana	19	2 11
Jhelum	16	14 4

Statement II. gives the efficiency of Persian wheels examined at various places. The efficiencies range from 27·8 per cent. to 76·2 per cent., whilst the average works out to 56·2 per cent. as against 53·7 and 47·56 per cent. during 1928-29 and 1929-30, respectively. It will be seen that the lowest figure has been obtained in Multan, where the Persian wheels are of the wooden type with earthenware pots as buckets. The discharge of the Persian wheels, (while working out the efficiencies), varied from a minimum of 1/17·7 of a cusec to a maximum of 1/4·6 of a cusec, with an average of 1/7·3 of a cusec. The normal discharge is somewhat lower than this figure, for under ordinary conditions of working the Persian wheel, bullocks stop occasionally, as they cannot work continuously at a high speed, whereas, when the efficiency of a Persian wheel is to be calculated, the bullocks must work without any stoppage. Statement VI. in column 3 gives the normal discharge at the well. It is 44·79 gallons per minute or 1/8·5 cusec.

Statement III. shows the labour performed by a pair of bullocks on various holdings during the year. The figures show an increase of about 9 days in total, whilst the time spent on irrigation is practically the same as last year. The work done by bullocks per acre of holding comes to 16·7 days. Of this, irrigation is responsible for 7·5 days leaving 9·2 days for cultivation. Thus the conclusions arrived at in the past two years regarding the working of draft cattle in well-irrigated areas, hold good, *i.e.*, bullocks have to lift water for irrigation in addition to the cultivation work.

Financial Position of Holdings under Well-Irrigation.

As mentioned elsewhere in this publication, a depression in agriculture of the worst kind that was ever witnessed in history so far as can be judged, was the special feature of the year. This depression resulted in a considerable fall in the income derived from the holdings, and this will be noticed from the figures given in Statement IV. In case of some of the holdings the cultivators not only received nothing as remuneration for their labour, but they actually suffered a loss that varied from Rs. 1/14/7 per acre in N. Punuan to Rs. 8/7/3 per acre in Ramunwal. Average gross income, expenditure and net income for all the farms for the last two years are set out below :—

		1929-30.		1930-31.			
		Rs.	a.	p.	Rs.	a.	p.
Gross Income	..	50	12	5	32	12	2
Expenditure	..	37	11	2	28	11	7
Net Income	..	13	1	3	4	0	7

The decline in income is considerable ; while the fall in expenditure is nearly one-half that of the income. This does not, however, represent the true state of affairs as the gross income last year was lower than that of a normal year owing to the low rainfall. In the statement under discussion the figures for the various holdings are not presented on comparable footings. This has been done in Statement V. by excluding the hired labour and rent, and including the land revenue payable on the rented portion of the holdings. A survey of these figures will show that the expenditure has fallen from Rs. 28 11/7 to Rs. 24/8/0 with a corresponding increase in the net income, which stands at Rs. 8/4/2 per acre, after making the required adjustments.

*Cost of Lifting Water Per Acre Inch of Irrigation
by Bullock Power and by Electricity.*

So far the total cost of lifting water for maturing a crop by Persian wheel has been considered. This does not give us any idea about the depth of irrigations applied to the crops. This is very important especially when a comparison between two appliances for lifting water is to be made. For this purpose, therefore, Statement VI. has been prepared. It shows the total cost, including and excluding manual labour, and similar figures per acre inch

both for bullock power and a pump worked by electricity at the Jullundur Agricultural Farm. The average depth of an irrigation by Persian wheel in 1930-31 comes to 2·69 inches as against 2·58 inches in 1929-30, thus showing an increase of 0·11 inches. It will be further seen from this statement that the depth of an irrigation in the case of the electric pump is 2·8 inches. In the last two years it has been 2·24 and 1·9 inches, respectively. A comparison of this table with that of last year will also show that in the preceding year the average cost of maturing a crop by electricity excluding manual labour was taken for all districts ; but this is perhaps not correct, as the total cost by electricity will vary according to the number of irrigations given in each district. This method has been adopted in the present year's statement. Assuming that the average number of irrigations required to bring to maturity a crop by an electric pump is the same as in case of a Persian wheel, it will be observed that the latter is a cheaper source of lifting water from a well than the former. The results of the present year are decidedly in favour of the Persian wheel. The cost per acre inch is Rs. 1/12/11 in case of the Persian wheel and Rs. 2/2/5 with electric pump, when the cost of the manual labour is ignored. These costs include the overhead charges for the well also. The total cost by electricity has been worked out as under :—

		Rs.	a.	p.
Average cost of the well	..	776	0	0
Interest at 8 % and depreciation at 3 % on Rs. 776/-	..	85	5	9
Average area cropped per well : 20·4 acres.				
Average overhead charges per acre		Rs.	a.	p.
		4	2	11
Interest and depreciation on pump- ing set.		7	15	2
Total overhead charges	..	12	2	1
Cost of current consumed	..	13	8	7
Total	..	25	10	8

The corresponding figure for the Persian wheel is Rs. 20/11/7, *vide*, Statement I.

*Comparison of Cost of Irrigation by Small Electric Pump
and Persian Wheel.*

The Electric Motor pump installed at the Jullundur Agricultural Farm in 1929, has now worked for more than two years. The following figures for the year under report have been supplied by courtesy of the Deputy Director of Agriculture, Jullundur :—

Total working time	.. 1,229 hours 25 minutes.
Total energy consumed	.. 2,509.63 units.
Total area irrigated	.. 74.2 acres.
Average discharge	.. 63.85 gallons per minute.

These figures when compared with those of last year show a considerable difference. The discharge has gone up by about 19 gallons per minute. In the preceding years the discharge was about 45 gallons, but by making some repairs and replacements, a substantial improvement has been brought about in the discharge. The average discharge during the year under report comes to about 64 gallons as compared with 70 gallons which this pump is supposed to lift. The cost of lifting water, according to this data, is worked out below :—

A.—PUMPING BY ELECTRICITY.

1. *Cost of current—*

Discharge of pump at 63.85 gallons per minute	= 3,831 gallons per hour.
Time required to irrigate an acre	= 16.6 hours.
Water applied per acre per irrigation	= 3,831 × 16.6 gallons.
	= 63,594.6 gallons.
	= 63,594.6
	= 22,687.5 = 2.8 inches
Current consumed per hour	= 2.04 units.
„ „ per acre per irrigation	= 2.04 × 16.6 = 33.864 units.
Cost of current per acre @ Rs. 0/1/6 per unit	= Rs. 3/2/10 per irrigation.

2. *Interest and depreciation on pumping installation—*

	Rs. a. p.
Capital cost	.. 900 9 0
Interest at 8% per annum	.. 72 0 9
Depreciation at 10% per annum	.. 90 0 10
<i>Total</i>	.. <u>162 1 7</u>

The average area irrigated by a well, as given in Statement I., is 20·4 acres. Taking this as the area commanded, the interest and depreciation on the pumping installation would, therefore, be Rs. 7/15/2 per acre. The cost of current for one irrigation is Rs. 3/2/10 and with 4·26 as the average number of irrigations required to mature a crop, the cost would be—

			Rs.	a.	p.
(a).	Cost of current	..	13	8	7
(b).	Interest and depreciation on installation	..	7	15	2
	<i>Total</i>	..	21	7	9

B.—LIFTING WATER BY PERSIAN WHEEL.

1. *Bullock labour.*—Figures in Statement I. show the cost of bullock labour per acre, on each of the 25 wells where accounts were maintained. The averages for each district are shown in Statements VII. and VIII. The average cost per acre of matured crop is only Rs. 11/5/1 as against Rs. 22/6/7 and Rs. 17/9/5, respectively, during the last two years. Exceptionally low prices of the feeding stuffs are mainly responsible for the great reduction in the cost of bullock labour.

2. *Interest and depreciation on Persian wheel:—*

			Rs.	a.	p.
Capital cost	..	..	175	0	0
Interest at 8 % per annum	..	..	14	0	0
Depreciation at	$\left\{ \begin{array}{l} 25\% \text{ per annum on Rs. } 56/- \\ 10\% \text{ per annum on Rs. } 119/- \end{array} \right.$	..	14	0	0
		..	11	14	5
	<i>Total</i>	..	39	14	5

The cost of this item comes to Rs. 1/15/4 per acre when the area matured per well is 20·4 acres. The total cost of lifting water to mature an acre by bullocks and Persian wheel, is therefore as follows:—

			Rs.	a.	p.
(a).	Cost of bullock labour	..	11	5	1
(b).	Interest and depreciation on Persian wheel.		1	15	4
	<i>Total</i>	..	13	4	5

The corresponding figure for pumping by electricity is Rs. 21/7/9. If the cost of current were taken at Rs. 0/1/0 per unit, the cost by electric pump would be Rs. 16/15/7, or Rs. 4/8/2 less

than the previous figure. Although this year the cost of pumping by electricity is lower than in the previous year, the very low cost of bullock labour has affected the balance in favour of the Persian wheel. It is cheaper than the electric pump even when current is charged for at Rs. 0/1/0 per unit. Statement VII. shows this point more clearly for different districts. It will be observed that the cost of lifting water by Persian wheel is less than that of an electric pump in all districts. However, it must be mentioned that such a state of affairs will remain only as long as the present low level of prices of foodstuffs continues.

Statement VIII. gives similar figures for Persian wheel and electric pump when the area irrigated per well for different districts is taken from the *Season and Crops Report*, 1930-31. The difference in favour of the Persian wheel is still more marked because of the low area commanded per well, and the high cost of interest and depreciation on a pumping set. The cost of current itself is more than that of the upkeep of bullocks. This has not been the case in the two previous years.

Statement IX. shows the loss of water due to evaporation and absorption in water channels. In order to study this point with greater care it was considered desirable to select some suitable places where the loss could be found out by fitting two water-testing boxes—one at the well and another at the outlet in the field, at the same time. Accordingly such an experiment was performed at two places—Ludhiana Agricultural Farm and Sargundi, and the losses as recorded at these places were 10·7 and 11·7 per cent., respectively. Including these figures in others found by means of a single water-testing box, by fitting at the well at one time and at the outlet later, the average comes to 12·8 per cent. as against a loss of 12·15 last year. It must, however, be mentioned that these figures have been collected from only a few places, as all wells are not suited for finding out the discharge at the outlet in the field. Discharge at the outlet with a water-testing box can only be found out when the water-course is running at a high level; were it not for these handicaps the number of observations would have been larger in order to give more information on the point under discussion.

STATEMENT I.

Showing the Cost of Bringing to Maturity a Crop by Persian Wheel at Various Places in the Province.

DISTRICT.	Locality of the well.	Cost of well.	Area cropped.	Average number of irrigations.	Time taken to irrigate an acre.	ITEMS OF COST.			TOTAL COST OF MATURING A CROP PER ACRE.		Number of Persian wheels.
						Overhead charges.	Bullock labour.	Manual labour.	Total.	Excluding manual labour.	
		Rs.	Acres.		Days.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
AMRITSAR	{ Sheron I. ..	845	33·80	2·86	1·75	4 2 6	4 6 0	5 0 1	13 8 7	8 8 6	1
	{ " II. ..	1,072	30·54	3·73	1·75	7 4 4	5 11 3	6 8 5	19 8 0	12 15 7	1
	{ N. Punuan I. ..	950	27·64	3·28	1·75	7 1 8	7 5 6	5 11 10	20 3 0	14 7 2	1
	{ " II. ..	1,320	27·54	3·80	1·75	7 6 10	8 8 2	6 10 5	22 9 5	15 15 0	1
	{ Doburji ..	900	36·85	4·13	2·00	4 3 2	9 5 4	8 4 2	21 12 8	13 8 6	1
ROHTAK	{ Bighan ..	770	9·73	7·45	3·00	13 0 8	17 6 2	22 5 7	52 12 5	30 6 10	1
	{ Larsauli I. ..	595	13·12	6·00	3·00	7 10 10	18 10 6	18 0 0	44 5 4	26 5 4	1
	{ " II. ..	800	16·14	4·04	3·00	10 10 7	12 9 0	12 1 11	35 5 6	23 3 7	2
	{ Kheora ..	685	11·30	6·40	3·00	11 10 0	13 6 11	19 3 2	44 4 1	25 0 11	1
MULTAN	{ Ashaqqur ..	800	13·75	3·83	5·00	8 15 7	7 15 8	19 2 5	36 1 8	16 15 3	1
	{ Khubarwal ..	780	23·40	3·27	5·00	5 7 2	6 8 11	16 5 7	28 5 8	12 0 1	1
JULLUNDUR	{ Badala I. ..	550	8·42	4·30	4·125	11 13 8	7 2 8	17 11 10	36 12 2	19 0 4	1
	{ " II. ..	650	8·42	2·90	4·125	12 14 10	4 13 4	11 15 5	29 11 7	17 12 2	1
	{ Ramunwal ..	676	18·36	4·50	3·00	6 3 6	16 6 2	13 8 0	36 1 8	22 9 8	1
	{ Sargundi ..	2,000	23·53	4·60	3·50	13 2 3	22 10 3	16 1 7	51 14 1	35 12 6	2
HOSHIARPUR	{ Dholanwal I. ..	420	3·28	3·40	4·50	24 0 2	17 14 9	15 4 10	57 3 9	41 14 11	1
	{ " II. ..	754	10·77	3·30	3·00	12 5 3	11 9 8	9 14 5	33 13 4	23 14 11	1
	{ Rasulpur I. ..	400	4·34	4·70	3·30	18 6 10	13 12 11	15 8 2	47 11 11	32 3 9	1
	{ " II. ..	493/3	4·75	0·60	2·00	15 9 6	1 9 8	1 12 10	19 0 0	17 3 2	1
LUDHIANA	{ Leelan I. ..	800	71·00	5·00	1·50	3 7 11	12 13 5	7 8 0	23 13 4	16 5 4	3
	{ " II. ..	600	26·00	5·20	1·50	6 9 3	13 5 8	7 12 10	27 11 9	19 14 11	2
	{ Sidhwan Khurd ..	640	19·25	5·60	1·80	6 9 4	14 11 2	10 1 3	31 5 9	21 4 6	1
JHELUM	{ Chak Shadi ..	300	16·71	4·40	2·50	5 3 0	7 6 5	11 0 0	23 9 5	12 9 5	1
	{ Pinnanwal ..	600	24·18	4·80	2·00	4 13 11	16 9 7	9 9 7	31 1 1	21 7 6	1
	{ Chak Danyal ..	1,000	27·00	3·80	3·00	6 6 9	10 3 5	11 6 5	28 0 7	16 10 2	1
	{ Average ..	776	*17·00	4·26	2·83	9 6 6	11 5 1	11 15 1	32 10 8	20 11 7	30 (total).

*or per well, 20·4 acres.

STATEMENT II.
Showing the Efficiency of Persian Wheels at Various Places in the Province.

DISTRICT.	Locality of the well.	DEPTH OF		DISCHARGE.		Draft.	SPEED OF BULLOCKS.		Efficiency per percentage.
		Water table below soil surface.	Water in the well.	Cusecs.	Gallons per minute.		Feet per minute.	Miles per hour.	
AMRITSAR	{ Sheron I. II. N. Punuan* Doburi	Feet.	Feet.						
		24-00	7-67	1/4-6	81-80	201-1	2-29	64-6	
		22-31	7-71	1/6-0	62-80	146-2	1-66	53-9	
		28-50	4-75	1/5-7	65-79	202-2	2-30	57-6	
		23-20	5-90	1/6-5	57-91	149-1	1-69	53-3	
ROHTAK	{ Bighan Larsauli Kheora	18-50	7-50	1/8-2	45-66	116-2	1-32	45-5	
		25-00	4-25	1/8-9	42-47	110-3	1-25	59-3	
		16-90	9-40	1/6-3	59-80	150-0	1-70	50-4	
		19-20	14-30	1/11-1	33-74	208-0	2-36	27-8	
JULLUNDUR	{ Badala I. II. Ramunwal. † Sargundi	19-17	2-50	1/8-0	47-10	143-8	1-63	61-5	
		19-33	8-90	1/7-7	48-70	148-7	1-69	61-1	
		31-33	6-20	1/6-1	61-80	197-8	2-25	61-0	
		44-00	3-50	1/9-6	39-10	141-5	1-61	70-2	
		25-50	2-83	1/17-7	21-20	143-5	1-63	39-3	
HOSSIAHPUR	{ Dholanwal I. II. Rasulpur I. II.	30-66	9-33	1/11-2	33-40	127-7	1-59	57-5	
		16-60	7-75	1/10-0	37-50	152-9	1-74	53-7	
		16-25	8-08	1/7-3	51-20	134-1	1-52	60-1	
		24-30	13-50	1/6-7	55-80	157-7	1-79	76-2	
LUDHIANA	{ Leelan Sidhwan Khurd	20-00	8-75	1/6-6	56-50	110-7	2-09	55-6	
		19-00	1-50	1/6-7	56-10	224-8	2-55	55-6	
JHEJUM	{ Chak Shadi Pinnanwal Chak Daayal	19-50	4-25	1/8-6	43-40	92-4	1-90	54-8	
		22-00	2-75	1/6-5	57-40	249-7	2-84	54-5	
		Average	6-73	1/7-3	50-91	165-1	1-88	56-2	

* Half wooden and half iron.

† Wooden.

‡ Well sunk further down and hence this improvement.

STATEMENT III.

Showing Days' Work done on Cultivation and Irrigation per Pair of Working Animals.

DISTRICT.	Locality.	DAYS' WORK PER PAIR PER ANNUM.			DAYS' WORK PER ACRE.		
		Total.	Cultiva- tion.	Irriga- tion.	Total.	Cultiva- tion.	Irriga- tion.
AMRITSAR ..	{ N. Punuan ..	196·6	134·6	62·0	11·7	8·0	3·7
	{ Sheron ..	125·0	95·5	29·5	10·8	8·2	2·6
	{ Doburji ..	195·5	167·8	27·7	10·2	8·8	1·4
ROHTAK ..	{ Larsauli ..	234·2	100·1	134·1	20·6	8·8	11·8
	{ Bighan ..	177·0	61·1	115·9	23·9	8·2	15·7
	{ Kheora ..	259·9	108·7	151·2	24·3	10·2	14·1
MULTAN ..	{ Ashaqpur ..	167·9	46·2	121·7	11·9	3·3	8·6
	{ Khubbarwal ..	177·9	60·0	117·9	23·7	8·0	15·7
HOSHIAHPUR ..	{ Dholanwal ..	131·1	105·1	26·0	15·5	12·4	3·1
	{ Rasulpur ..	201·2	159·0	42·2	18·1	14·3	3·8
JULLUNDUR ..	{ Badala ..	162·5	112·1	50·4	25·9	17·8	8·1
	{ Sargundi ..	156·1	93·9	62·2	17·8	10·7	7·1
	{ Ramunwal ..	106·6	47·2	59·4	22·1	9·8	12·3
LUDHIANA ..	{ Leelan ..	164·8	104·9	59·9	6·4	1·0	2·4
	{ Sidhwan Khurd ..	223·1	138·6	84·5	14·6	9·3	5·3
JHELUM ..	{ Chak Shadi ..	176·3	97·6	78·7	19·0	10·5	8·5
	{ Pinnanwal ..	134·9	81·0	53·9	12·3	7·4	4·9
	{ Chak Danyal ..	148·1	66·7	81·4	11·5	5·2	6·3
	<i>Average</i> ..	<i>174·4</i>	<i>98·9</i>	<i>75·5</i>	<i>16·7</i>	<i>9·2</i>	<i>7·5</i>

شعبہ ماہی پالائی و عمولیات
کراچی، پاکستان

Showing Income, Expenditure and Working Days

DISTRICT.	Farm.	AREA HELD.			Area cropped.	Inten- sity of crop- ping.	TOTAL.	
		Barani.	Irrigated.	Total.			Gross income.	Expenditure.
		A. K. M.	A. K. M.	A. K. M.			Rs. a. p.	Rs. a. p.
AMRITSAR.	{ Sheron ..	3 4 3	8 0 2	11 4 5	13 6 13	119·9	429 3 3	428 11 9
	{ N Pannan ..	0 3 19	16 2 15	16 6 14	19 1 15	114·1	496 11 9	528 14 5
	{ Dcburji ..	2 6 15	16 3 7	19 2 2	26 1 1	135·7	972 12 6	819 12 7
ROHTAK.	{ Bighan ..	4 4 1	7 1 15	11 5 16	14 2 4	121·7	708 0 10	475 5 7
	{ Larsauli ..	0 7 10	10 3 6	11 2 16	12 1 9	107·3	430 15 1	480 8 10
	{ Kheora ..	5 5 0	10 3 8	16 0 8	20 3 4	126·8	681 3 5	594 6 9
MULTAN.	{ Ashaqqur ..	..	15 7 0	15 7 0	15 7 0	100·0	344 3 11	292 1 0
	{ Khubbarwal..	..	30 0 0	30 0 0	33 3 10	111·5	872 5 11	587 0 4
	{ Qasba Maral..	..	29 7 0	29 7 0	29 0 0	97·1	460 4 3	366 6 0
JULLENDUR.	{ Radala ..	7 3 9	3 0 2	10 3 11	13 5 1	130·5	366 0 4	194 3 4
	{ Ramunwal ..	7 3 9	7 0 5	14 3 14	18 6 0	129·6	547 3 11	669 7 11
	{ Sargundi ..	26 7 19	12 3 17	39 3 16	46 0 6	116·9	2,141 6 11	1,724 6 3
HOSH- IARPUR.	{ Dholanwal ..	7 6 0	0 5 11	8 3 11	9 7 0	116·9	389 5 6	315 10 10
	{ Rasulpur ..	6 5 19	4 2 18	11 0 17	14 6 9	133·3	694 8 8	501 3 2
LUDHI- ANA.	{ Sidhwan ..	13 1 0	5 4 0	18 5 0	24 4 6	131·7	674 14 5	746 5 9
	{ Leelan ..	44 5 0	6 3 0	51 0 0	59 1 19	116·2	1,037 5 4	1,004 5 9
JHEUM.	{ Chak Shadi ..	13 4 1	14 2 6	27 6 7	24 2 19	87·7	750 3 2	520 9 3
	{ Pinnanwal ..	11 0 7	10 7 3	21 7 10	13 6 19	63·2	517 14 4	631 13 3
	{ Chak Danyal..	16 4 15	9 1 13	25 6 8	12 4 12	48·7	314 13 7	367 1 7
	<i>Average ..</i>	<i>9 0 18</i>	<i>11 3 19</i>	<i>20 4 17</i>	<i>22 1 14</i>	<i>107·8</i>	<i>675 3 10</i>	<i>592 0 4</i>

NOTE.—During this year, accounts were kept on 19 holdings. Of these, 13 were run on an average shown by the following figures:—

Average of 13 farms showing profit ..
 „ of 6 „ „ loss ..

iv.

on Various Well-Irrigated Holdings in the Province.

Net income.	PER ACRE.			WORKING DAYS.				WORKING DAYS PER ACRE OF HOLDINGS.		No. of working cattle.
	Gross income.	Expenditure.	Net income.	Total.		On Wells.		Men.	Bullocks.	
				Men.	Bullocks.	Men.	Bullocks.			
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.							
0 7 6	37 3 6	37 2 10	0 0 8	360·1	125·0	58·7	29·5	31·2	10·8	2
-32 2 8	29 8 0	31 6 7	-1 14 7	393·6	196·6	123·8	62·0	23·4	11·7	2
152 15 11	50 8 0	42 9 0	7 15 0	554·1	195·5	55·4	27·7	28·8	10·2	2
232 11 3	60 6 2	40 8 8	19 13 6	658·0	280·2	367·3	183·6	56·1	23·0	3½
-19 9 9	37 15 6	42 5 5	-1 5 11	620·0	234·2	268·0	134·1	54·6	20·6	2
86 12 8	42 7 1	37 0 7	5 6 6	776·2	389·8	453·6	226·8	48·4	24·3	3
52 2 11	21 10 11	18 6 4	3 4 7	429·0	188·9	273·8	136·9	27·0	11·9	2½
285 5 7	29 1 3	19 9 1	9 8 2	1304·2	711·4	943·5	471·8	46·5	23·7	8
93 14 3	15 6 6	12 4 3	3 2 3	..	..	..	..	..	..	6
171 13 0	35 0 9	18 9 6	16 7 3	507·9	270·9	168·2	84·1	48·6	25·9	3½
-122 4 0	37 13 5	46 4 8	-8 7 3	742·1	319·9	357·9	178·1	59·4	22·1	4 + 1 camel.
417 0 8	54 4 0	43 10 11	10 9 1	1529·6	702·4	505·2	279·7	38·6	17·8	9½
73 10 8	46 1 9	37 6 2	8 11 7	275·3	131·1	47·4	26·0	32·6	15·5	3
193 5 6	62 8 7	45 2 0	17 6 7	478·7	201·2	90·4	42·2	43·1	18·1	2
-71 1 1	36 3 9	40 0 2	-3 12 5	866·1	260·3	195·9	98·6	46·5	14·0	2½
32 15 7	20 5 5	19 11 1	0 10 4	1001·3	328·5	230·5	119·8	19·6	6·4	2½ + ½ camel.
229 9 11	26 15 11	18 11 8	8 4 3	934·5	528·8	472·1	236·1	33·6	19·0	6
-113 14 11	23 9 9	28 12 10	-5 3 1	509·8	269·8	215·5	107·8	23·2	12·3	4
-52 4 0	12 3 3	14 3 8	-2 0 5	564·1	296·1	324·8	162·8	21·9	11·5	4
83 3 6	32 12 2	28 11 7	4 0 7	699·7	312·8	286·2	143·2	32·2	14·4	70½ + 1½ camel (total)

profit of Rs. 7/2/7 per acre, whilst the remaining 6 sustained a loss of Rs. 4/0/10 on an average. This is

Gross income.	Expenditure.	Net income.
Rs. a. p.	Rs. a. p.	Rs. a. p.
34 13 7	27 11 0	7 2 7
27 5 9	31 6 7	-4 0 10

STATEMENT V.
Showing Income and Expenditure of the Cultivators on Well-Irrigated Holdings, if the Whole Land had Belonged to Them.

DISTRICT.	Farm.	Area held.	Intens- ity of crop- ping.	TOTAL.				PEE ACRE.		
				Gross income.	Expendi- ture.	Net income.	Gross income.	Expendi- ture.	Net income.	
		A. K. M.	Percent.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
AMRITSAR	{ Sheron N. Punuan Doburji	.. 11 4 5	119.9	429 3 3	277 3 1	152 0 2	37 3 6	25 7 9	11 11 9	
		.. 16 6 14	114.1	496 11 9	423 3 11	73 7 10	29 8 0	25 2 2	4 5 10	
		.. 19 2 2	135.7	972 12 6	508 11 7	464 0 11	59 8 0	26 6 7	24 1 5	
ROHTAK	{ Bighan Larsauli Kheora	.. 11 5 16	121.7	708 0 10	389 5 7	318 11 3	60 6 2	33 3 8	27 2 6	
		.. 11 2 16	107.3	430 15 1	403 4 9	27 10 4	37 15 6	35 7 8	2 7 10	
		.. 16 0 8	126.8	681 3 5	515 7 6	165 11 11	42 7 1	32 1 10	10 5 3	
MULTAN	{ Ashaqpur Khubbarwal Qasba Maral	.. 15 7 0	100.0	344 3 11	179 9 0	164 10 11	21 10 11	11 5 0	10 5 11	
		.. 30 0 0	111.5	872 5 11	533 12 4	338 9 7	29 1 3	17 12 8	11 4 7	
		.. 29 7 0	97.1	460 4 3	366 6 0	93 14 3	15 6 6	12 4 3	3 2 3	
JULLUNDUR	{ Badala Ramanwal Sargundi	.. 10 3 11	130.5	366 0 4	194 3 4	171 13 0	35 0 9	18 9 6	16 7 3	
		.. 14 3 14	129.6	547 3 11	641 3 5	-93 7 6	37 13 5	44 5 5	-6 8 0	
		.. 39 3 16	116.9	2,141 6 11	1,459 12 10	681 10 1	54 4 0	36 15 8	17 4 4	
HOSHARPUR	{ Dholanwal Rasulpur	.. 8 3 11	116.9	389 5 6	282 8 10	106 12 8	46 1 9	33 7 5	12 10 4	
		.. 11 0 17	133.3	694 8 8	427 4 4	267 4 4	62 8 7	38 7 7	24 1 0	
		.. 18 5 0	131.7	674 14 5	588 4 9	86 9 8	36 3 9	31 8 5	4 11 4	
LUDHIANA	{ Leelan	.. 51 0 0	116.2	1,037 5 4	884 0 4	153 5 0	20 5 5	17 5 4	3 0 1	
JHELM	{ Chak Shadi Pinnanwal Chak Danyal	.. 27 6 7	87.7	750 3 2	520 9 3	229 9 11	26 15 11	18 11 8	8 4 3	
		.. 21 7 10	63.2	517 14 4	631 13 3	-113 14 11	23 9 9	28 12 10	-5 3 7	
		.. 25 6 8	48.7	314 13 7	367 1 7	-52 4 0	12 3 3	14 3 8	-2 0 5	
		Average	.. 20 4 18	107.8	675 3 10	504 15 0	170 4 10	32 12 2	24 8 0	8 4 2

STATEMENT

Showing the Cost Per Acre Inch of

DISTRICT.	Locality.	Dis-charge on the well.	Time taken to irrigate an acre.	Depth of one irrigation.	Number of irrigations.	Total depth of irrigations.
		Gallons per minute.	Days.	Inches.		Inches.
AMRITSAR	Sheron I.	62.40	1.75	2.31	2.86	6.607
	.. II.	63.55	1.75	2.35	3.73	8.766
	Naushera Punuan I.	61.20	1.75	2.27	3.80	8.626
	.. .. II.	63.80	1.75	2.36	3.28	7.741
	Doburji	52.12	2.00	2.21	4.13	9.127
ROHTAK	Bighan	39.19	3.00	2.49	7.45	18.551
	Larsauli I.	40.33	3.00	2.56	6.00	15.360
	.. II.	45.73	3.00	2.90	4.04	11.716
MULTAN	Kheora	44.37	3.00	2.82	6.40	18.048
	Ashaqpur	31.00	5.00	3.28	3.83	12.562
	Khubbarwal	31.00	5.00	3.28	3.27	10.726
JULLUNDUR	Badala I.	31.40	4.125	2.74	4.30	11.782
	.. II.	31.40	4.125	2.74	2.90	7.946
	Ramunwal	40.60	3.00	2.58	4.50	11.610
	Sargundi	33.20	3.50	2.46	1.60	11.316
HOSHIARPUR	Dholanwal I.	19.70	4.50	1.88	3.40	6.392
	.. II.	33.40	3.00	2.12	3.30	6.996
	Rasulpur I.	31.90	3.30	2.23	4.70	10.481
	.. II.	51.20	2.00	2.17	1.22	2.647
LUDHIANA	Leelan I.	55.80	1.50	1.77	5.00	8.850
	.. II.	61.50	1.50	1.95	5.20	10.140
	Sidhwan	49.30	1.80	1.88	5.60	10.528
JHELUM	Chak Shadi	47.00	2.50	2.49	4.40	10.956
	Pinnanwal	53.00	2.00	2.24	4.80	10.752
	Chak Danyal	45.60	3.00	2.80	3.80	10.982
	<i>Average</i>	44.79	2.83	2.69	4.26	11.459

VI.

Irrigation by Bullock Power and Electricity.

COST BY BULLOCK LABOUR.				COST PER ACRE INCH.				Average number of irrigations.	Depth of one irrigation.	Total depth.	COST BY ELECTRICITY.				COST PER ACRE INCH.			
Total.		Excluding manual labour.		Total.		Excluding manual labour.					Total.		Excluding manual labour.		Total.		Excluding manual labour.	
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Days.	Inches.	Inches.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.		
13	8 7 8 8 6	2	0 8 1 4 8	3.56	2.8	9.968			30	13	3.23	7 1 3	1 6	2	5 8			
10	8 0 12 15 7	2	3 7 1 7 8															
22	9 5 15 15 0	2	9 11 1 13 7															
20	3 0 14 7 2	2	9 10 1 13 10															
21	12 8 13 8 6	2	6 2 1 7 9															
52	12 5 30 6 10	2	13 6 1 10 3	5.97	2.8	16.716			43	7	9.31	1 7	2	9 7	1	13 9		
44	5 4 26 5 4	2	14 2 1 11 5															
35	5 6 23 3 7	3	0 3 1 15 9															
44	4 1 25 0 11	2	7 3 1 6 3															
36	1 8 16 15 3	2	14 0 1 5 7															
28	5 8 12 0 1	2	10 4 1 1 9	3.55	2.8	9.940			30	12	5.23	6 7	3	1 6	2	5 8		
29	11 7 17 12 2	2	8 4 1 8 1															
36	1 8 22 9 8	4	8 8 2 13 6															
51	14 1 35 12 6	4	7 7 3 1 4															
36	12 2 19 0 4	3	4 0 1 10 11															
57	3 9 41 14 11	8	15 3 6 9 0	3.155	2.8	8.834			28	11	3.22	2 6	3	4 0	2	8 2		
33	13 4 23 14 11	4	13 4 3 6 9															
47	11 11 32 3 9	4	8 11 3 1 2															
48	0 2 45 9 2	18	2 2 17 3 6															
23	13 4 16 5 4	2	11 1 1 13 6															
27	11 9 19 14 11	2	11 9 1 15 6	5.27	2.8	14.756			39	13	0.28	14 0	2	11 2	1	15 4		
31	5 9 21 4 6	2	15 8 2 0 4															
23	9 5 12 9 5	2	2 5 1 2 5															
31	1 1 21 7 6	2	14 3 1 15 11															
28	0 7 16 10 2	2	8 10 1 8 3															
32	10 8 20 11 7	2	13 7 1 12 11	4.26	2.8	11.928			34	8	1.25	10 8	2	14 3	2	2 5		

STATEMENT VII.

Comparison of Average Cost Per Acre of Matured Crop of Lifting Water by Bullocks and Persian Wheel, and by Electricity and Small Pump, Calculated from Observations Kept.

District.	Average number of irrigations.	Average area irrigated per well.	COST BY BULLOCKS.			COST BY ELECTRICITY.			
			Bullocks labour.	Interest and depreciation on Persian wheel.	Total cost.	Cost of current at Rs. -/1/6 per unit.	Interest and depreciation on pumping plant.	Total cost at Rs. -/1/6 per unit.	Total cost if current is Rs. -/1/- per unit.
		Acre.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Amritsar	.. 3.56	31.3	7 0 10	1 4 5	8 5 3	11 5 0	5 2 10	16 7 10	12 11 6
Rohtak	.. 5.97	12.6	15 8 2	3 2 8	18 10 10	18 15 6	12 13 10	31 13 4	25 8 2
Multan	.. 3.55	18.6	7 4 4	2 2 4	9 6 8	11 4 6	8 11 5	19 15 11	16 3 9
Jullundur	.. 4.08	14.7	12 12 1	2 11 5	15 7 6	12 15 5	11 0 5	23 15 10	19 10 8
Hoshiarpur	.. 3.155	5.8	14 15 8	6 14 1	21 13 9	10 0 5	27 15 2	37 15 7	34 10 1
Ludhiana	.. 5.27	38.8	13 10 1	1 0 5	14 10 6	16 11 11	4 2 10	20 14 9	15 5 5
Jhelum	.. 4.33	22.6	11 6 6	1 12 3	13 2 9	13 12 1	7 2 9	20 14 10	16 5 6
Average	.. 4.26	20.4	11 5 1	1 15 4	13 4 5	13 8 7	7 15 2	21 7 9	16 15 7

Note.—These figures are calculated according to the intensity of cropping on 25 wells where accounts were actually kept during 1930-31.

STATEMENT VIII.

Comparison of Average Cost Per Acre of Matured Crop of Lifting Water by Bullocks and Persian Wheel and by Electricity and Small Pump.

District.	Average number of irrigations.	Average area irrigated by each well.	COST BY BULLOCKS.			COST BY ELECTRICITY.				
			Bullock labour.	Interest and depreciation on Persian wheel.	Total cost.	Cost of current at Rs. -/1/6 per unit.	Interest and depreciation on pumping plant.	Total cost charging current at Rs. -/1/6 per unit.	Total cost if current is Rs. -/1/- per unit.	
Amritsar	..	3.56	26.0	Rs. a. p. 7 0 10	Rs. a. p. 1 8 7	Rs. a. p. 8 9 5	Rs. a. p. 11 5 0	Rs. a. p. 6 4 4	Rs. a. p. 17 9 4	Rs. a. p. 13 13 0
Rohtak	..	5.97	11.5	15 8 2	3 7 6	18 15 8	18 15 6	14 1 5	33 0 11	26 11 9
Multan	..	3.55	4.6	7 4 4	8 10 9	15 15 1	11 4 6	35 3 10	46 8 4	42 12 2
Jullundur	..	4.08	11.9	12 12 1	3 5 8	16 1 9	12 15 5	13 9 11	26 9 4	22 4 2
Hoshiarpur	..	3.16	7.3	14 15 8	5 7 5	20 7 1	10 0 5	22 3 3	32 3 8	28 14 2
Ludhiana	..	5.27	17.7	13 10 1	2 4 1	15 14 2	16 11 11	9 2 6	25 14 5	20 5 1
Jhelum	..	4.33	5.0	11 6 6	7 15 8	19 6 2	13 12 1	32 6 9	46 2 10	41 9 6
<i>Average</i>	..	4.26	11.9	11 5 1	3 5 8	14 10 9	13 8 7	13 9 11	27 2 6	22 10 4

Note.—These figures are calculated from the area under well-irrigation and the number of wells in each district as given in the *Season and Crops Report, 1930-31.*

STATEMENT IX.

Showing Loss of Water Due to Evaporation and Absorption.

DISTRICT.	Locality.	Month of observation.	Dis-charge at well.	Dis-charge at outlet in the field.	Distance of outlet from the well.	Loss.
			Gallons per minute.	Gallons per minute.	Feet.	Per cent.
AMRITSAR ..	Sheron ..	December ..	52·5	45·3	272	13·6
ROHTAK ..	Larsauli ..	June ..	49·0	43·3	140	11·6
..	Bighan ..	.. ..	42·2	36·6	191	13·3
..	..	December ..	36·2	30·8	281	15·0
..	Kheora ..	June ..	43·4	39·1	166	10·0
..	..	December ..	45·3	37·7	258	16·8
JULLUNDUR ..	Sargundi ..	June ..	26·5	23·4	177	11·7
LUDHIANA ..	Agricultural Farm.	.. ..	37·5	33·5	352	10·7
<i>Average</i>						
					230	12·8

PART 1.

Accounts of three holdings under Well-

Irrigation in the Jullundur District

during the year

1st July 1930 to 30th June 1931.

PART I.

The accounts of the three holdings in the Jullundur District ^{Part I.} for the year 1930-31, are given here in the same order as those in Part I. of the *Farm Accounts, 1929-30*. Cultivators A. and C. farmed their own land, while B. was a tenant working on *half-batai* conditions. The remission of land revenue to the extent of five annas in a rupee allowed by the Government in *rabi* dues lowered this item of expenditure a little, as shown by the figures given below :—

Holding.			LAND REVENUE PER ACRE.	
			1929-30.	1930-31.
			Rs. a. p.	Rs. a. p.
A.	..	..	3 9 8	3 3 8
B.	..	..	2 11 11	2 5 0
C.	..	..	3 15 11	2 14 9

The income, expenditure, cropping and time spent on cultivation in each of the holdings are given below :—

Farm.	Area held.	Intensity of cropping.	PER ACRE.			WORKING DAYS PER ACRE.	
			Gross income.	Expenditure.	Net income.	Men.	Bullocks.
	A. K. M.	Per cent.	Rs. a. p.	Rs. a. p.	Rs. a. p.		
A.	.. 39 3 16	116.9	54 4 0	43 10 11	10 9 1	38.6	17.8
B.	.. 10 3 11	130.5	35 0 9	18 9 6	16 7 3	48.6	25.9
C.	.. 14 3 14	129.6	37 13 5	46 4 8	8 7 3	50.4	22.1

Owing to low prices the income is much less than that of last year. In Holding C, there is again a net loss this year of Rs. 8/7/3 per acre.

Part I. For the sake of ready comparison, however, the holdings have been brought under equal conditions by excluding cost of labour from the expenditure, if it has been paid out, and taken as if the whole land cultivated by these people were owned by them. The resulting figures of income and expenditure are shown in the following table :—

Holding.	PER ACRE.		
	Gross income.	Expendi- ture.	Net income.
	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.	54 4 0	36 15 8	17 4 4
B.	35 0 9	18 9 6	16 7 3
C.	37 13 5	44 5 5	6 8 0

HOLDING A.

The farm accounts on this holding have now been kept for three successive years. The previous years' accounts have appeared as Holding A. in Part I. of the *Farm Accounts* for 1928-29 and 1929-30, respectively.* The total area of the holding this year was 39 acres, 3 kanals and 16 marlas. The well-irrigated area was 12 acres, 3 kanals and 17 marlas against 22 acres, 5 kanals and 2 marlas last year. Thus, the *chahi* area dropped from more than half the total area to less than one-third. Part
I.A.

The three members of the landlord's family were helped in the cultivation work by two permanent labourers, each of whom received Rs. 100/- plus food and clothing from the landlord : their total dues amounted to Rs. 253/5/0. Occasional help was also rendered by a shoemaker who was given produce worth Rs. 11/4/5. The total amount under the item "Labour" was thus Rs. 264/9/5 or Rs. 6/11/3 per acre against Rs. 9/7/11 the previous year.

The cultivation work averaged 38.6 days of one man and 17.8 days of a pair of bullocks per acre ; of these, 12.8 days of one man and 7.1 days of a pair of bullocks per acre were spent on irrigation from the wells. The corresponding figures for 1929-30 were 11.5 and 6.3 days, respectively. It will be observed that although the well-irrigated area, as already pointed out, is much less than what it was last year, the time spent on irrigation is more. This increase is due to the additional area under sugarcane by about 5 kanals : the manual labour also includes time for lifting water by baskets from a pond in order to irrigate maize ; this was equal to 28.3 days of one man.

The cost of upkeep of bullocks averaged Rs. 25/8/3 per acre against Rs. 26/14/10. Owing to the low prices of *bhusa* and grain fed to them, this figure would have been lower still but for the death of a bullock worth Rs. 50/-, which amount had to be written off, and also because of the transference of four young bullocks to the 'bullock account' during the year.

The *chahi* land was commanded by four wells. Two Persian wheels were owned entirely by the landlord, while he had 1/4th share in another and 1/9th in a fourth. On these wells he rented out 1/19th, 3/5th, 1/2nd and 3/7th shares of his land, respectively. He bore all the expenses of maintaining the Persian wheels, but only proportional charges have been reckoned against the income from the area under direct cultivation to which these accounts refer. The expenses on Persian wheels averaged Rs. 1/4/5 per acre against Rs. 3/3/6 last year.

The intensity of cropping was 116.9 per cent. against 114.8 in 1929-30 ; the gross income from the holding averaged Rs. 54/4/0 per acre against Rs. 78/3/6 ; expenditure Rs. 43/10/4 against Rs. 52/12/6 and net income Rs. 10/9/1 against Rs. 25/7/0 per acre last year.

**Ibid.* pages 40-47 and 26-31.

Labour Sheet showing the number of Days' Work performed by Men and Bullocks throughout the Year.

Part
I. A.

	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total days.	Days per acre.
Farm cultivation ..	.. 142.0	163.6	99.9	122.2	121.2	125.4	88.7	62.0	64.8	230.7	184.3	117.8	1,522.6	38.6
Other work ..	.. 6.8	15.8	1.9	..	32.9	..	3.0	2.5	7.4	4.5	13.0	27.4	115.2	2.9
Bullock cultivation ..	.. 71.9	56.7	67.2	61.7	56.9	63.8	45.4	37.8	34.1	29.5	121.3	56.1	702.4	17.8
Bullocks on other work ..	.. 1.5	2.9	..	..	6.3	..	..	2.5	1.0	..	..	..	14.2	0.4
Well-irrigation ..	.. 27.6	39.0	16.3	42.6	69.4	95.5	62.0	..	26.0	26.1	29.8	70.9	505.2	12.8
{ Manual labour ..														
{ Bullock ..	.. 17.8	22.8	9.3	23.4	34.3	49.4	36.6	..	13.0	15.5	16.8	40.8	279.7	7.1

*These items have been included in 'Farm' and 'Bullock' Cultivations above.

INCOME.

A. K. M.
Area held—39 3 16

Part
I. A.

Crop.	Area.	Outturn.	Rate		Value.
			per maund.		
	A. K. M.	Mds. Srs	Rs. a. p.	Rs. a. p.	
Sugarcane (molasses) ..	0 3 10	12 36	4 5 7	56 1 8	
„ (gur) ..	0 4 15	9 24	3 13 6	36 14 5	
„ (shakkar) ..	1 0 7	47 28	4 7 1	211 14 8	
„ (sold as seed) ..	..	..	..	10 0 0	
Sankukra* ..	..	0 10	7 11 1	1 14 9	
Cotton ..	1 7 2	22 26	3 13 6	87 1 0	
Maize ..	2 7 11	62 0	1 1 9	68 12 6	
„ stalks ..	..	..	..	15 8 0	
Jowar (from chari) ..	..	6 0	3 3 7	19 5 6	
Sau ..	0 1 10	0 12	10 0 0	3 0 0	
Mash ..	0 6 9	1 24	5 14 1	9 6 6	
„ bhusa ..	..	3 0	1 0 0	3 0 0	
Wheat ..	13 4 16	270 32	1 6 0	372 5 7	
Wheat-gram ..	9 3 18	136 36	1 8 0	205 5 7	
„ bhusa ..	..	795 8	0 4 9	236 1 2	
Chari (chahi) ..	1 5 16	..	8 0 0	110 6 5	
„ (barani) ..	8 7 7	..	5 5 4	380 8 6	
Senji-methe ..	0 7 19	..	6 10 8	53 0 0	
Shaftal ..	0 5 2	} .. Per kanal.	8 0 0	96 12 10	
Senji ..	0 7 0		..	..	..
Oats, berseem ..	0 2 5	} ..	5 5 4	72 4 3	
Senji-methe ..	1 3 6		..	..	..
Raya ..	0 1 13	..	4 0 0	6 9 7	
Total ..	46 0 6	..	..	2,056 4 11	

(Continued).

* Sown around sugarcane.

		Rs.	a.	p.
Brought forward		..	2,056	4 11
Part ADD THE FOLLOWING PAID IN KIND—				
I. A.				
1. <i>Harvesting—</i>				
			Rs.	a. p.
Cotton,	2 mds. 10½ srs. @ Rs. 3/13/6 per maund	8	11	2
Shakkar,	1 ,, 8 ,, @ Rs. 4/7/1 ,,	5	5	4
Maize,	8 bundles @ Rs. -/3/- per bundle	1	8	0
Wheat,	52 ,, @ Rs. -/7/- ,,	22	12	0

				38 4 6
2. <i>Winnowing—</i>				
For detail see Analysis of Expenditure Statement—				16 2 9
3. <i>Kamins—</i>				
Maize,	24 bundles @ Rs. -/3/- per bundle	..	4	8 0
Wheat,	28 ,, @ Rs. -/7/- ,,	..	12	4 0
Cotton,	20 seers @ Rs. 3/13/6 per maund	..	1	14 9

				18 10 9
4. <i>Kept for seed—</i>				
Sugarcane,	10 marlas @ Re. 1/- per marla	..	10	0 0
Senji,	10 seers @ Rs. 4/- per maund	..	1	0 0
Methe,	10 .. @ Rs. 4/- ,,	..	1	0 0

				12 0 0
Gross Income				2,141 6 11

ANALYSIS OF EXPENDITURE.

			Rs. a. p.	Rs. a. p.	Part I. A.
1. Land Revenue	..	..	..	127	9 3
2. Labour—					
(a). Permanent—					
Two labourers @ Rs. 100/- each	..		200	0	0
Clothes to one of them	..		9	0	0
Cash paid to other for clothes	..		10	0	0
Food, equivalent to—					
Wheat, 12 maunds @ Rs. 1/12/- per maund.			21	0	0
Maize, 12 maunds @ Rs. 1/1/9 per maund.			13	5	0
(b). Shoemaker—					
Maize, 2 maunds @ Rs. 1/1/9 per maund			2	3	6
Wheat, 32 seers @ Rs. 1/6/-	..		1	1	7
Gur, 8 seers @ Rs. 3/13/6	..		0	12	4
Maize, 2 bundles @ Rs. -/3/- per bundle			0	6	0
Wheat, 4 " @ Rs. -/7/-	..		1	12	0
Green fodder, 2 bundles @ Rs. -/3/-	..		0	6	0
Meals	..	..	4	11	0
				264	9 5
3. Upkeep of Bullocks—					
Previous year's <i>bhusa</i> , 375 mds. @ Rs. -/10/- per maund	..		234	6	0
<i>Bhusa</i> got from <i>batai</i> share, 60 mds. @ Rs. -/10/- per maund	..		37	8	0
Mash <i>bhusa</i>	..	..	3	0	0
Green fodders and maize stalks	..		735	1	7
		Total fodders	1,009	15	7
Stock on farm—					
Seven bullocks worth Rs. 850/-					
One bullock worth Rs. 50/- died in middle of August.					
One bullock purchased for Rs. 50/- at the end of September.					
One young bullock worth Rs. 150/- transferred to bullock account in the beginning of September and three others together worth Rs. 180/- in the beginning of May.					
Other adult animals, $7\frac{1}{12}$					
Bullocks' share of fodders—111/196ths.	..		571	15	7
Concentrates fed—					
Wheat-gram, 145 mds. 30 seers	..		165	11	6
Salt	..	..	2	0	0
Carried over			739	11	1
				392	2 8

Part I.A.		Rs. a. p.	Rs. a. p.
	Brought forward	739 11 1	392 2 8
	Shoeing the bullocks	9 0 0	
	Interest and depreciation at 20 per cent on—		
	Rs. 850/-	170 0 0	
	Rs. 50/- for 9 months	7 8 0	
	Rs. 150/- „ 10 „	25 0 0	
	Rs. 180/- „ 2 „	6 0 0	
	One bullock died	50 0 0	
		1,007 3 1	
4. Persian Wheels—			
	Depreciation at—		
	8½ % on Rs. 57/-, chain	4 12 0	
	16½ % on Rs. 24/-, „	4 0 0	
	25 % on Rs. 7/-, „	1 12 0	
	20 % on Rs. 4/-, „	0 12 10	
	6½ % on Rs. 95/-, other parts	6 5 4	
	10 % on Rs. 40/-, „	4 0 0	
	11½ % on Rs. 13/-, „	1 7 1	
	10 % on Rs. 6/-, „	0 9 7	
	Interest at 8% on Rs. 246/-	19 10 11	
	Paid to <i>kamins</i> —		
	Maize, 32 seers @ Rs. 1/1/9 per maund	0 13 2	
	Wheat, 32 „ @ Rs. 1/6/- „	1 1 7	
	Oil for lubrication	5 0 0	
		50 4 6	
5. Implements—			
	Interest and depreciation at—		
	20 % on Rs. 70/-, cart	14 0 0	
	28 % on Rs. 30/-, chaff-cutter	8 6 5	
	18 % on Rs. 34/-, ploughs	6 1 11	
	18 % on Rs. 95/-, cane-crushing mill	17 1 7	
	Spades, sickles, <i>khurpas</i> , oil	6 0 0	
		51 9 11	
6. Seeds—			
	Cotton	1 0 0	
	Sugarcane	60 15 2	
	Maize	1 8 0	
	<i>Chari, guara</i>	28 0 0	
	<i>San</i>	0 4 0	
	<i>Mash</i>	0 4 0	
	Wheat	25 0 0	
		116 15 2	
	Carried over	1,501 4 2	

			Rs.	a.	p.	Rs.	a.	p.	Part I.A.	
	Brought forward	..	116	15	2	1,501	4	2		
Gram	..	..	6	4	0				
<i>Senji-methe</i>	..	..	7	0	0				
<i>Shaftal</i>	..	..	1	0	0				
<i>Berseem</i>	..	..	2	0	0				
Oats	..	..	1	0	0				
<i>Raju</i>	..	..	0	2	0				
			<hr/>				134	5	2	
7. <i>Harvesting</i> —										
Cotton, 2 mds. 10½ seers @ Rs. 3/13/6 per maund	..	..	8	11	2				
<i>Shakkar</i> for <i>jhoka</i> , 1 md. 8 seers @ Rs. 4/7/- per maund	..	..	5	5	4				
Maize, 8 bundles @ Rs. -/3/- per bundle	..	..	1	8	0				
Wheat, 52 ,, @ Rs. -/7/- ,,	..	..	22	12	0				
Cost of entertaining 25 men invited for harvesting wheat	..	..	10	0	0				
			<hr/>				48	4	6	
8. <i>Winnowing</i> —										
Maize, 1 md. 22 srs. @ Rs. 1/1/9 per maund			1	11	6					
Wheat, 6 mds. 31 ,, @ Rs. 1/6/- ,,			9	5	1					
Wheat, 3 ,, 17 ,, @ Rs. 1/8/- ,,			5	2	2					
			<hr/>				16	2	9	
9. <i>Kamins</i> (Carpenter and Blacksmith)--										
Maize, 4 mds. 32 srs. @ Rs. 1/1/9 per maund			5	5	2					
Wheat, 4 ,, 32 ,, @ Rs. 1/6/- ,,			6	9	7					
<i>Gur</i> , 0 ,, 32 ,, @ Rs. 3/13/6 ,,			3	1	2					
Cotton, 0 ,, 20 ,, @ Rs. 3/13/6 ,,			1	14	9					
Maize, 10 bundles @ Rs. -/3/- per bundle			1	14	0					
Wheat, 11 ,, @ Rs. -/7/- ,,			4	13	0					
Green fodder, 4 bundles @ Rs. -/3/- ,,			0	12	0					
			<hr/>				24	5	8	
<i>Total Expenditure</i>		..	<hr/>				1,724	6	3	
			<hr/>							

EXPENDITURE.

Part
I. A.

	Total.			Per Acre.		
	Rs.	a.	p.	Rs.	a.	p.
Land Revenue	127	9	3	3	3	8
Labour	264	9	5	6	11	3
Upkeep of Bullocks	1,007	3	1	25	8	3
Persian Wheels	50	4	6	1	4	5
Implements	51	9	11	1	4	11
Seed	134	5	2	3	6	5
Harvesting	48	4	6	1	3	7
Winnowing	16	2	9	0	6	7
<i>Kamins</i>	24	5	8	0	9	10
<i>Total</i>	1,724	6	3	43	10	11

SUMMARY.

			A. K. M.		
Area held	39	3 16
„ cropped	46	0 6
Intensity of cropping	116.9	per cent.

			Total.			Per acre.		
			Rs. a. p.			Rs. a. p.		
Gross income .. .. .	..	..	2,141	6	11	54	4	0
Expenditure .. .. .	..	..	1,724	6	3	43	10	11
Net income .. .. .	..	..	417	0	8	10	9	1

HOLDING B.

The previous three years' accounts of this holding appeared under Holding C. in Part VIII. of 1927-28 and Holding B. in Part I. of 1928-29 and 1929-30 publications, respectively.* During the year under report the tenant cultivated an area of 10 acres, 3 kanals and 11 marlas, of which 3 acres, 2 marlas were *chahi* and the remainder *barani*. Only 2 kanals, 13 marlas of *chahi* land had been taken on a cash rent of Rs. 15/12/0; the whole of the remaining area was cultivated on half *batai* conditions. The intensity of cropping was 130.5 per cent. against 128.2 last year. Part
I. B.

The time spent on cultivation averaged 48.6 days of one man and 25.9 days of a pair of bullocks per acre against 35.3 and 17.6 days in 1929-30, 38.0 and 19.0 in 1928-29, and 49.6 and 26.1 in 1927-28. Of this, the time required for well-irrigation alone averaged 16.1 days of one man and 8.1 days of a pair of bullocks per acre, and this is approximately double of what it was in the previous year.

The tenant, who is an old man, was helped by his three sons, one of whom also prepared meals for them. From the beginning of March, however, the tenant entered into an agreement with another landlord, for whom he undertook to cultivate 12 kanals (local) for planting a vegetable garden, and he was not to pay any share from the vegetables or fodders grown there; for this work he took one bullock from his sons. The occasional work done by his sons in this area has been considered as "work done outside" and the cost of maintenance of the bullock excluded from the cost of upkeep of bullocks charged against the income from his original holding. The upkeep of bullocks is Rs. 9/10/4 per acre as against Rs. 14/6/4 last year. Thrice the tenant took his cart full of *senji* fodder to Hoshiarpur and could sell on the average a cartful for Rs. 6/-; once to Phagwara to bring sugarcane seed and on another occasion to bring wood for constructing a house, from a village 18 miles away. Considerable time was also spent in levelling a pond and on making the house. The time spent on all such jobs has been included in "other work," and is, therefore, very high, *i.e.*, 135.8 days of one man and 22.1 days of a pair of bullocks.

Cotton picking was done by one of the sons of the cultivator with the help of a woman. The latter was paid 1/11th share of the cotton picked by her and this was given from the tenant's share entirely. This accounts for the slight difference in the expenses on harvesting borne by the landlord and the tenant, which are Rs. 0/5/5 and Rs. 0/6/11 per acre, respectively.

* *Ibid.* pages 102-06, 48-54 and 32-39, respectively.

Part
I. B. Half the area of sugarcane was under *desi* and half under *Coimbatore 223* variety. Half the cost of seed of the latter was also borne by the landlord.

As already pointed out the tenant had taken some land on a cash rent of Rs. 15/12/0, from which he obtained an income of Rs. 22/10/8 only. This is also responsible for the difference in the gross incomes of the landlord and the tenant. The gross income of the holding was Rs. 35/0/9 per acre against Rs. 50/6/6 ; the expenditure Rs. 18/9/6 per acre against Rs. 25/4/6, and the net income, therefore, Rs. 16/7/3 per acre as against Rs. 24/8/0 in 1929-30. The total net income of the tenant was only Rs. 37/5/7 or Rs. 3/9/3 per acre of holding and this represents the total reward for the labours of all the four members of the family working on the holding.

Labour Sheet showing the number of Days' Work performed by Men and Bullocks throughout the Year.

Part
I. B.

	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	Total days.	Days per acre.
Farm cultivation ..	48.4	46.1	45.7	47.2	55.3	57.2	32.1	30.1	10.9	28.0	62.4	44.5	507.9	48.6
Other work ..	1.4	12.5	16.1	1.3	0.8	1.0	3.4	0.3	7.7	9.5	81.0	0.8	135.8	13.0
Work done outside ..	..	..	0.8	0.7	..	..	..	..	26.4	1.5	1.5	..	30.9	3.0
Bullock cultivation ..	30.8	20.9	29.3	35.4	42.9	32.6	14.1	12.3	3.9	15.2	12.7	20.8	270.9	25.9
Bullocks on other work ..	1.4	0.3	1.1	1.3	..	0.5	0.8	0.3	3.8	6.0	5.8	0.8	22.1	2.1
Bullocks working outside ..	..	..	0.8	0.7	..	..	..	..	11.8	0.8	0.7	..	14.8	1.4
*Well-irrigation ..	13.4	4.0	19.3	13.6	12.9	23.1	20.0	18.6	3.8	7.5	22.5	9.5	168.2	16.1
(Bullock ,,	6.7	2.0	9.7	6.8	6.4	11.6	10.0	9.3	1.9	3.7	11.3	4.7	84.1	8.1

* These items have been included in ' Farm ' and ' Bullock ' Cultivations above.

INCOME.

A. K. M.
Area held-10 3 11

Part
I. B.

Crop.	Area.	Outturn.	Rate per maund.	Value.
	A. K. M.	Mds. Srs.	Rs. a. p.	Rs. a. p.
Sugarcane (<i>shakkar</i>) ..	0 1 18	5 1	5 0 0	25 8 0
.. (<i>gur</i>) ..		0 20	4 0 0	2 0 0
Cotton ..	0 3 16	5 0	4 0 0	20 0 0
Maize ..	1 1 13	8 0	1 0 0	8 0 0
.. stalks ..	..	..	..	1 0 0
<i>San</i> ..	0 0 8	0 25	6 10 8	4 2 8
Sweet potato } Rent	0 2 7	12 0	1 0 0	12 0 0
.. fodder } Rs. 15/12/-	..	..	..	1 0 0
Chillies ..	0 0 6	0 25	1 10 8	1 0 8
<i>Moth</i> ..	1 4 3	4 16	1 10 8	7 5 4
<i>Guara</i> ..		0 16	1 4 0	0 8 0
<i>Sesamum</i> ..	..	0 12	4 0 0	1 3 2
<i>Moth bhusa</i> ..	..	9 0	0 8 0	4 8 0
<i>Massar</i> ..	0 0 19	2 10	1 10 8	3 12 0
Linseed ..		0 32	5 0 0	4 0 0
<i>Massar bhusa</i> ..	..	5 10	..	2 0 0
Barley ..	0 0 15	1 24	0 10 8	1 1 1
.. <i>bhusa</i> ..	..	3 20	..	1 0 0
<i>Saunf</i> ..	0 1 14	0 6½	6 2 0	0 15 11
Onion } Rented ..		9 0	0 8 0	4 8 0
Garlic ..	..	..	..	0 8 0
Carrot ..	..	..	..	0 9 0
Gram ..	0 5 8	6 0	1 12 0	10 8 0
.. <i>bhusa</i> ..	..	..	..	0 4 0
Wheat ..	4 7 9	43 20	1 4 0	54 6 0
.. <i>bhusa</i> ..	..	110 0	0 5 4	36 10 8
Wheat-gram ..	1 4 3	25 8	1 8 0	37 12 10
.. <i>bhusa</i> ..	..	43 0	0 5 4	14 5 4
<i>Guara</i> ..	0 3 16	..	Per kanal. { 2 8 0 3 0 0 7 5 4 9 5 4 5 5 4 5 8 0	9 8 0
<i>Chari</i> ..	0 5 8	..		16 3 2
<i>Senji</i> (sold) ..	0 1 10	..		11 0 0
.. (" by tenant) ..	0 0 15	..		7 0 0
.. (" " landlord) ..	0 0 15	..		4 0 0
.. (fed) ..	0 5 18	..	5 8 0	32 7 2
Total ..	13 5 1	..	..	340 11 0

(Continued).

Brought forward .. 340 11 0

ADD THE FOLLOWING PAID IN KIND -

1. *Harvesting*—

For details see Analysis of Expenditure Statement— .. 8 1 4

2. *Winnowing*—

For details see Analysis of Expenditure Statement— .. 1 6 7

3. *Kamins*—

	Rs.	a.	p.
<i>Shakkar</i> , 6 seers @ Rs. 5/- per maund ..	0	12	0
Cotton, 4 ,, @ Rs. 4/- ,, ..	0	6	5
Cane-juice, equivalent to 4 seers <i>gur</i> @ Rs. 4/- per maund ..	0	6	5
<i>Moth</i> , 13 seers @ Rs. 1/10/8 per maund ..	0	8	8
,, <i>bhusa</i> , 60 seers @ Rs. -/8/- ,, ..	0	12	0
Wheat, 8 seers @ Rs. 1/4/- ,, ..	0	4	0
Maize, 14 bundles @ Rs. -/3/- per bundle ..	2	10	0
Wheat, 21 ,, @ Rs. -/5/6 ,, ..	7	3	6
			12 15 0

4. *Kept for seed*—

Maize, 6 seers @ Rs. 1/- per maund ..	0	2	5
<i>Senji</i> , 16 ,, @ Rs. 1/4/- ,, ..	0	8	0
			0 10 5

5. *Consumed in the household*—

Cane-juice, 3 maunds equivalent to 22½ seers <i>gur</i> @ Rs. 4/- per maund ..		2	4	0
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<i>Gross Income</i> ..				<u>366 0 4</u>
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ANALYSIS OF EXPENDITURE.

Part I. B.				Rs. a. p.	Rs. a. p.
1. Land Revenue	24 2 9
2. Upkeep of Bullocks—					
Last year's <i>bhusa</i> , 84½ maunds.					
<i>Bhusa</i> given on loan, 9½ maunds.					
,, actually consumed, 75 maunds @					
	Rs. -/6/- per maund	..	..	28 2 0	
	<i>Moth</i> and <i>massar bhusa</i>	..	..	3 4 0	
	Green grass, 62 bundles @ Rs. -/2/- per bundle	..	..	7 12 0	
	Cane-tops	..	..	1 0 0	
	Green fodder and maize stalks	..	..	40 9 2	
	Total fodders	..	..	80 11 2	
Stock on farm—					
Two bullocks worth Rs. 73/-					
One bullock valued at Rs. 35/- sold for Rs. 30/- in the beginning of October.					
One bullock worth Rs. 20/- excluded from, and another young bullock worth Rs. 35/- transferred to bullock account in the beginning of March.					
One cow.					
	Bullocks' share of fodders—5/8ths	..	..	50 7 0	
Concentrates fed—					
	Wheat, 6 mds. 13½ srs. @ Rs. 2/14/- per maund	..	..	18 3 6	
	,, flour, 9 seers @ Rs 3/2/-	..	..	0 11 3	
	Salt	..	..	4 8 0	
	Oil, <i>gur</i> and spices	..	..	3 2 6	
	Shoeing of bullocks	..	..	2 1 0	
Interest and depreciation at 20 per cent. on—					
	Rs. 73/-	..	..	14 9 7	
	Rs. 20/- for 9 months	..	..	3 0 0	
	Rs. 35/- for 7 ,,	..	..	4 1 4	
				100 12 2	
3. Persian Wheel—					
His <i>chahi</i> land is equivalent to 11/28th share in one Persian Wheel and 11/84th in another. Interest at 8 per cent. on Rs. 66/-					
				5 4 6	
Depreciation at—					
	25 % on Rs. 22/-	..	..	5 8 0	
	10 % on Rs. 44/-	..	..	4 6 5	
	Share in repairs	..	..	1 10 8	
				16 13 7	
	Carried forward	..	..	141 12 6	

				Rs. a. p.	Rs. a. p. Part
Brought forward				..	141 12 6 I. B.
4. Implements—					
(a). Tenant—					
Interest and depreciation at 20 % on					
Rs. 40/- , cart	..	..	..	8 0 0	
Wood for repairs	..	..	..	0 4 0	
Tools purchased	..	..	..	1 2 0	
(b). Landlord	..	..	..	0 5 0	
				<hr/>	9 11 0
5. Seed—					
Sugarcane, <i>desi</i>	..	..	..	1 11 0	
,, , <i>Coimbatore 223</i> variety,					
(half the cost borne by landlord)				3 0 0	
Cotton	..	..	..	0 4 0	
Maize	..	..	..	0 11 0	
<i>San</i>	..	..	..	0 1 6	
Chillies	..	..	..	0 0 6	
<i>Moth</i>	..	..	..	0 8 0	
<i>Guara</i>	..	..	..	1 0 0	
Sesamum	..	..	..	0 2 0	
<i>Mussar</i>	..	..	..	0 1 0	
Linseed	..	..	..	0 1 6	
Barley	..	..	..	0 1 9	
<i>Saunf</i>	..	..	..	0 2 0	
Onion	..	..	..	0 8 0	
Garlic	..	..	..	0 8 0	
Carrot	..	..	..	0 4 0	
Gram	..	..	..	0 8 0	
Wheat	..	..	..	9 1 10	
<i>Chari</i>	..	..	..	1 3 0	
<i>Senji</i>	..	..	..	1 5 7	
				<hr/>	21 2 8
6. Harvesting—					
Cotton, 10 seers @ Rs. 4/- per maund..				1 0 0	
<i>Gur</i> to <i>jhoka</i> , 2 seers @ Rs. 4/- „ ..				0 3 2	
<i>Moth</i> , 1½ seers @ Rs. 1/10/8 „ ..				0 1 0	
„ <i>bhusa</i> , 36 seers @ Rs. -/8/- „ ..				0 7 2	
Wheat, 9 bundles @ Rs. -/11/- per bundle..				6 3 0	
Maize, 1 „ @ Rs. -/3/- „ ..				0 3 0	
				<hr/>	8 1 4
Carried forward				..	180 11 6

		Rs. a. p.	Rs. a. p.
	Brought forward	..	180 11 6
Part I. B.	7. <i>Winnowing</i> —		
	Wheat, 19½ seers @ Rs. 1/4/- per maund	0 9 9	
	„ <i>bhusa</i> , 96 seers @ Rs. -/5/4 „	0 12 10	
		<hr/>	1 6 7
	8. <i>Kamins</i> (Carpenter and Blacksmith, -		
	<i>Shakkar</i> , 4 seers @ Rs. 5/- per maund	0 8 0	
	Cotton, 4 „ @ Rs. 4/- „	0 6 5	
	Cane-juice, 2 „ (<i>gur</i>) @ Rs. 4/- „	0 3 2	
	<i>Moth</i> , 10 „ @ Rs. 1/10/8 „	0 6 8	
	„ <i>bhusa</i> , 60 seers @ Rs. -/8/- „	0 12 0	
	Wheat, 8 seers @ Rs. 1/4/- „	0 4 0	
	Maize, 7 bundles @ Rs. -/3/- per bundle	1 5 0	
	Wheat, 14 „ @ Rs. -/5/6 „	4 13 0	
	Green fodder, 6 seers @ Rs. -/3/- „	1 2 0	
		<hr/>	9 12 3
	9. <i>Miscellaneous</i> —		
	Casual labour	1 2 0	
	Soap for lubricating cart	0 4 0	
	Hire for cane-crushing mill @ Rs. -/2/6 per maund of <i>gur</i>	0 15 0	
		<hr/>	2 5 0
	<i>Total Expenditure</i>	..	<hr/> 194 3 4 <hr/>

EXPENDITURE.

Part
I. B.

	TOTAL.		PER ACRE.		
	Landlord.	Tenant.	Landlord.	Tenant.	Total.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Land Revenue ..	24 2 9	..	2 5 0	..	2 5 0
Upkeep of Bullocks ..	..	100 12 2	..	9 10 4	9 10 4
Persian Wheel ..	16 13 7	..	1 9 10	..	1 9 10
Implements ..	0 5 0	9 6 0	0 0 6	0 14 4	0 14 10
Seed ..	1 8 0	19 10 8	0 2 3	1 14 2	2 0 5
Harvesting ..	3 8 8	4 8 8	0 5 5	0 6 11	0 12 4
Winnowing ..	0 11 4	0 11 3	0 1 1	0 1 1	0 2 2
<i>Kamins</i> ..	4 11 1	4 14 2	0 7 6	0 7 6	0 15 0
Miscellaneous ..	..	2 5 0	..	0 3 7	0 3 7
<i>Total</i> ..	<i>51 15 5</i>	<i>142 3 11</i>	<i>4 15 7</i>	<i>13 9 11</i>	<i>18 9 6</i>

SUMMARY.

				A. K. M.
Area held ..	..	..	..	10 3 11
Area cropped ..	..	..	..	13 5 1
Intensity of cropping ..	..	..	..	130.5 per cent.

	TOTAL.			PER ACRE.		
	Gross income.	Expenditure.	Net income.	Gross income.	Expenditure.	Net income.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Landlord ..	186 6 10	51 15 5	134 7 5	17 13 7	4 15 7	12 14 0
Tenant ..	179 9 6	142 3 11	37 5 7	17 3 2	13 9 11	3 9 3
<i>Total</i> ..	<i>366 0 4</i>	<i>194 3 4</i>	<i>171 13 0</i>	<i>35 0 9</i>	<i>18 9 6</i>	<i>16 7 3</i>

HOLDING C.

Part
I. C.

The *Farm Accounts* for 1928-29 and 1929-30 contain the last two years' accounts of this farm under Holding C. in Part I.* During the year under report the cultivator farmed an area of 14 *acres*, 3 *kanals* and 14 *marlas*, of which 7 *acres*, 5 *marlas* were *chahi* and the remainder *barani*. A well, in which the cultivator had one-fourth share, was sunk deeper and his share of the expenses amounted to Rs. 19/-. The repair of Persian wheels cost him Rs. 10/-. The total expenses on well and Persian wheels, including interest and depreciation on their value, averaged Rs. 3/10/9 per acre of holding. The intensity of cropping was 129·6 per cent. against 114·8 in 1929-30 and 129·1 in 1928-29.

There were two members of the family on farm work and one labourer was employed for three months at Rs. 5/- per mensem plus meals and clothes. A sweeper rendered occasional help for which he received 1 maund 24 seers of wheat. The cultivation work was 50·4 days of one man and 22·1 days of a pair of bullocks per acre against 50·2 and 24·0 days, respectively, last year. Of this, well-irrigation alone required 24·7 days of one man and 12·3 days of a pair of bullocks per acre of holding.

There were four bullocks and one camel as draft animals and their upkeep cost Rs. 29/6/1 per acre as against Rs. 32/4/7 the previous year.

In addition to the carpenter and the blacksmith, a *rakha* who is the watchman of village crops, has also been charged to the farm. They received the following, and these dues amounted to Rs. 0/10/9 per acre against Rs. 1/0/3 last year.

			<i>Carpenter.</i>	<i>Blacksmith.</i>	<i>Watchman.</i>
			<i>Seers.</i>	<i>Seers.</i>	<i>Seers.</i>
Maize	..	..	26	18	8
Cotton	..	..	2	2	..
<i>Gur</i>	..	..	2½	2½	..
Wheat	..	..	24	20	8
			<i>Bundles</i>	<i>Bundles</i>	<i>Bundles.</i>
Maize	..	..	2	2	..
Wheat	..	..	2	2	..
Green fodder	..	..	1	1	..

In addition to the farmyard manure from his own animals, the cultivator purchased eight cart-loads for Rs. 8/4/0 and applied it to his land.

The gross income from the holding was Rs. 37/13/5 per acre against Rs. 49/8/4 in 1929-30 and Rs. 75/6/7 in 1928-29. The expenses on cultivation averaged Rs. 46/4/8 per acre against Rs. 58/7/1 last year, when he suffered a loss of Rs. 151/15/2. The loss this year was Rs. 122/4/0 ; an average of Rs. 8/7/3 per acre.

**Ibid.* pages 55-61 and 40-46, respectively.

Labour Sheet showing the number of Days' Work performed by Men and Bullocks throughout the Year.

Part
I. C.

	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total days.	Days per acre.
Farm cultivation	54.4	65.4	60.0	79.3	61.4	59.4	44.3	31.8	46.0	108.8	89.0	42.3	742.1	50.4
Other work	20.9	2.9	3.0	6.6	12.0	3.1	2.0	1.1	14.0	..	5.5	2.8	73.9	5.1
Bullock cultivation	19.7	25.3	33.2	37.9	29.9	23.9	21.8	14.3	20.7	30.9	43.6	18.7	319.9	22.1
Bullocks on other work	3.1	0.4	2.0	5.1	5.1	2.6	2.0	1.1	5.5	..	1.8	2.1	30.8	2.1
Well-irrigation	4.1	31.8	28.5	47.8	31.0	41.8	21.6	25.5	40.5	30.5	30.0	24.8	357.9	24.7
Manual labour .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bullock	1.4	16.0	14.3	22.5	15.5	20.9	11.4	12.8	20.3	15.6	15.0	12.4	178.1	12.3

*These items have been included in 'Farm' and 'Bullock' Cultivations above.

INCOME.

A. K. M.
Area held—14 3 14

Part
I. C.

Crop.	Area.	Outturn.	Rate per maund			Value.		
			A. K. M.	Mds. Srs.	Rs. a. p.	Rs. a. p.		
Sugarcane (<i>gur</i>)	0 3 16	7 16	3 11 6	27 8 4				
Cotton	0 3 8	3 24	3 5 4	12 0 0				
Maize	1 4 14	25 24	1 4 0	32 0 0				
„ stalks .. ..	..	..	..	16 0 0	
<i>San</i>	0 0 8	0 12	10 0 0	3 0 0				
Tobacco	0 1 3	0 32	2 8 0	2 0 0				
Chillies (green)	0 3 1	6 0	2 0 0	12 0 0				
Potato	0 0 9	2 8	2 8 0	5 8 0				
<i>Saunf</i>	0 0 8	0 8	5 0 0	1 0 0				
Garlic	0 0 2	0 10	1 10 8	0 6 8				
Wheat	4 0 9	90 32	1 6 10	129 9 3				
„ <i>bhusa</i> .. ..	..	120 0	0 6 8	50 0 0			
<i>Taramira</i>	1 4 10	1 8	3 0 0	3 9 7				
Gram-barley	0 7 12	2 0	1 10 8	3 5 4				
„ <i>bhusa</i> .. ..	..	2 16	0 6 8	1 0 0			
Maize (fodder)	1 0 5	..	5 5 4	41 0 0				
<i>Chari</i>	0 1 18	..	4 0 0	7 9 7				
„	0 3 8	..	1 4 0	4 4 0				
<i>Chari, moth</i>	3 7 15	..	1 10 0	51 9 6				
<i>Guara</i>	0 7 13	..	1 0 0	7 10 5				
<i>Senji-methe</i>	1 4 5	..	5 5 4	65 5 4				
„	0 3 8	..	4 0 0	13 9 7				
„	0 3 8	..	2 10 8	9 1 1				
<i>Total</i>	18 6 0	..	..	502 0 8		

(Continued).

	Rs. a. p.	Rs. a. p	Part L C.
Brought forward	..	502	0 8
ADD THE FOLLOWING PAID IN KIND—			
1. Harvesting—			
Maize, 2 bundles @ Rs. -/8/- per bundle ..	1 0 0		
Wheat, 2 ,, @ Rs. -/12/6 ,, ..	1 9 0		
Gur to <i>jhoka</i> , 3 seers @ Rs. 3/10/9 per maund..	0 4 5		
		<hr/>	2 13 5
2. Kamins—			
Maize, 2 mds. 14 srs. @ Rs. 1/4/- per maund	2 15 0		
Cotton, 0 ,, 4 ,, @ Rs. 3/5/4 ,, ..	0 5 4		
Gur, 0 ,, 5 ,, @ Rs. 3/11/6 ,, ..	0 7 5		
Wheat, 3 ,, 26 ,, @ Rs. 1/6/10 ,, ..	5 3 4		
Maize, 10 bundles @ Rs. -/8/- per bundle ..	5 0 0		
Wheat, 12 ,, @ Rs. -/12/6 ,, ..	9 6 0		
		<hr/>	23 5 1
3. Kept for seed—			
Sugarcane, 8 <i>marlas</i> @ Rs. 1/9/- per <i>marla</i> ..	12 8 0		
Maize, 3 maunds @ Rs. 1/4/- per maund ..	3 12 0		
<i>Senji</i> , 16 seers @ Rs. 4/- ,, ..	1 9 7		
<i>Methe</i> , 12 ,, @ Rs. 4/- ,, ..	1 3 2		
		<hr/>	19 0 9
Gross Income	..	<hr/> <hr/>	547 3 11 <hr/> <hr/>

ANALYSIS OF EXPENDITURE.

Part			Rs. a. p.	Rs. a. p.
I. C.	1. Land Revenue	.. .. .	..	42 3 9
	2. Labour—			
	One labourer for 3 months at Rs. 5/- per mensem	.. .. .	15 0 0	
	Clothes	.. .. .	5 0 0	
	Meals, equivalent to 3 maunds wheat @ Rs. 2/- per maund..	.. .. .	6 0 0	
	To a <i>chuhra</i> for occasional help, 64 seers wheat @ Rs. 1/6/10	.. .. .	2 4 6	
			—————	28 4 6
	3. Upkeep of Bullocks—			
	Previous year's <i>bhusa</i> , 270 maunds @ Rs. -/7/3 per maund	.. .. .	122 5 6	
	Green fodder	.. .. .	203 1 6	
	„ purchased	.. .. .	1 4 0	
	Gram <i>bhusa</i>	.. .. .	3 0 0	
	Maize stalks	.. .. .	16 0 0	
			—————	
	Total fodders	.. .. .	345 11 0	
	Stock on farm—			
	Four bullocks and one camel together worth Rs. 815/-			
	Buffaloes, 3			
	Bullocks' share of fodder—2/3rds	.. .. .	230 7 4	
	Concentrates—			
	Wheat, 2 maunds 36 seers	.. .. .	6 3 3	
	Gram, 4 maunds	.. .. .	6 8 0	
	Cotton seed, 2 maunds 16 seers	.. .. .	6 0 0	
	Maize, 1 maund 24 seers	.. .. .	3 3 0	
	<i>Gur</i> , 32 seers	.. .. .	3 6 0	
	Salt and spices	.. .. .	4 1 6	
	Interest and depreciation at 20 % on Rs. 815/-	.. .. .	163 0 0	
	Shoeing the bullocks	.. .. .	2 1 0	
			—————	424 14 1
	4. Well and Persian Wheels—			
	Share in repairs to well	.. .. .	19 0 0	
	„ „ Persian wheel	.. .. .	10 0 0	
	Interest @ 8 % on Rs. 95/-	.. .. .	7 9 7	
	Depreciation at—			
	25 % on Rs. 30/-, chain	.. .. .	7 8 0	
	10 % on Rs. 65/-, other parts	.. .. .	6 8 0	
	Oil for lubrication	.. .. .	2 8 0	
			—————	53 1 7
	Carried forward	.. .. .		548 7 11

	Rs. a. p.	Rs. a. p. Part
Brought forward	..	548 7 11 I. C.
5. Implements—		
Interest and depreciation at—		
20 % on Rs. 150/-, cart	30 0 0	
18 % on Rs. 16/-, improved ploughs	2 14 1	
28 % on Rs. 48/-, chaff-cutter	13 7 0	
18 % on Rs. 65/-, share in cane-crushing mill	11 11 2	
28 % on Rs. 10/-, gur boiling pan	2 12 10	
Iron for <i>khurpas</i> and sickles	0 13 6	
Axle for cart	2 0 0	
	<hr/>	63 10 7
6. Seed—		
Sugarcane	4 0 0	
Cotton	0 5 0	
Maize	1 7 3	
<i>San</i>	0 2 0	
Tobacco	0 0 6	
Chillies	1 0 0	
Potato	1 8 0	
<i>Saunf</i>	0 2 0	
Garlic	0 1 0	
Wheat	7 0 0	
Gram	1 0 0	
Barley	0 4 0	
<i>Taramira</i>	0 9 0	
<i>Chari</i>	7 9 0	
<i>Moth</i>	0 12 0	
<i>Guara</i>	1 0 0	
<i>Senj-methe</i>	5 11 9	
	<hr/>	32 7 6
7. Harvesting—		
Maize, 2 bundles @ Rs. -/8/- per bundle ..	1 0 0	
Wheat, 2 ,, @ Rs. -/12/6 ,, ..	1 9 0	
Gur to <i>jhoka</i> , 3 seers @ Rs. 3/11/6 per md.	0 4 6	
Cost of entertaining 10 men invited for harvesting wheat	4 1 0	
	<hr/>	6 14 6
Carried forward ..		<hr/> 651 8 6

			Rs. a. p.	Rs. a. p.
		Brought forward	..	651 8 6
Part	8. Kamins (Carpenter, Blacksmith and Field Watchman)—			
I. C.				
Maize,	52 seers @ Rs. 1/4/- per maund		1 10 0	
Cotton,	4 „ @ Rs. 3/5/4 „ ..		0 5 4	
Gur,	5 „ @ Rs. 3/11/6 „ ..		0 7 5	
Wheat,	52 „ @ Rs. 1/6/10 „ ..		1 13 8	
Maize,	4 bundles @ Rs. -/8/- per bundle		2 0 0	
Wheat,	4 „ @ Rs. -/12/6 „ ..		3 2 0	
Green fodder,	2 „ @ Rs. -/2/6 „ ..		0 5 0	
			<hr/>	9 11 5
9. Manure—				
	8 cart-loads of farmyard manure	..	..	8 4 0
			<hr/>	
<i>Total Expenditure</i>			..	<u>669 7 11</u>

EXPENDITURE.

Part
I. C.

	Total.			Per Acre.		
	Rs.	a.	p.	Rs.	a.	p.
Land Revenue	42	3	9	2	14	9
Labour .. .	28	4	6	1	15	3
Upkeep of Bullocks	121	14	1	29	6	1
Wells and Persian Wheels	53	1	7	3	10	9
Implements	63	10	7	4	6	5
Seed	32	7	6	2	3	11
Harvesting	6	14	6	0	7	8
<i>Kamins</i>	9	11	5	0	10	9
Manure	8	4	0	0	9	1
<i>Total</i>	669	7	11	46	4	8

SUMMARY.

	A. K. M.		
Area held	14	3	14
Area cropped	18	6	0
Intensity of cropping	129.6 per cent.		
	Total.		
	Rs.	a.	p.
Gross income	547	3	11
Expenditure	669	7	11
<i>Net loss</i>	-122	4	0
	Per acre.		
	Rs.	a.	p.
Gross income	37	13	5
Expenditure	46	4	8
<i>Net loss</i>	-8	7	3

PART II.

Accounts of two holdings under Well-

Irrigation in the Ludhiana District

during the year

1st July 1930 to 30th June 1931.

PART II.

Last year's accounts were given in Part II. of *Farm Accounts*, Part 11. 1929-30.* The income in each holding was much less than that of last year. In Holding A. the total net income was only Rs. 32/15/7 or Rs. 0/10/4 per acre, while in B. the cultivator suffered a net loss of Rs. 71/7/4 or Rs. 3/12/5 per acre of holding. The income, expenditure, intensity of cropping and working days on the two holdings are shown in the table given below :-

Farm.	Area.	Intensity of cropping.	PER ACRE.			TOTAL WORKING DAYS ON CULTIVATION.	
			Gross income.	Expenditure.	Net income.	Men.	Bullocks.
	A. K. M.	Per cent.	Rs. a. p.	Rs. a. p.	Rs. a. p.		
A. ..	51 0 0	116.2	20 5 5	19 11 1	0 10 4	19.6	6.4
B. ..	18 5 0	131.7	36 3 9	40 0 2	—3 12 5	46.5	11.0

In Holding A. a very large part of the land is *barani*, and this is responsible for lower figures of income, expenditure and number of days on cultivation as compared with B. In order to compare the financial position of the two holdings under similar conditions the labour paid in each case will have to be eliminated.

The rent paid for a part of the Holding B. should also be excluded from, and land revenue for this part included in, the expenditure. This has been done and the resulting position can be studied from the following table :—

Farm.	PER ACRE.		
	Gross income.	Expenditure.	Net income.
	Rs. a. p.	Rs. a. p.	Rs. a. p.
A. ..	20 5 5	17 5 1	3 0 1
B. ..	36 3 9	31 8 5	4 11 4

If no paid labour had been employed on Holding A. there would have been a net income of Rs. 3/0/1 per acre, while on B., if in addition to this, no rent were to be paid, the cultivator would have a net income of Rs. 4/11/4, instead of suffering a loss of Rs. 3/12/5 per acre.

HOLDING A.

Part II.A. The last two years' accounts of this farm appeared as Holding A. in Part II. of *Farm Accounts* for 1928-29 and 1929-30, respectively.* The area of the holding to which these accounts refer, was 51 acres, of which 6 acres, 3 kanals were *chahi* and the remainder *barani*. No land was taken this year on rent. The intensity of cropping was 116.2 per cent against 95.5 in 1929-30 and 106.1 in 1928-29.

Two members of the landlord's family carried on the cultivation work with the help of a *siri* labourer, who was given 1/10th share of produce, but no *bhusa* or fodder, 2½ maunds each of maize and wheat, and in addition Rs. 80/- was advanced to him free of interest. These items amounted to Rs. 79/6/11 and including Rs. 40/14/6 paid for casual labour, work out at Rs. 2/5/9 per acre against Rs. 4/14/9 last year.

There were two bullocks worth Rs. 220/- and a camel worth Rs. 190/- used as draft animals, until the camel died in the middle of March. One of the bullocks also fell ill, but recovered after about two months. At this time another bullock valued at Rs. 50/- was brought from a relative and was used for the remaining months of the year. The value of the camel had to be written off, and in addition to the concentrates, oil, *ghi*, meat and medicine were fed to the sick bullock and camel, costing the landlord Rs. 39/4/0. Consequently, the cost of upkeep of bullocks was Rs. 602/12/11, or Rs. 11/13/1 per acre against Rs. 11/12/5 in 1929-30, and Rs. 9/9/2 in 1928-29.

The *kamins* charged to the farm are a carpenter, who works also as a blacksmith, and also a shoemaker, who occasionally helps in agricultural operations. The payments to them averaged Rs. 0/5/4 per acre and are tabulated below :—

	Carpenter.			Shoemaker.		
	Mds.	Srs.	Ch.	Mds.	Srs.	Ch.
Maize	1	13	5	1	31	2
Wheat	3	4	7	2	8	14
	Bundles.			Bundles.		
Maize	2			1		
Wheat	4			2		
Green fodder	6			3		

**Ibid.* pages 67-73 and 51-57, respectively.

The time spent on cultivation work averaged 19·6 days of one man and 6·4 days of a pair of bullocks, per acre, against 16·7 and 5·5 days, respectively, last year. Out of this well-irrigation alone required 4·5 days of one man and 2·4 days of a pair per acre of holding. Part
II. A.

The gross income from the holding was Rs. 20/5/5 per acre against Rs. 31/7/6 in 1929-30 and Rs. 39/11/11 in 1928-29. The expenditure averaged Rs. 19/11/1 per acre against Rs. 25/15/3 last year. The year's working yielded, therefore, a total net income of Rs. 32/15/7 only or Rs. 0/10/4 per acre of holding against Rs. 5/8/3 in 1929-30 and Rs. 18/10/0 in 1928-29.

Labour Sheet showing the number of Days' Work performed by Men and Bullocks throughout the Year.

	July	August	September	October	November	December	January	February	March	April	May	June	Total days.	Days per acre.
Farm cultivation ..	.. 79.3	77.9	90.7	107.6	108.2	72.8	62.4	41.6	28.5	136.9	119.1	76.3	1,001.3	19.6
Other work ..	.. 1.1	5.0	6.4	2.0	23.4	9.4	5.3	0.3	44.8	17.8	..	5.3	120.8	2.4
Work done outside ..	.. ..	.. ..	.. ..	1.5	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	1.5	..
Bullock cultivation ..	.. 26.6	17.2	31.1	55.9	20.8	16.7	11.8	14.3	12.7	32.6	56.9	31.9	328.5	6.4
Bullocks on other work ..	.. 1.1	1.0	2.9	..	8.8	3.5	1.8	0.3	..	1.0	..	3.0	23.4	0.5
Bullocks working outside ..	.. ..	1.8	..	1.5	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	3.3	..
Well-irrigation..	.. ..	24.1	23.6	35.0	14.6	29.3	19.0	28.5	25.5	11.3	4.3	15.3	230.5	4.5
{ Manual labour														
{ Bullock ..	.. ..	12.3	15.6	17.5	6.0	16.3	9.8	14.3	12.7	5.6	2.1	7.6	119.8	2.4

*These items have been included in 'Farm' and 'Bullock' Cultivations above.

INCOME.

A. K. M.
Area held— 51 0 0

Part
II. A.

Crop.	Area.	Outturn.	Rate		Value.
			per maund.		
	A. K. M.	Mds. Srs. Ch	Rs. a. p.	Rs. a. p.	
Cotton	0 3 0	4 17 12	4 0 0	17 12 5	
<i>Sankukra</i>* .. ..	.. ..	0 5 5	6 0 0	0 12 9	
<i>San</i>* .. ..	.. ..	0 3 9	7 8 0	0 10 8	
Maize	2 2 0	62 8 14	1 1 2	66 12 2	
„ stalks .. ..	.. ..	6 cart-loads	..	12 0 0	
<i>Guara</i>	0 2 5	4 0 0	1 11 2	6 12 8	
Barley	0 2 5	6 26 11	1 4 0	8 5 4	
Wheat	4 1 15	80 0 0	1 8 0	120 0 0	
„ -gram	33 2 19	317 13 7	1 4 7	108 3 10	
Gram	3 6 0	12 0 0	1 9 8	19 4 0	
Barley	2 5 0	8 0 0	1 3 6	9 12 0	
<i>Bhusa</i> .. ..	.. ..	400 0 0	0 4 6	112 8 0	
<i>Guara</i>	0 4 10	..	8 0 0	36 0 0	
„	0 6 0	..	3 5 1	20 0 0	
<i>Chari</i>	0 2 5	..	12 0 0	27 0 0	
„	0 4 10	..	10 10 8	48 0 0	
„ , <i>guara, moth</i>	3 3 0	..	0 10 8	16 0 0	
<i>Bajra</i> , „ „	5 2 0	..	2 0 0	6 0 0	
<i>Senji</i>	0 3 0	..	8 0 0	18 0 0	
<i>Methe</i>	0 2 5	..	5 5 1	28 0 0	
Wheat (fed green)	0 5 5	..	2 4 0	8 0 0	
<i>Bajra</i>† .. ..	.. ..	3 22 4	..	..
<i>Total</i>	59 1 19	..	..	1,019 13 10	

*Sown around cotton. †From this no share was given to the siri labourer.

ADD THE FOLLOWING PAID IN KIND—

1. *Harvesting*—

	Rs. a. p.	
Maize, 22 bundles @ Rs. -/1/6 per bundle ..	..	2 1 0

2. *Kamins*—

Maize, 8 bundles @ Rs. -/6/- per bundle	3 0 0
Wheat-gram, 16 „ @ Rs. -/10/6 „	10 8 0
	<hr/> 13 8 0

3. *Kept for seed*—

Maize, 71 seers @ Rs. 1/1/2 per maund	1 14 6
--	----	--------

<i>Gross Income</i> ..	<hr/> <hr/> 1,037 5 4
------------------------	-----------------------

ANALYSIS OF EXPENDITURE.

Part II. A.				Rs. a. p.	Rs. a. p.
1. Land Revenue--	..	..	..	..	94 5 9
2. Labour—					
(a). One permanent labourer—					
Interest at 8 per cent. on Rs. 80/-					
advanced to him	..	..	..	6 6 5	
1/10 Cotton	..	..	..	1 12 5	
,, Maize	..	..	..	6 10 10	
,, Barley	..	..	..	0 13 4	
,, Wheat	..	..	..	12 0 0	
,, „ -gram	..	..	..	40 13 2	
,, Gram	..	..	..	1 14 10	
,, Barley	..	..	..	0 12 10	
For food—					
Maize, 2½ maunds @ Rs. 1/1/2 per maund				2 13 9	
Wheat, 2½ „ @ Rs. 2/- „				5 5 4	
(b). Casual labour	..	..	..	39 5 0	
Meals to casual labour	..	..	..	1 9 6	
				-----	120 5 5
3. Upkeep of Bullocks.—					
Previous year's <i>bhusa</i> consumed, 143 maunds					
@ Rs. -/12/- per maund	..	..	..	107 4 0	
Green fodders and maize stalks	..	..	..	241 0 0	
<i>Chari</i> , 5 cart-loads got from a relative	..	..	..	18 0 0	
Green grass, 330 bundles @ Rs. -/1/6 per					
bundle	..	..	..	30 15 0	

				397 3 0	
Stock on Farm—					
Two bullocks worth Rs. 220/-					
One camel worth Rs. 190/-, died in middle of					
March.					
One bullock worth Rs. 50/- got from a relative					
in the beginning of March.					
Buffaloes, 3.					
Bullocks' share of fodders- 5/9ths	..	..	..	220 10 7	
Concentrates—					
Gram, 49 mds. 10 srs. 4 chs.	..	..	..	90 0 6	
Oil cake, 0 „ 26 „ 11 „	..	..	..	1 3 3	
Oil, 1 „ 4 „ 7 „	..	..	..	18 12 0	

				330 10 4	214 11 2

				Carried forward	
				..	330 10 4
					214 11 2

		Rs. a. p.	Rs. a. p.
	Brought forward ..	..	981 9 7
Part II. A.	7. <i>Harvesting</i> —		
	Maize for taking out cobs, 22 bundles @ Rs. -/1/6 per bundle	2 1 0	
	Cash payments for harvesting wheat ..	3 12 0	
		<hr/>	5 13 0
	8. <i>Kamins</i> (Carpenter and Shoemaker)—		
	Maize, 3 mds. 4 srs. 7 chts. @ Rs. 1/1/2 per maund	3 5 5	
	Wheat-gram, 5 mds. 13 srs. 5 chts. @ Rs. 1/4/7 per maund	6 13 9	
	Maize, 3 bundles @ Rs. -/6/- per bundle	1 2 0	
	Wheat-gram, 6 „ @ Rs. -/10/6 „	3 15 0	
	Green fodder, 9 „ @ Rs. -/3/- „	1 11 0	
		<hr/>	16 15 2
	<i>Total Expenditure</i> ..		<hr/> 1,004 5 9 <hr/>

EXPENDITURE.

			Total.	Per Acre.	Part II.
			Rs. a. p.	Rs. a. p.	
Land Revenue	..	..	94 5 9	1 13 7	
Labour	..	..	120 5 5	2 5 9	
Upkeep of Bullocks	..	..	602 12 11	11 13 1	
Persian Wheel	..	..	53 4 4	1 0 9	
Implements	..	..	34 0 0	0 10 8	
Seed	..	..	76 13 2	1 8 1	
Harvesting	..	..	5 13 0	0 1 10	
<i>Kamins</i>	..	..	16 15 2	0 5 4	
<i>Total</i>			<i>1,004 5 9</i>	<i>19 11 1</i>	

SUMMARY.

			A. K. M.	
Area held	..	..	51 0 0	
Area cropped	..	..	59 1 19	
Intensity of cropping	..	..	116.2 per cent.	
			Total.	Per acre.
			Rs. a. p.	Rs. a. p.
Gross income	..	..	1,037 5 4	20 5 5
Expenditure	..	..	1,004 5 9	19 11 1
Net Income	..	..	32 15 7	0 10 4

HOLDING B.

Part
II. B.

Last year's accounts of this holding were published in Part II., as Holding B. in *Farm Accounts, 1929-30*.^{*} This year the total cultivated area of the holding was 18 acres, 5 kanals, of which 5 acres, 4 kanals were *chahi* and the remainder *barani*. 2 acres, 4 kanals and 16 marlas had been taken on a rent of Rs. 83/-, but in view of the extremely low prices of agricultural produce, the landlord agreed to accept Rs. 70/-. This gives Rs. 26/14/9 per acre as rent. The intensity of cropping was 131·7 per cent. against 128·7 last year.

The two members of the family working on the farm were helped by a *siri* labourer, who was given 1/5th share of *barani* and 1/6th of *chahi* grain. He was also allowed 1/6th share of *kharif* and *rabi* fodders, but no share from *bhusa*. In addition, a sum of Rs. 50/- was advanced to him without any interest for the year. The average cost of labour was Rs. 5/6/6 per acre.

The time spent on cultivation and irrigation averaged 46·5 days of one man and 14·0 days of a pair of bullocks, per acre, as against 53·4 and 18·7 days, respectively, last year. Out of this, the time spent on irrigation from the well was 10·5 days of one man and 5·3 days of a pair of bullocks per acre of holding or about half of what it was the previous year. This is equal to 35·6 days of one man and 17·9 days of a pair per acre of *chahi* area. The *chahi* area was irrigated from four wells in which the cultivator had shares ranging from 1/12th to 1/3rd. The expenses on Persian wheels averaged Rs. 2/2/4 per acre.

The cultivator had three bullocks, but one of them worth Rs. 130/- died during the year, and no other bullock was purchased in its place. The sowing of *rabi* crops was done with the help of another bullock for a fortnight; for working the Persian wheels in December, a camel was used for three days and in February a pair of bullocks for one week; these animals were all obtained from a relative. In the cost of upkeep of bullocks, the value of the dead bullock has been included, but in spite of this, owing to the low prices of concentrates and comparatively larger area cultivated by them, the cost of upkeep averaged Rs. 21/15/0 per acre as against Rs. 37/6/1 in 1929-30. As last year, the *kamins'* charges are the payments to the carpenter, who also works as a blacksmith, and the *rakha*, who is the watchman for the crops of the whole village.

The cultivator produced good crops, but low prices are responsible for the low gross income, which is about half that of the previous year, *i.e.*, Rs. 36/3/9 per acre against Rs. 72/3/9. The expenditure averaged Rs. 40/0/2 and thus the year's working resulted in a net loss of Rs. 3/12/5 per acre of holding.

^{*}*Ibid.* pages 58-65.

Labour Sheet showing the number of Days' Work performed by Men and Bullocks throughout the Year.

Part II. B.

	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total days.	Days per acre.
Farm cultivation ..	.. 68.6	92.7	64.3	93.3	83.3	66.9	65.8	34.3	45.4	132.1	86.6	32.8	866.1	46.5
Other work ..	.. 14.3	6.3	2.3	1.8	0.4	4.8	14.3	7.1	5.4	3.0	1.5	4.9	66.1	3.5
Work done outside ..	.. 3.8	..	..	1.8	..	..	..	6.3	1.0	..	..	3.3	16.2	0.9
Bullock cultivation ..	.. 33.5	24.8	36.6	46.9	16.0	14.0	5.1	18.4	17.0	14.4	21.2	12.4	260.3	14.0
Bullocks on other work ..	.. 4.1	1.9	0.8	0.8	0.4	0.9	1.1	3.5	2.6	1.0	0.5	2.9	20.5	1.1
Bullocks working outside ..	.. 1.9	3.8	..	2.6	1.0	..	..	..	..	..	..	1.5	10.8	0.6
{ Manual labour .. *Well-irrigation .. { Bullock ..	.. 0.8	15.8	31.3	33.3	12.0	28.0	10.3	19.3	26.3	1.0	2.8	15.0	195.9	10.5
	.. 0.4	7.9	15.1	17.1	6.0	14.0	5.1	10.4	13.1	0.5	1.4	7.6	98.6	5.3

*These items have been included in 'Farm' and 'Bullock' Cultivations above.

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INCOME.

A. K. M.
Area held 18 5 0

Part II. B.	Crop.	Area.			Outturn.			Rate per maund.			Value.		
		A.	K.	M.	Mds.	Sr.	Ch.	Rs.	a.	p.	Rs.	a.	p.
	Cotton	0	2	10	1	13	5	4	3	6	18	4	6
	Mash (in cotton) .. ..	..	..	..	0	4	7	3	12	0	0	6	8
	Sesamum* .. ..	..	..	..	0	11	2	5	10	0	1	9	0
	Maize	2	3	3	62	8	14	0	15	2	58	15	8
	" stalks .. ..	..	..	..	..	..	..	..	..	..	11	8	0
	Moth (barani)	3	7	13	11	4	7	1	14	0	26	7	4
	" , guara (barani)	1	0	6	1	13	5	1	8	0	2	0	0
	" , bhusa .. ..	..	..	..	46	26	11	0	6	0	17	8	0
	Bajra (in moth) .. ..	..	..	..	7	35	9	1	12	9	14	2	10
	San	0	1	5	1	0	0	6	6	10	6	6	10
	" (green manured)	1	2	17	..	..	..	..	..	..	..	..	..
	Chari	0	1	13	..	..	..	8	0	0	13	3	2
	" , bajra, mung	0	6	13	..	..	..	4	0	0	26	9	7
	" , " , "	0	1	13	..	..	..	9	0	0	14	13	7
	" , " , maize	0	2	2	..	..	..	4	12	0	9	15	7
	" , " (barani)	0	2	10	..	..	..	6	0	0	15	0	0
	Senji-methe	0	4	17	..	..	..	1	4	0	20	9	10
	Carrots	0	1	13	..	..	..	6	0	0	9	14	5
	Gram (barani)	0	2	10	..	..	..	3	0	0	7	8	0
	Wheat (chahi)	1	5	6	35	22	4	1	6	2	49	4	2
	" -gram (chahi)	2	7	6	52	0	0	1	7	3	75	9	0
	" , " (barani)	7	6	9	102	8	15	1	8	0	153	5	4
	Bhusa .. ..	..	..	..	302	0	0	0	5	2	97	8	4
	Sarson .. ..	..	..	..	0	15	5	4	8	0	1	11	7
	" (green fodder) .. ..	..	..	..	..	..	..	..	..	..	5	0	0
	Mustard (in wheat) .. ..	..	..	..	0	24	7	5	10	0	3	7	0
	Total	24	4	6	..	..	..	..	..	..	660	12	5

* Sown around cotton.

ADD THE FOLLOWING PAID IN KIND—

1. <i>Harvesting</i>		Rs.	a.	p.
	Maize, one bundle (@ Rs. -/8/- per bundle			0 8 0
2. <i>Kamins</i> --				
	Maize, 5 $\frac{3}{4}$ bundles (@ Rs. -/8/- per bundle	2	14	0
	Wheat-gram, 2 " (@ Re. 1/- "	2	0	0
	" " , 4 $\frac{1}{2}$ " @ Rs. -/12/- "	3	6	0
	Moth, 8seers 14 chataks @ Rs. 1/14/0 per maund	0	6	8
	Bajra, 4 " 7 " @ Rs. 1/12/9 "	0	3	2
	San, 2 " 11 " @ Rs. 6/6/10 "	0	6	11
				9 4 9
3. <i>Kept for seed</i>				
	Maize, 26 srs. 11 chs. @ Rs. -/15/2 per maund	0	10	1
	Melhe, 13 " 5 " @ Rs. 3/7/9 "	1	3	2
	San, 17 " 12 " @ Rs. 1/2/0 "	0	8	0
	Jowar, 62 " 4 " @ Rs. 1/4/7 "	2	0	0
				4 5 3

Gross Income .. 674 14 5

ANALYSIS OF EXPENDITURE.

	Rs. a. p.	Rs. a. p.	Part II, B.
1. Land Revenue—	38 0 9	
2. Rent—			
Paid for 2 acres, 4 kanals and 16 marlas	70 0 0	
3. Labour—			
(a). Permanent—one <i>siri</i> labourer.			
Interest at 8 per cent. on Rs. 50/- advanced to him	4 0 0	
1/5th <i>Moth</i>	5 4 8	
" " <i>guara</i>	0 6 5	
" <i>Bajra</i>	2 13 3	
" <i>Wheat-gram</i>	30 10 8	
" <i>Sarson</i>	0 5 6	
1/6th <i>Cotton</i>	3 0 5	
" <i>Mash</i> (in cotton)	0 1 1	
" <i>Sesamum</i> (sown around cotton)	0 4 2	
" <i>Maize</i>	9 13 3	
" <i>San</i>	1 1 2	
" <i>Kharif</i> and <i>rabi</i> fodders	19 9 8	
" <i>Wheat</i>	8 3 4	
" " <i>-gram</i>	12 9 6	
" <i>Mustard</i>	0 9 2	
(b). Casual labour	1 14 0	
		<hr/>	100 10 3
4. Upkeep of Bullocks—			
Previous year's <i>bhusa</i> , 181 maunds	181 0 0	
<i>Moth bhusa</i>	17 8 0	
Maize stalks	11 8 0	
Green fodders	98 0 6	
" <i>sarson</i>	5 0 0	
Grass, 21 bundles @ Rs. -/2/- per bundle	2 10 0	
		<hr/>	
		Total fodders ..	315 10 6
Stock on Farm—			
Two bullocks worth Rs. 252/-,			
One bullock worth Rs. 130/- died at end of October.			
Other adult animals, 3½.			
Bullocks' share of fodders—2/5ths	126 4 2	
Concentrates fed—			
Gram, 11 maunds 35 seers	30 14 6	
Wheat, 3 " 13 "	5 0 0	
Maize, wheat, 1 maund 13 seers	2 0 0	
Wheat flour, 11 " 28 "	22 0 0	
		<hr/>	
Carried over	186 2 8	208 11 0

		Rs. a. p.	Rs. a. p.	
Brought forward..		186 2 8	208 11 0	
Part II. B.	<i>Moth, guara</i> , 2 maunds 27 seers ..	4 0 0		
	<i>Cake</i> , 4 " 6 " ..	9 0 0		
	<i>Cotton seed</i> , 2 " 26 " ..	6 0 0		
	<i>Gur</i> , 2 " 20 " ..	12 0 0		
	<i>Salt</i> ..	3 0 0		
	<i>Alum and medicine</i> ..	3 8 0		
	Interest and depreciation at 20 per cent. on Rs. 252/- ..	50 6 5		
	Interest at 8 per cent. on Rs. 130/- for 3 months ..	3 7 6		
	Value of bullock which died ..	130 0 0		
	Shoeing of bullocks ..	2 3 0		
				409 11 7
	5. <i>Persian Wheel</i> —			
	Interest at 8 per cent. on Rs. 121/8/- ..		9 11 6	
	Depreciation at—			
25 % on Rs. 40/8/-, chain ..		10 2 0		
10 % on Rs. 81/-, other parts ..		8 1 7		
Share in repairs of Persian wheel ..		10 0 0		
Oil for lubrication ..		2 0 0		
			39 15 1	
6. <i>Implements</i> —				
Interest and depreciation at—				
20 % on Rs. 115/-, cart ..		23 0 0		
28 % on Rs. 44/-, chaff-cutter..		12 5 1		
<i>Spade and sickles</i> ..		1 6 0		
<i>Oil and grease</i> ..		0 8 0		
			37 3 1	
7. <i>Seed</i> —				
<i>Cotton</i> ..		0 3 3		
<i>Mash</i> ..		0 3 3		
<i>Sesamum</i> ..		0 1 0		
<i>Maize</i> ..		1 0 0		
<i>Moth</i> ..		3 0 0		
<i>Guara</i> ..		1 3 0		
<i>Bajra</i> ..		1 15 0		
<i>San</i> ..		0 5 0		
,, (for green manuring) ..		4 0 0		
<i>Jowar</i> ..		5 8 0		
<i>Mung</i> ..		0 6 3		
<i>Senji</i> ..		0 8 0		
<i>Methe</i> ..		0 10 0		
<i>Carrots</i> ..		0 3 0		
Carried over ..		19 1 9	695 8 9	

				Rs.	a.	p.	Rs.	a.	p.	Part
				19	1	9	695	8	9	II. B.
Brought forward										
Gram	..	..	..	10	0	0				
Wheat	..	..	..	11	0	0				
Sarson	..	..	..	1	0	0				
Mustard	..	..	..	0	1	0				
							41	2	9	
8. <i>Harvesting</i> --										
Maize, 1 bundle	..	..	..	0	8	0				
Cash	..	..	..	1	0	0				
							1	8	0	
9. <i>Kamins</i> (Carpenter and Field Watchman)--										
Maize, 1½ bundles @ Rs. -/8/- per bundle	..			0	12	0				
Wheat, 2¾ ,, @ Rs. 1/- ,,	..			2	12	0				
Green fodder, 3 bundles @ Rs. -/3/- ,,	..			0	9	0				
Moth, 6 seers 11 chhataks @ Rs. 1/14/-0 per md.	..			0	5	0				
Bajra, 4 ,, 7 ,, @ Rs. 1/12/9 ,,	..			0	3	2				
Sau, 1 ,, 12 ,, @ Rs. 6/6/10 ,,	..			0	4	6				
Maize, 51 ,, 1 ,, @ Rs. -/15/2 ,,	..			1	3	4				
Wheat, 60 ,, @ Rs. 1/6/2 per maund	..			2	1	3				
							8	2	3	
<i>Total Expenditure</i>				..			746	5	9	

EXPENDITURE.

Part
II. B.

	Total	Per Acre.
	Rs. a. p.	Rs. a. p.
Land Revenue	38 0 9	2 0 8
Rent	70 0 0	*3 12 2
Labour	100 10 3	5 6 6
Upkeep of Bullocks .. .	409 11 7	21 15 0
Persian Wheels	39 15 1	2 2 4
Implements	37 3 1	1 15 11
Seed	41 2 9	2 3 4
Harvesting	1 8 0	0 1 3
<i>Kamins</i>	8 2 3	0 7 0
<i>Total</i>	746 5 9	40 0 2

*Actually Rs. 26/14/9 per acre rented, as explained in para. 1 on page 62.

SUMMARY.

	A. K. M.
Area held	18 5 0
Area cropped	24 4 6
Intensity of cropping	131.7 per cent.
	Total. Per acre.
	Rs. a. p. Rs. a. p.
Gross income	674 14 5 36 3 9
Expenditure	746 5 9 40 0 2
<i>Net loss</i>	-71 7 4 -3 12 5

PART III.

Accounts of two holdings under Well-

Irrigation in the Hoshiarpur District

during the year

1st June 1930 to 31st May 1931.

PART III.

This is the fourth successive year of keeping farm accounts on Holding A., while on B. which is situated in a village about one mile from Tanda Urmar railway station in the Dasuya *Tahsil*, the accounts were kept for the first time. Water from the wells at both the places is lifted by Persian wheels, the water table on Holding A. being about 23 feet, while that at B., only 16 feet. Both the holdings were cultivated by intelligent farmers; B. had six months training in vernacular class of the Lyallpur Agricultural College. A. carried on work almost single handed, while B., whose crops required much labour, employed only casual labourers for those periods of the year when there was much pressure of work. The income, expenditure, intensity of cropping and the work done on the two holdings are given below :—

Part
III.

Holding.	Area held.	Intensity of cropping.	PER ACRE.			WORKING DAYS PER ACRE.	
			Gross income.	Expenditure.	Net income.	Men.	Bullocks.
	A. K. M.	Per cent.	Rs. a. p.	Rs. a. p.	Rs. a. p.		
A. ..	8 3 11	116·95	46 1 9	37 6 2	8 11 7	32·6	15·5
B. ..	11 0 17	133·3	62 8 7	45 2 0	17 6 7	43·1	18·1

One pair of bullocks was the animal labour used on each of the holdings. The cost of their upkeep was Rs. 163/11/4 on Holding A., and Rs. 188/1/5 on B., or Rs. 19/6/2 and 16/15/0 per acre, respectively. The number of days' work on cultivation on Holding B. is more than on A., particularly manual labour, mainly because of the large area of sugarcane grown on this holding. The net incomes of the two holdings are Rs. 8/11/7 and Rs. 17/6/7 per acre, respectively. In A. an area of 6 *kanals* 17 *marlas* had been taken on a rent of Rs. 36/-, land revenue for this field, calculated at Rs. 2/14/0 was paid by the owner. Holding B. was owned entirely by the cultivator. In order to reduce the two farms to a common basis it will be necessary to assume that in A. the area of 6 *kanals* 17 *marlas* was also owned by the cultivator, who paid only land revenue for it, and in B. that no labour was employed from outside

Part the whole work being done by members of the family. On this
 III. basis the following table has been prepared:—

Holding.	PER ACRE.		
	Gross income.	Expendi- ture.	Net income.
	Rs. a. p.	Rs. a. p.	Rs. a. p.
A. 	46 1 9	33 7 5	12 10 4
B. 	62 8 7	38 7 7	24 1 0

HOLDING A.

The last three years' accounts of this holding were published as Holding A. in Part VIII. of 1927-28, and Part III. of 1928-29 and 1929-30, respectively.* Part
III.
A.

The total area of the holding, cultivated, as well as that lying waste near the *cho*, was 12 *acres*, 1 *kanal* and 18 *marlas*. In previous years the cultivator grew crops like *bajra* in a field 6 *kanals*, 1 *marla* in area, which he was cultivating free with land he had taken on a mortgage, but these crops used to be too poor to be worth the trouble of sowing. This area also he left out of cultivation and allowed grass and *shisham* trees to grow there; it, therefore, formed part of the area lying waste near the *cho* whose total area was, thus, 3 *acres*, 6 *kanals* and 7 *marlas*; as in previous years only green grass was cheeled from this area and fed to cattle. This is estimated at 125 bundles worth Rs. 25/-. 6 *kanals*, 17 *marlas* were taken at a rent of Rs. 36/-. The calculation has again been done on two bases, *i.e.*, including *chos* area and excluding it. Of the total cultivated area of 8 *acres*, 3 *kanals* and 11 *marlas*, 5 *kanals*, 11 *marlas* were *chahi* and the remainder *barani*. Including *chos* area and considering grass as equivalent to one crop, the intensity of cropping works out at 111·7 per cent. against 110·7 last year. If this is left out of account the intensity of cropping is 116·95 per cent. against 114·3 last year.

This year the cultivator carried on cultivation work almost single-handed, as he put his son, who helped him last year, to school again in the eighth class. His second son, about 6 years old, helped him in driving the bullocks when working the Persian wheel, as this worked only for about an hour at a time. The time spent on cultivation work averaged 32·6 days of one man against 31·7 days and 15·5 days of a pair of bullocks per acre against 13·7 days last year. Out of this, the time spent on irrigation alone was 5·6 days of one man and 3·1 days of a pair per acre of holding.

The cultivator sold one of the two bullocks for Rs. 100/- in the middle of July and purchased another for Rs. 70/-. Towards the end of April, the latter was also sold for Rs. 60/-, as by that time the young bullock from other stock was put to the *phalla* for threshing wheat. Their cost of upkeep was Rs. 163/11/4 or Rs. 19/6/2 per acre against Rs. 26/3/7 last year.

Among *kamins*, in addition to the carpenter and blacksmith, are included such payments to a *chumar* as were made in view of

**Ibid.* pages 90-98, 89-102 and 70-76, respectively.

Part help rendered by him in agricultural operations. They received
 III. the following : --

			<i>Carpenter.</i>	<i>Blacksmith.</i>	<i>Chamar.</i>
			<i>Seers.</i>	<i>Seers.</i>	<i>Seers.</i>
Maize ..	..	6	6	..
Sugarcane juice ..	..	4	4	5
<i>Gur</i> ..	..	1	1	6
Tobacco ..	..	1	1	1
<i>Massar</i> ..	..	1	1	..
Wheat ..	..	8	8	8
		<i>Bundles.</i>	<i>Bundles.</i>	<i>Bundles.</i>	
Maize ..	..	2	2	2
Wheat ..	..	2	2	1
Green fodder ..	..	2	2	2

Near the end of the cotton season, picking was allowed free, at first to the carpenter and blacksmith and then to the barber and washerman. The amount picked by each of the first two was estimated at four seers.

The summary statement shows that the gross income derived from the total area amounted to Rs. 33/13/9 per acre against Rs. 56/2/8 the previous year, and deducting expenses of cultivation the cultivator was left with a net income of Rs. 8/0/8 per acre against Rs. 23/2/4. Again, when calculated after excluding the area near the *cho*, the gross income amounted to Rs. 46/1/9 against Rs. 72/6/10, and expenditure Rs. 37/6/2 against Rs. 44/0/3 and hence net income Rs. 8/11/7 against Rs. 28/6/7 per acre last year. The total net income of Rs. 73/10/8 worked out in terms of daily earnings is only Rs. 0/3/3 per day or Rs. 0/4/3 per day worked.

Labour Sheet showing the number of Days' Work performed by Men and Bullocks throughout the Year.

Part III. A.

	DAYS PER ACRE.												Total days.	Exclud- ing area under chose.
	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.			Includ- ing area under chose.
Farm cultivation ..	17.1	18.6	24.6	16.6	27.8	10.8	30.9	15.1	4.6	23.8	55.8	29.6	275.3	32.6
Other work ..	0.3	12.2	23.9	19.3	0.1	5.1	1.0	1.3	0.8	0.5	0.4	2.4	67.3	8.0
Work done outside ..	..	..	0.6	..	..	..	6.0	..	0.8	1.0	..	..	8.4	1.0
Bullock cultivation ..	11.1	8.4	15.4	9.6	21.6	4.8	10.3	4.9	2.4	13.3	11.5	17.8	131.1	15.5
Bullocks on other work ..	0.3	0.2	0.3	4.0	0.1	2.0	..	0.5	0.8	..	0.3	0.4	8.9	1.1
Bullocks working outside ..	..	..	0.6	..	..	..	6.0	..	0.8	1.0	..	..	8.4	1.0
Well-irrigation {	3.8	..	7.0	..	..	8.5	4.5	5.3	..	3.0	8.8	6.5	47.4	5.6
Bullock "	1.9	..	3.5	..	..	4.3	2.3	2.6	..	1.5	4.4	5.5	26.0	3.1

*These items have been included in 'Farm' and 'Bullock' Cultivations above.

INCOME.

A. K. M.
Area held—12 1 18

Part
III.
A.

Crop.	Area.	Outturn.	Rate per maund.	Value.
	A. K. M.	Md. Sr. Ch.	Rs. a. p.	Rs. a. p.
Sugarcane (<i>gur</i>)—				
<i>desi</i> ..	0 0 15	2 24 0	5 0 0	13 0 0
Coimbatore 223 ..	0 0 15	3 30 0	5 0 0	18 12 0
" (sold as seed) ..	0 0 11	..	..	28 0 0
Cane-tops ..	..	..	..	1 8 0
Cotton, lint ..	} 0 1 10	{ 0 36 8	13 5 0	12 2 4
" , seed ..		{ 1 19 0	1 11 0	2 7 10
Maize ..	0 4 5	10 7 0	1 4 0	12 11 6
" stalks ..	..	..	..	5 8 0
Wheat-gram ..	5 1 12	58 14 0	1 10 0	94 13 1
" " <i>bhusa</i> ..	..	86 16 0	0 6 8	36 0 0
Gram ..	0 1 10	2 24 0	2 5 8	6 1 11
" <i>bhusa</i> ..	..	4 0 0	0 6 0	1 8 0
Tobacco ..	0 2 15	4 39 0	5 0 0	24 14 0
Mango orchard ..	0 1 7	..	..	..
<i>Massar</i> ..	} 0 2 6	{ 2 11 0	1 10 8	3 12 8
Linseed ..		{ 0 20 8	4 7 1	2 4 5
<i>Massar bhusa</i> ..	..	4 0 0	0 8 0	2 0 0
Maize ..	0 2 6	..	} 0 13 0 6 8 0 4 0 0 3 4 9 5 0 0 1 0 0 0 5 6 2 0 0 2 10 8 8 0 0 4 5 4	1 13 11
<i>Guara</i> ..	0 1 3	..		7 7 7
<i>Chari</i> ..	0 1 10	..		6 0 0
" , <i>guara</i> ..	0 2 4	..		7 4 1
" , " ..	0 2 15	..		13 12 0
<i>Bajra</i> , ..	0 0 19	..		0 15 2
" , " ..	0 1 10	..		0 8 3
" , " ..	0 1 6	..		2 9 7
" , " ..	0 2 8	..		6 6 5
Wheat (sold) ..	0 0 15	..		6 0 0
" ..	0 1 4	..	9 9 7	
" ..	0 2 4	..	5 13 10	
<i>Senji</i> ..	0 1 10	..	6 8 0	
<i>Sarson</i> (in wheat) ..	..	0 21 8	4 0 0	2 2 5
" (green fodder) ..	..	..	..	9 2 0
Grass (from <i>cho</i>) ..	3 6 7	125 bundles.	..	25 0 0
Total ..	13 5 7	..	..	376 8 7

(Continued).

	Rs. a. p.	Rs. a. p.	Part III.
Brought forward	..	376 8 7	A.

ADD THE FOLLOWING PAID IN KIND—

1. *Harvesting*—

For detail see Analysis of Expenditure Statement—	10 14 4
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2. *Kamins*—

Cotton, 13 seers @ Rs. 4/- per maund ..	1 4 10	
<i>Gur</i> , 12 „ @ Rs. 5/- „ „ ..	1 8 0	
Cane-juice, 1 maund equivalent to 10 seers in <i>gur</i> @ Rs. 5/- per maund	1 4 0	
Wheat-gram, 1 maund 16 seers @ Rs. 1/10/- per maund	2 4 5	
<i>Massar</i> , 5 seers @ Rs. 1/10/8 per maund ..	0 3 4	
Tobacco, 6 „ @ Rs. 5/- „ ..	0 12 0	
Maize, 1 md. 4 srs. @ Rs. 1/4/- „ ..	1 6 0	
„ , 15 bundles equivalent to 3 maunds in grain @ Rs. 1/4/- per maund ..	3 12 0	
„ stalks	0 15 0	
Wheat, 14 bundles equivalent to 3 mds. 34 srs. in grain @ Rs. 1/10/- per md.	6 4 1	
„ <i>bhusa</i> , 7 mds. 4 srs. @ Rs. -/6/8 „	2 15 4	
	<hr/>	22 9 0

3. *Kept for seed*—

Sugarcane, <i>desi</i> , 2 <i>marlas</i> @ Re. 1/- per <i>marla</i>	2 0 0	
Maize cobs, 22 seers equivalent to 16 seers in grain @ Rs. 1/4/- per maund ..	0 8 0	
<i>Guara</i> , 32 seers @ Rs. 1/14/- „ „ ..	1 8 0	
<i>Bajra</i> , 8 „ @ Rs. 1/12/- „ „ ..	0 5 7	
	<hr/>	4 5 7
<i>Gross Income</i> ..		<hr/> <hr/> 414 5 6

ANALYSIS OF EXPENDITURE.

				Rs. a. p.	Rs. a. p.
Part III. A.	1. <i>Land Revenue</i>	..	..	..	26 4 0
	2. <i>Rent</i> —				
	Paid for 6 <i>kanals</i> 17 <i>marlas</i>	..	..	..	36 0 0
	3. <i>Upkeep of Bullocks</i> —				
	Previous year's <i>bhusa</i> , 150 maunds @ Rs. -/8/-				
	per maund	..	..	75 0 0	
	<i>Massar bhusa</i>	..	..	2 0 0	
	Maize stalks	..	..	5 8 0	
	Green fodder	..	..	79 6 5	
	Green grass from <i>cho</i>	..	..	25 0 0	
	Total fodders	..	..	186 14 5	
	Stock on farm—				
	One bullock worth Rs. 80/- throughout the year.				
	One bullock sold for Rs. 100/- in middle of July and another purchased for Rs. 70/-, which was also sold for Rs. 60/- at end of April; at this time a young bullock worth Rs. 60/- transferred to bullock account.				
	One Buffalo.				
	Bullocks' share of fodder - 24/47ths	..	..	95 7 0	
	Concentrates fed—				
	Gram, 9 maunds 32 seers	..	..	31 12 0	
	<i>Gur</i> , 32 seers	..	..	4 0 0	
	Salt	..	..	1 0 0	
	Cost of shoeing the bullocks	..	..	0 15 0	
	Interest and depreciation at Rs. 20 per cent. on—				
	Rs. 80/-	..	..	16 0 0	
	Rs. 100/- for 1½ months	..	..	2 8 0	
	Rs. 70/- for 9½ "	..	..	11 1 4	
	Rs. 60/- for 1 month	..	..	1 0 0	
					163 11 4
	4. <i>Harvesting</i> --				
	Wheat, 14 bundles, equivalent to 4 mds. 22 srs. in grain @ Rs. 1/10/- per maund	..	..	7 6 4	
	,, <i>bhusa</i> , 8 mds. 16 srs. @ Rs. -/6/8 per md.	..	..	3 8 0	
					10 14 4
	5. <i>Kamins</i> (Carpenter, Blacksmith and <i>Chamar</i>)--				
	Maize, 12 seers @ Rs. 1/4/- per maund	..	..	0 6 0	
	Cotton, 8 ,, @ Rs. 4/- ,, "	..	..	0 12 10	
	<i>Gur</i> , 8 ,, @ Rs. 5/- ,, "	..	..	1 0 0	
	Carried forward			2 2 10	236 13 8

	Rs. a. p.	Rs. a. p.	Part III. A.
Brought forward	2 2 10	236 13 8	
Wheat-gram, 24 seers @ Rs. 1/10/- per maund	0 15 7		
Massar, 2 seers @ Rs. 1/10/8	0 1 4		
Tobacco, 3 „ @ Rs. 5/-	0 6 0		
Sugarcane-juice, equivalent to 3 seers in gur @ Rs. 5/- per maund	0 6 0		
Maize, 6 bundles, 48 seers @ Rs. 1/4/- per md.	1 8 0		
„ stalks	0 6 0		
Wheat, 5 bundles, equivalent to 55 seers in grain @ Rs. 1/10/- per maund	2 3 9		
„ <i>bhusa</i> , 120 seers @ Rs. -/6/8 per maund	1 4 0		
Fodder, 6 bundles @ Rs. -/3/- per bundle	1 2 0		
	<hr/>	10 7 6	
6. <i>Well and Persian Wheel</i> —			
Share in repairs to well, Rs. 60/-			
Interest and depreciation at 10 per cent.	6 0 0		
Share in the Persian wheel- $\frac{1}{2}$, i.e., Rs. 75/-			
Interest at 8 per cent. on Rs. 75/-	6 0 0		
Depreciation at 16 $\frac{2}{3}$ per cent. on Rs. 25/-, chain	4 2 8		
Depreciation at 10 per cent. on Rs. 50/-, other parts	5 0 0		
Oil for lubrication	1 0 0		
Cost of repairs	0 2 0		
	<hr/>	22 4 8	
7. <i>Implements</i> —			
Interest and depreciation at—			
20 % on Rs. 31/-, cart	6 3 2		
18 % on Rs. 16/-, Hindustan plough	2 14 1		
Iron purchased for making petty hand tools	0 14 0		
	<hr/>	9 15 3	
8. <i>Seed</i> —			
Sugarcane	9 4 0		
Cotton (ratoon crop)	..		
Maize	1 0 0		
Wheat and gram	8 5 9		
Tobacco	0 3 0		
Massar	0 5 0		
Linseed	0 1 0		
<i>Chari, guarra, bajra, moth</i>	4 10 0		
<i>Senji</i>	0 7 0		
<i>Sarson</i>	0 5 0		
	<hr/>	24 8 9	
9. <i>Miscellaneous</i> —			
Casual labour for hoeing	2 13 0		
Farmyard manure, 17 cart-loads	8 8 0		
Ammonium sulphate	0 8 0		
	<hr/>	11 13 0	
<i>Total Expenditure</i>	..	<hr/> <hr/>	<hr/> <hr/> 315 14 10

EXPENDITURE.

Part
III.
A.

	INCLUDING AREA PREVIOUSLY LYING WASTE NEAR THE <i>cho</i> .		EXCLUDING AREA PREVIOUSLY LYING WASTE NEAR THE <i>cho</i> .	
	Total.	Per Acre.	Total.	Per Acre.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Land Revenue ..	26 4 0	2 2 4	26 0 0	3 1 3
Rent ..	36 0 0	*2 15 1	36 0 0	*4 4 3
Upkeep of Bullocks ..	163 11 4	13 6 1	163 11 4	19 6 2
Harvesting ..	10 14 4	0 14 3	10 14 4	1 4 8
<i>Kamins</i> ..	10 7 6	0 13 8	10 7 6	1 3 10
Well and Persian Wheel ..	22 4 8	1 13 2	22 4 8	2 10 3
Implements ..	9 15 3	0 13 0	9 15 3	1 2 10
Seed ..	24 8 9	2 0 1	24 8 9	2 14 6
Miscellaneous ..	11 13 0	0 15 5	11 13 0	1 6 5
<i>Total</i> ..	<i>315 14 10</i>	<i>25 13 1</i>	<i>315 10 10</i>	<i>37 6 2</i>

* Actually Rs. 42/0/8 per acre.

SUMMARY.

	Including area previously lying waste near the <i>cho</i> .		Excluding area previously lying waste near the <i>cho</i> .	
	Total.	Per Acre.	Total.	Per Acre.
Area held ..	A. K. M. 12 1 18		A. K. M. 8 3 11	
Area cropped ..	13 5 7		9 7 0	
Intensity of cropping ..	111.7 per cent.		116.95 per cent.	
	Total.	Per Acre.	Total.	Per Acre.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Gross Income ..	414 5 6	33 13 9	389 5 6	46 1 9
Expenditure ..	315 14 10	25 13 1	315 10 10	37 6 2
Net Income ..	98 6 8	8 0 8	73 10 8	8 11 7

HOLDING B.

This holding lies in a village about a mile from the Tanda ^{Part}Urmar railway station in the Dasuya ^{III.}Tahsil of Hoshiarpur District. ^{B.}The total area cultivated was 11 acres, 17 marlas, of which 4 acres, 2 kanals and 18 marlas were *chahi*, irrigated from two wells, and the remainder *barani*. From the income statement it will be seen that no cotton was grown, but sugarcane formed an important item in the cropping scheme. The cultivator had 1 acre, 5 kanals and 6 marlas under this crop and that alone is responsible for about 45 per cent. of the gross income for the year. A part of it was a ratoon crop, which matured so early that the cultivator could sow *senji* after its removal from the field. Of the area sown under maize, 1 acre, 2 kanals and 1 marla was *kharaba*. In *rabi* he had sown improved varieties of wheat, 8-A and Pusa 12, which, although prices were very low, brought a premium of 2 annas per maund. The intensity of cropping was 133·3 per cent.

The cultivator did not employ any permanent labourer for the whole year, but engaged three labourers at periods of pressure of work. He employed one man for 3 months in August and with his help prepared land for, and sowed, *rabi* crops. During the cane crushing season he employed two labourers who, excluding rainy days when no work could be done, put in 2½ months' work each and were paid accordingly. In addition at times, particularly in July, April and May, he employed casual labourers, whom he paid from two to eight annas per man daily and meals. All such payments amounted to Rs. 73/14/0, or Rs. 6/10/5 per acre. The three labourers including casual labourers, may be considered equivalent to one permanent labourer employed for the whole year. Calculating on this basis the daily earnings of the cultivator are Rs. 0/8/6 per day or Rs. 0/12/11 per day worked. The labour sheet shows that cultivation work averaged 43·1 days of one man and 18·1 days of a pair of bullocks per acre of holding. Of this, well-irrigation required 8·1 days of one man and 3·8 days of a pair of bullocks per acre.

Land revenue, after allowing for remission, was Rs. 45/13/6 or Rs. 4/2/1 per acre. This figure is perhaps higher than that of any other well-irrigated holding investigated so far.

The cultivator had two bullocks worth Rs. 210/- and the cost of their maintenance amounted to Rs. 188/1/5, or Rs. 16/15/0 per acre; from the labour sheet it is seen that they worked for 211·5 days during the year. The two wells and Persian wheels are owned entirely by this cultivator, and while he cultivated himself the whole of the land on one well, he rented out 7/25ths of his land on

Part III. B. the second and this has been taken into account in working out the expenses on well and Persian wheels, which are Rs. 52/12/4, or Rs. 4/12/0 per acre. The cost of implements, seed, harvesting and winnowing are Rs. 4/4/8, Rs. 4/2/9, Rs. 1/15/0 and Rs. 1/11/6 per acre of holding, respectively.

Among *kamins* only the blacksmith and carpenter have been charged. Each of them was given two bundles of maize, one pitcher of cane-juice, two bundles of wheat and four bundles of green fodder. No grain was given to them. One pitcher of juice is considered equivalent to 4 seers of *gur*. These payments amounted to Rs. 0/8/7 per acre.

The gross income from the holding was Rs. 62/8/7, while the expenditure was Rs. 45/2/0 per acre. The cultivator was thus left with a net income of Rs. 17/6/7 per acre.

Labour Sheet showing the number of Days' Work performed by Men and Bullocks throughout the Year.

Part
III.
B.

	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total days.	Days per acre.
Farm cultivation ..	23.3	31.9	21.3	39.1	48.4	45.5	59.3	17.3	23.5	91.7	42.1	35.3	478.7	43.1
Other work ..	3.5	11.8	..	..	6.0	3.0	0.8	6.3	1.0	0.4	0.4	0.3	33.5	3.0
Work done outside ..	..	..	..	..	..	39.0	..	..	..	..	..	..	39.0	3.5
Bullock cultivation ..	6.8	13.2	19.3	27.4	24.2	22.8	21.5	7.2	12.6	7.1	16.3	22.8	201.2	18.1
Bullocks on other work ..	..	0.4	..	..	3.0	1.5	0.8	2.5	1.0	0.4	0.4	0.3	10.3	0.9
Bullocks working outside ..	..	..	..	..	..	11.3	..	..	..	..	..	..	11.3	1.0
Manual labour ..	..	21.0	..	0.5	11.3	7.5	5.0	0.8	9.0	10.3	..	25.0	90.4	8.1
*Well-irrigation... (Bullock ..)	..	7.3	..	0.3	5.6	3.8	2.5	0.4	4.5	5.3	..	12.5	42.2	3.8

*These items have been included in 'Farm' and 'Bullock' Cultivations above.

INCOME.

A. K. M.
Area held—11 0 17

Part
III.
B.

Crop.	Area.	Outturn.	Rate per maund.	Value.
	A. K. M.	Mds. Srs.	Rs. a. p.	Rs. a. p.
Sugarcane, Co. 223 (early) ..	} 1 3 16	{ 30 0	5 0 0	150 0 0
„ „ (late) ..		{ 24 0	4 6 0	105 0 0
„ „ 205 ..	0 1 10	10 0	3 12 0	37 8 0
„ tops ..	..	..	..	10 0 0
Maize ..	2 6 18	18 0	1 4 0	22 8 0
„ stalks ..	..	200 bundles	..	8 0 0
Water melons and bajra ..	0 3 1	..	..	6 0 0
Chari, guara ..	1 0 14	..	} Per kanal. 4 0 0 5 5 4 2 0 0 6 10 8	34 12 10
Senji ..	0 3 16	..		20 4 3
„ ..	0 2 3	..		4 4 10
„ ..	0 2 4	..		14 10 8
Oats ..	0 0 15	..	4 0 0	3 0 0
Vegetables ..	0 0 8	..	..	3 0 0
Wheat-gram ..	7 4 16	..	..	..
Wheat, desi ..	..	42 0	1 3 0	49 14 0
„ „ 8-A. and Pusa 12 ..	..	55 0	1 5 0	72 3 0
Gram ..	..	20 0	1 10 8	33 5 4
Bhusa ..	..	174 0	0 5 4	58 0 0
Tobacco ..	0 0 8	0 20	4 0 0	2 0 0
Sarson (in wheat) ..	..	20 bundles.	Rs. -/3/- per bundle.	3 12 0
Total ..	14 6 9	..	..	638 2 11

(Continued.)

	Rs. a. p.	Rs. a. p.	Part III. B.
Brought forward	..	638 2 11	

ADD THE FOLLOWING PAID IN KIND—

1. *Harvesting*—

Maize, for taking out cobs, 37 seers 8 chataks @ Rs. 1/4/- per maund ..	1 2 9		
„ 4 bundles, equivalent to 1 maund grain @ Rs. 1/4/- per maund ..	1 4 0		
„ stalks	0 4 0		
Wheat-gram, 8 bundles, equivalent to 8 mds. 16 srs. grain @ Rs. 1/5/3 per maund ..	11 2 6		
Wheat <i>bhusa</i> , 12 maunds 24 seers @ Rs. -/5/4 per maund	4 3 2	18 0 5	

2. *Winnowing*—

For detail see Analysis of Expenditure Statement— ..		19 1 6	
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3. *Kamins*—

Maize, 11 bundles, equivalent to 2 maunds 30 seers in grain @ Rs. 1/4/- per maund	3 7 0		
„ stalks	0 11 0		
Wheat, 8 bundles, equivalent to 2 maunds 26 seers in grain @ Rs. 1/5/3 per md.	3 8 4		
„ <i>bhusa</i> , 3 mds. 39 srs. @ Rs. -/5/4	1 5 2		
Sugarcane juice, 6 pitchers, equivalent to 24 seers <i>gur</i> @ Rs. 3/12/- per maund ..	2 4 0	11 3 6	

4. *Kept for seed*—

Maize, 12 seers @ Rs. 1/4/- per maund ..	0 6 0		
<i>Senji</i> , 16 „ @ Rs. 2/- „ „ ..	0 12 10	1 2 10	

5. *Consumed in the household*—

Sugarcane juice, 7½ maunds, equivalent to 1½ mds. <i>gur</i> @ Rs. 4/9/0 per maund	6 13 6	
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<i>Gross Income</i> ..		<u>694 8 8</u>	
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	Rs.	a.	p.	Rs.	a.	p.	Part III. B.
Brought forward	..			408	5	2	
6. Seed—							
Sugarcane	25	0	0	
Maize	1	0	0	
Water melons and <i>bajra</i>	1	1	0	
<i>Chari, guara</i>	4	5	0	
<i>Senji</i>	1	0	0	
Oats	0	8	0	
Vegetables	0	6	0	
Wheat, gram and <i>sarson</i>	13	0	0	
Tobacco	0	1	0	
				<hr/>			46 5 0
7. Harvesting—							
Maize, 37½ seers @ Rs. 1/4/- per maund	..			1	2	9	
„ 4 bundles @ Rs. -/6/- per bundle	..			1	8	0	
Wheat, 28 „ „ „	..			15	5	8	
Meals to 28 men invited to assist in harvesting	..			3	8	0	
				<hr/>			21 8 5
8. Winnowing—							
<i>Gur to jhoka</i>							
Co. 223, 1 md. 30 srs. @ Rs. 4/6/- per md.	..			7	10	6	
Co. 205, 0 „ 13 „ @ Rs. 3/12/- „ „	..			1	3	6	
Wheat, <i>desi</i> , 2½ maunds @ Rs. 1/3/- „ „	..			2	15	6	
„ 8-A, 4 „ @ Rs. 1/5/- „ „	..			5	4	0	
„ <i>bhusa</i> , 6 „ @ Rs. -/5/4 „ „	..			2	0	0	
				<hr/>			19 1 6
9. Kamins (Carpenter and Blacksmith)—							
Maize, 4 bundles @ Rs. -/6/- per bundle	..			1	8	0	
Wheat, 4 „ equivalent to 48 seers in grain @ Rs. 1/5/3 per maund	..			1	9	6	
„ <i>bhusa</i> , 72 seers @ Rs. -/5/4 „ „	..			0	9	7	
Fodder, 8 bundles @ Rs. -/3/- per bundle	..			1	8	0	
Sugarcane juice, 2 pitchers, equivalent to 8 seers in <i>gur</i> @ Rs. 3/12/- per maund	..			0	12	0	
				<hr/>			5 15 1
<i>Total Expenditure</i>	..			<hr/>			<u>501 3 2</u>

EXPENDITURE.

Part III. B.				Total.	Per Acre.
				Rs. a. p.	Rs. a. p.
	Land Revenue	..	..	45 13 6	4 2 1
	Labour	..	..	73 14 0	6 10 5
	Upkeep of Bullocks	..	..	188 1 5	16 15 0
	Well and Persian Wheels	..	..	52 12 4	4 12 0
	Implements	..	..	47 11 11	4 4 8
	Seed	..	..	46 5 0	4 2 9
	Harvesting	..	..	21 8 5	1 15 0
	Winnowing	..	..	19 1 6	1 11 6
	<i>Kamins</i>	..	..	5 15 1	0 8 7
	<i>Total</i>	..	..	501 3 2	45 2 0

SUMMARY.

			A. K. M.
Area held	..	..	11 0 17
Area cropped	..	..	14 6 9
Intensity of cropping	..	..	133·3 per cent.

			Total.	Per acre.
			Rs. a. p.	Rs. a. p.
Gross Income	..	..	694 8 8	62 8 7
Expenditure	..	..	501 3 2	45 2 0
Net Income	..	..	193 5 6	17 6 7

PART IV.

Accounts of three holdings under Well-

Irrigation in the Amritsar District

during the year

1st July 1930 to 30th June 1931.

PART IV.

The 1928-29 accounts for three holdings of this district will be found in Part IV. of the accounts for that year and those for two holdings for 1929-30, in the same part of that year's accounts.* In the year under report records were maintained on three holdings. Accounts on this year's Holding B. were kept for the first time, whilst records on Holdings A. and C. have now been kept for three successive years. The following table shows the details of these holdings with regard to the source of irrigation :—

Holding.	Canal.	Well.	Barani.	Total.
	A. K. M.	A. K. M.	A. K. M.	A. K. M.
A. ...	7 6 6	8 4 9	0 3 19	16 6 14
B. ...	5 3 8	2 4 14	3 4 3	11 4 5
C. ..	13 1 8	3 1 19	2 6 15	19 2 2

The canal-irrigated area of Holding C. includes one acre and 18 *marlas* irrigated by canal in *kharif* and by well in *rabi*. The percentage of area irrigated by canal is highest in case of Holding B., while Holding C. has the highest proportion of *barani* land.

The net result of the year's accounts show the following :—

Holding.	Area held.	Intensity of cropping.	PER ACRE.			WORKING DAYS PER ACRE.	
			Gross income.	Expenditure.	Net income.	Men.	Bullocks.
	A. K. M.	Per cent.	Rs. a. p.	Rs. a. p.	Rs. a. p.		
A. ..	16 6 14	114.1	29 8 0	31 6 7	-1 14 7	23.4	11.7
B. ..	19 2 2	135.7	50 8 0	42 9 0	7 15 0	28.8	10.2
C. ..	11 4 5	119.9	37 3 6	37 2 10	0 0 8	31.2	10.8

Of these three holdings, B. gave the maximum return; this is perhaps because of the higher intensity of cropping and greater proportion of the area under canal-irrigation, than the other holdings. Holding A. suffered a loss, while C.'s income was just sufficient to cover the expenses of cultivation.

**Ibid.* pages 103-26 and 85-100, respectively.

Part
IV.

As these holdings have been farmed under different conditions, so it is necessary to place them on a comparable footing. Accordingly, where rent and labour have been paid for a part of a holding, these amounts have been omitted in the table given below, while full land revenue has been included in each case.

Holding.	Area held.	Intensity of cropping.	PER ACRE.			WORKING DAYS PER ACRE.	
			Gross income.	Expenditure.	Net income.	Men.	Bullocks.
	A. K. M.	Per cent.	Rs. a. p.	Rs. a. p.	Rs. a. p.		
A. ..	16 6 14	114.1	29 8 0	25 2 2	4 5 10	23.4	11.7
B. ..	19 2 2	135.7	50 8 0	26 6 7	24 1 5	28.8	10.2
C. ..	11 4 5	119.9	37 3 6	25 7 9	11 11 9	31.2	10.8

HOLDING A.

The accounts presented here are those of the third year in which the accounts have been kept on this farm. The records for the years 1928-29 and 1929-30 are given in Part IV. of the last two years' publications.*

Part
IV.
A.

In the year under report 16 acres, 6 kanals and 14 marlas were cultivated ; this area included 8 acres, 4 kanals and 9 marlas of *chahi*, and 3 kanals, 19 marlas of *barani* land. The remaining 7 acres, 6 kanals and 6 marlas were canal-irrigated. Out of the total cultivated area, 5 kanals, 12 marlas were farmed on the *batai* system with 1/3rd as the share of the tenant and 2/3rds of the landlord. The rest of the land was taken either on cash rent or *half-batai*. The land revenue of the part taken on cash rent was paid by the landlord, and other dues such as water rates, were paid by the tenant.

The labour expended per acre of holding amounted to 23·7 days of one man and 11·7 days of one pair of bullocks as against 27·7 days and 13·1 days, respectively, for the last year. This falling off in labour is due to lower intensity and lower proportion of well-irrigated area to total area as compared with the previous year. The intensity of cropping averaged 114·1 per cent. as compared with 124·5 and 139·2 per cent. during the last two years. There were two male members of the family who worked on the farm and the casual labour engaged during the year cost the cultivator Rs. 5/13/3 in all ; this has been included in miscellaneous expenditure. A pair of bullocks was kept throughout the year for the cultivation of the land. A bullock worth Rs. 80/- died after six months and a she-buffalo was bought for Rs. 29/- to take its place. The cost of the upkeep of draft cattle averaged Rs. 15/15/11 per acre as against Rs. 15/13/0 and Rs. 13/10/7, respectively, in the years 1928-29 and 1929-30.

Picking of cotton was done jointly by hired labour and the female members of the cultivator's family. The paid labour formed 1/3rd of the total strength of the pickers throughout the picking season and the labourers were given 1/9th of the amount they picked ; 31 seers of cotton was paid to them. A portion of the rice crop was harvested and threshed by casual labour ; for this the payment made was 5 per cent. of the yield obtained from that area. During the harvesting season 14 full-sized and 14 small bundles of wheat were given to the labourers. (Three small sized bundles were equal to one full-sized bundle.) Wincrowing was done entirely by the cultivator himself.

**Ibid.* pages 107-114 and 89-93, respectively.

Part Owing to the prevailing low prices the gross income from
IV. the farm is much below the usual return and this was accentuated
A. by the poor yields of some of the crops. Rice, sesamum, and
gram failed owing to no rain falling at the proper times and *toria*
was damaged by frost. As a result, of a combination, of all these
factors a gross income of only Rs. 29/8/0 per acre was obtained from
the holding. The total expenditure on cultivation was Rs. 31/6/7
per acre ; thus the cultivator suffered a loss of Rs. 1/14/7 per acre.

Labour Sheet showing the number of Days' Work performed by Men and Bullocks throughout the Year.

Part
IV.
A.

	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total days.	Days per acre.	
Farm cultivation	8·8	19·6	21·0	33·0	45·1	12·7	35·1	27·7	26·5	90·2	55·0	18·9	393·6	23·4
Other work	3·5	3·5	0·8	4·3	5·6	14·4	..	..	6·3	6·0	..	44·4	..	
Bullock cultivation	5·3	13·6	15·5	15·4	26·4	5·1	13·0	15·0	16·0	30·8	26·6	13·9	196·6	11·7
Other employment	0·8	4·3	3·4	5·4	..	..	..	..	..	13·9	..	
*Well-irrigation... {	0·8	..	13·5	28·5	6·8	22·4	10·5	15·0	24·0	2·3	123·8	7·4	
															..
Manual labour	Bullock														

*These items have been included in 'Farm' and 'Bullock' Cultivations above.

INCOME.

A. K. M.
Area held—16 6 14

Part
IV.
A.

Crop.	Area.	Outturn.	Rate per maund.			Value.			
			Rs.	a.	p.	Rs.	a.	p.	
	A. K. M.	Mds. Srs.							
Rice	0 1 13*	2 6	1	9	7	3	7	0	
Sesamum	0 3 19*	0 12	5	0	0	1	8	0	
Rice	0 2 8	7 20	1	9	7	11	15	11	
„ straw .. ..	.. ..	.. ..	..	..	..	2	0	0
Cotton	2 3 9	20 9	4	11	4	95	3	7	
„ sticks .. ..	.. ..	.. ..	..	..	..	6	0	0
Wheat	9 3 5	92 0	1	7	0	132	4	0	
„ bhusa .. ..	.. ..	130 0	0	5	0	40	10	0
Toria	1 7 5	11 30	3	8	0	41	2	0	
Berra and gram	2 5 7	22 10	2	0	0	44	8	0	
„ „ bhusa .. ..	.. ..	31 0	0	5	0	9	11	0
Chari, guara	0 3 10	Per kanal.	5	7	5	19	2	0
„ „	0 2 6		5	2	10	11	14	6
Senji	0 2 12		3	10	2	9	7	3
„	0 6 1		4	13	4	29	3	10
Sarson (in wheat) .. ..	.. ..	.. ..	..	..	..	14	8	0
Total	19 1 15	.. ..	..	..	..	472	9	1

* On *batui*.

ADD THE FOLLOWING PAID IN KIND—

1. *Harvesting*—

				Rs.	a.	p.
Rice, 20 seers .. ..	.. ..	.. ..	.. ..	0	12	10
Cotton, 31 „ .. ..	.. ..	.. ..	.. ..	3	10	5
Wheat, 14 bundles @ Rs. -/9/5 per bundle				8	3	10
„ 14 „ @ Rs. -/3/2 „				2	12	4
						15 7 5

2. *Kamins*—

Wheat, 10 bundles @ Rs. -/9/5 per bundle				5	14	2
Chari, 6 „ @ Rs. -/3/6 „				1	5	0
Senji, 6 „ @ Rs. -/4/- „				1	8	0
						8 11 2

Gross Income

496 11 8

ANALYSIS OF EXPENDITURE.

				Rs.	a.	p.	Rs.	a.	p.	Part IV. A.
1. <i>Water Rates</i> —										
<i>Kharif</i>	..	..	..	21	12	6				
<i>Rabi</i>	..	..	..	8	10	6				
							30	7	0	
2. <i>Rent</i> —										
Cash	..	..	..	128	0	0				
Wheat, 24 maunds @ Rs. 1/7/- per maund	..		..	34	8	0				
„ <i>bhusa</i> 16 mds. @ Rs. -/5/- „	..		..	5	0	0				
Rice and <i>sesamum</i>	..	..	..	2	4	8				
							169	12	8	
3. <i>Upkeep of Bullocks</i> —										
Last year's <i>bhusa</i>	..	..	..	54	6	0				
<i>Bhusa</i> bought	..	..	..	18	1	0				
Green fodder produced		..	..	84	3	8				
„ „ bought	..	..	..	12	0	0				
Grass	..	..	..	7	11	0				
Total fodders			..	176	5	8				
Total adult stock—3 animals.										
Bullocks, 2										
Bullocks' share of fodder—2/3rds			..	117	9	1				
Concentrates—										
Gram	..	..	..	22	0	0				
Wheat	..	..	..	16	5	3				
<i>Gur</i>	..	..	..	3	10	6				
Cotton seed	..	..	..	2	2	0				
Salt	..	..	..	2	0	0				
Interest and depreciation at—										
20 % on Rs. 90/-	..	..	..	18	0	0				
20 % on Rs. 29/- for six months	..		..	2	14	5				
Interest at 8 % on Rs. 80/- for six months	..		..	3	3	2				
Casualty	..	..	..	80	0	0				
Shoeing of bullocks	..	..	..	1	9	0				
							269	5	5	
Carried forward	..		..	469	9	1				

Part
IV.
A.

				Rs. a. p.	Rs. a. p.
				Brought forward	469 9 1
4. <i>Seed</i> --					
Rice	..	..	..	0 3 2	
<i>T'il</i> (sesamum)	..	..	..	0 6 0	
Cotton	..	..	..	1 6 3	
Wheat	..	..	..	15 8 3	
<i>Toria</i>	..	..	..	1 0 0	
Gram	..	..	..	2 8 9	
<i>Chari, guara</i>	..	..	..	3 0 0	
<i>Senji</i>	..	..	..	1 8 0	
<i>Sarson</i>	..	..	..	1 0 0	
					26 8 5
5. <i>Implements</i> --					
Replacements	..	..	..	..	0 4 6
6. <i>Kamins</i> --					
Rice, 25 seers	..	..	..	1 10 8	
Cotton, 4½ "	..	..	..	0 8 6	
<i>Toria</i> , 8 "	..	..	..	0 11 2	
Wheat, 26 "	..	..	..	0 14 11	
Wheat, 6 bundles, @ Rs. -/9/5 per bundle	..	..	..	3 8 6	
<i>Chari</i> , 4 " @ Rs. -/3/6 "	..	..	..	0 14 0	
<i>Senji</i> , 4 " @ Rs. -/4/- "	..	..	..	1 0 0	
					9 3 9
7. <i>Harvesting</i> --For detail see Income Statement--				..	15 7 5
8. <i>Miscellaneous</i> --					
Oil	..	..	..	2 0 0	
Labour	..	..	..	5 13 3	
					7 13 3
<i>Total Expenditure</i>				..	<u>528 14 5</u>

EXPENDITURE.

Part
IV.
A.

	Total.			Per Acre.		
	Rs.	a.	p.	Rs.	a.	p.
Water Rates	30	7	0	*1	12	11
Rent	169	12	8	10	1	4
Upkeep of Bullocks	269	5	5	15	15	11
Seed	26	8	5	1	9	3
Implements	0	4	6	0	0	3
Kamins	9	3	9	0	8	9
Harvesting	15	7	5	0	14	9
Miscellaneous	7	13	3	0	7	5
<i>Total</i>	<i>528</i>	<i>14</i>	<i>5</i>	<i>31</i>	<i>6</i>	<i>7</i>

*Actually Rs. 3/14/3 per acre.

Note.—Land revenue was paid by the landlord at Rs. 1/14/- per acre. This item, therefore, does not appear in the above statement which shows the tenants' expenses only.

SUMMARY.

			A. K. M.		
Area held .. ..	..	..	16	6	14
Area cropped .. ..	..	..	19	1	15
Intensity of cropping .. ..	..	..	114.1	per cent.	
			Total.		
			Per acre.		
			Rs.	a.	p.
Gross income .. ..	..	..	496	11	8
Expenditure .. ..	..	..	528	14	5
Net loss .. ..	..	..	—32	2	9
			29	8	0
			31	6	7
			—1	14	7

HOLDING B.

Part IV. B. Accounts have not been kept on this holding hitherto. It is three miles from Tarn Taran and half a mile from Dukh Nawaran—the nearest railway station. The land is mostly canal-irrigated (about two-thirds of total) and the rest either received no water or was irrigated by well. The following are the details of the area:—

	A. K. M.		
<i>Nahri</i> 13 1 8
<i>Chahi</i> 3 1 19
<i>Barani</i> 2 6 15
<i>Total</i> 19 2 2

Of the total, the farmer owned only 9 acres, 2 kanals and 16 marlas, and the remainder 9 acres, 7 kanals and 6 marlas, was farmed on *batai* with equal division of its produce between landlord and cultivator. From the statements it will be seen that, in the income, the total yields of all the crops have been taken in order to work out the gross income, while in the expenditure the payments made to the landlord have been shown as rent paid in kind. If, on the other hand, only half of the outturns taken on *batai* had been shown in the income, this could not represent the actual position of the holding. The cultivator paid only half of the land revenue and water rates for the area not owned and this has been included in the total government dues. The cost of seed and *kamins'* dues in connection with this land were borne entirely by the cultivator. Whenever the land is taken on rent the cultivator usually pays full water rates and no land revenue. This must be kept in mind when studying figures for this farm.

From the labour sheet it will be seen that the manual labour used in the cultivation of the holding averaged 28·8 days of one man per acre. Bullock labour was 10·15 days of a pair of bullocks per acre. The figures for manual labour and bullock labour spent on lifting water from wells are 2·88 days and 1·44 days, respectively, per acre of the area held, and these have also been included in the total cultivation days. The average intensity of cultivation was 135·7 per cent.

One pair of bullocks was kept throughout the year for the cultivation work. The expenditure on them was Rs. 12/4/6 per acre.

Two able-bodied men belonging to the cultivator's family worked on the farm; one labourer was also employed throughout the year. He was given Rs. 100/- plus food, clothes and shoes. His total cost came to Rs. 145/8/0. Casual labourers assisted the permanent workers when necessary, particularly during harvesting operations.

Rice was harvested, threshed and carted to the farmer's godown by the casual labour at a cost of 3 seers per maund. A boy engaged when taking out maize cobs was paid 5 seers of maize. Labourers who helped in the digging out of potatoes received 2 maunds and 5 seers of tubers. One casual labourer was employed to look after maize and potatoes when these crops were ready. He also helped the farmer in all the field operations of these crops and received in return one-quarter share of each of the two crops. In the harvesting season of wheat *lavas* were given 33 bundles. Twenty-eight of these were paid for the land taken on *batai* and their cost was borne jointly by the landlord and tenant. A bundle yielded 17 seers of grain and 24 seers of *bhusa*. The winnowing of grain was done entirely by the permanent labourer; thus no charge for this item appears in the expenses.

The carpenter and blacksmith were charged against the farm and each of them was paid as follows:—

					<i>Seers.</i>
Rice	..	..	..	..	8
Maize	..	..	..	..	6
Cotton	..	..	..	..	1
<i>Toria</i>	..	..	..	..	4
Wheat	..	..	..	..	12
					<i>Bundles.</i>
Wheat	..	..	..	..	2
<i>Chari</i>	..	..	..	..	2
<i>Senji</i>	..	..	..	..	2
Maize	..	..	..	..	1
Rice	..	..	..	..	1

The blacksmith also received an additional bundle of wheat.

The gross income from the year's working was Rs. 50/8/0 per acre, and deducting the expenses of cultivation amounting to Rs. 42/9/0 per acre, the cultivator had a net return of Rs. 7/15/0 per acre for his year's work. He thus secured a better income than each of the other two farmers of this district whose accounts have been kept.

Labour Sheet showing the number of Days' Work performed by Men and Bullocks throughout the Year.

	July.	August.	September	(October.	November.	December.	January.	February.	March.	April.	May.	June.	Total days.	Days per acre.
Farm cultivation	.. 23.2	55.5	48.3	64.4	63.1	24.2	41.0	25.5	26.6	78.6	55.8	47.9	554.1	28.8
Other work	.. 0.4	0.8	1.2	0.5	1.9	1.1	1.8	0.4	0.8	1.2	2.2	1.5	13.8	..
Work done outside	.. 1.5	2.0	16.5	13.9	11.2	9.9	14.2	4.0	13.5	14.6	8.5	14.3	124.1	..
Bullock cultivation	.. 14.1	25.5	23.8	24.0	23.4	3.4	3.1	6.6	17.8	10.5	30.6	12.7	195.5	10.15
Other employment	.. 0.4	0.8	1.2	0.5	1.9	1.1	1.8	0.4	0.8	1.2	2.2	1.5	15.8	..
Bullocks working outside	.. 1.5	2.0	17.1	13.9	11.2	7.5	7.6	4.0	8.1	5.1	5.6	4.4	38.0	..
*Well-irrigation..	.. ..	.. ..	.. 1.5	.. ..	30.0	5.3	..	1.8	14.8	2.0	..	..	55.4	2.88
	.. ..	.. ..	0.8	.. ..	15.0	2.6	..	0.9	7.4	1.0	..	..	27.7	1.44
	.. ..	.. ..	0.8	.. ..	15.0	2.6	..	0.9	7.4	1.0	..	..	27.7	1.44

*These items have been included in ' Farm ' and ' Bullock ' Cultivations above.

INCOME.

A. K. M.
Area held—19 2 2Part
IV.
B.

Crop.	Area.	Outturn.		Rate per maund.			Value.		
		A. K. M.	Mds. Srs.	Rs.	a.	p.	Rs.	a.	p.
<i>Owned—</i>									
Cotton ..	1 3 6	8 8		4 7 9		36 12 4			
Rice, <i>basmati</i> ..	0 1 11	4 27		2 5 6		10 15 4			
„ „ <i>jhona</i> ..	0 1 8	2 22		1 14 0		4 12 6			
<i>Toria</i> ..	0 6 2	4 10		3 4 0		13 13 0			
Potato ..	0 3 8	26 16		2 8 0		66 0 0			
Gram ..	0 5 16	3 35		2 1 0		7 15 11			
Wheat-gram ..	2 0 17	22 0		1 9 0		34 6 0			
„ „ <i>bhusa</i> ..	..	35 0		0 5 0		10 15 0		
Wheat ..	2 2 19	33 15		1 10 0		54 3 9			
„ „ <i>bhusa</i> ..	..	49 0		0 5 0		15 5 0		
Barley ..	0 1 17	0 25		1 5 0		0 13 2			
<i>Senji</i> ..	0 2 1	2 0		2 0 0		4 0 0			
<i>Batai—</i>									
Cotton ..	1 0 2	6 0		4 7 9		26 14 6			
<i>Kangani</i> ..	0 2 19	Destroyed.							
Rice, <i>jhona</i> ..	0 3 11	12 30		1 14 0		23 14 6			
Maize ..	0 3 14	7 20		1 10 0		12 3 0			
„ stalks ..	..	12 bundles		Rs. -/3/- each		2 4 0		
<i>Sesamum</i> ..	0 4 1	1 13		4 2 0		5 7 5			
<i>Toria</i> ..	0 6 6	7 1		2 11 0		18 14 1			
Wheat-gram ..	0 7 10	10 0		1 13 0		18 2 0			
„ „ <i>bhusa</i> ..	..	13 20		0 5 0		4 3 6		
Wheat ..	4 2 16	70 30		1 10 0		114 15 6			
„ „ <i>bhusa</i> ..	..	106 0		0 5 0		33 2 0		
<i>Chari</i> ..	0 3 15	..		3 5 0		12 6 9			
„ ..	0 1 16	..		4 13 0		8 10 7			
<i>Moth, guaru</i> ..	0 4 13	..		0 10 0		2 14 6			
<i>Chari, guara</i> ..	0 2 2	..		2 7 0		5 1 11			
„ „ ..	0 4 11	..		1 13 0		8 3 11			
Wheat ..	0 4 8	..		8 8 0		37 6 5			
<i>Senji, shaftal</i> ..	0 3 11	..		7 4 0		25 11 9			
<i>Maina</i> ..	0 4 0	..		1 12 0		7 0 0			
<i>Owned—</i>									
<i>Chari</i> ..	0 5 16	..		4 4 0		24 10 5			
„ „ <i>guara</i> ..	0 2 15	..		3 15 0		10 13 3			
„ „ „ ..	0 6 16	..		1 13 0		12 5 2			
Maize, <i>mungi</i> ..	0 3 8	..		4 13 0		16 5 10			
<i>Senji</i> ..	0 1 7	..		7 4 0		9 12 7			
„ „ <i>berseem</i> ..	0 5 19	..		15 2 0		89 15 11			
„ „ „ ..	0 4 1	..		6 0 0		24 4 10			
„ „ „ ..	0 3 16	..		3 10 0		13 12 5			
„ „ <i>shaftal</i> ..	0 1 8	..		8 8 0		11 14 5			
„ „ „ ..	0 1 11	..		7 4 0		11 3 10			
Dried <i>chari</i> ..	0 3 4	..		..		21 14 0		
<i>Sarson</i> (in wheat) ..	..	..		..		15 0 0		
Vegetables ..	..	Consumed by family.				..		
Total ..	26 1 1	..		..		889 9 0		

(Continued.)

	Rs.	a.	p.	Rs.	a.	p.
Brought forward	..			889	9	0

Part ADD THE FOLLOWING PAID IN KIND—

IV.

B.

1. *Harvesting*—

Cotton, 1 maund 1 seer	..	..	4	9	7	
,, , 30 seers	..	..	3	5	10	
Rice, <i>jhona</i> , 4½ seers	..	..	0	3	5	
,, , <i>basmati</i> , 14 ,,	..	..	0	13	2	
,, , <i>jhona</i> , 1 maund	..	..	1	14	0	
Maize, 5 seers	..	..	0	3	3	
Potatoes, 2 maunds 5 seers	..	..	5	5	0	
Wheat, 33 bundles @ Rs. -/14/1 per bundle			29	0	9	
						45 7 0

2. *Kamins*—

Rice, <i>jhona</i> , 30 seers	..	..	1	6	6	
Maize, 1 bundle @ Rs. -/13/- per bundle	..	..	0	13	0	
Wheat, 12 ,, @ Rs. -/11/7 ,,	..	..	8	11	0	
<i>Chari</i> , 6 ,, @ Rs. -/3/- ,,	..	..	1	2	0	
<i>Senji</i> , 12 ,, @ Rs. -/3/6 ,,	..	..	2	10	0	
						14 10 6

3. *Kept for Seed*—

Potatoes, 1 maund	2	8	0	
<i>Berseem</i> , 1 maund 15 seers	20	10	0	
						23 2 0

<i>Gross Income</i>	..					972 12 6
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ANALYSIS OF EXPENDITURE.

1. Labour—

	Rs.	a.	p.	Rs.	a.	p.	Part IV. B.
(a). Permanent—							
Pay	100	0	0				
Food, clothes and shoes, etc. ..	45	8	0				
(b). Casual—							
A boy for potato and maize crops ..	13	0	9				
Miscellaneous	25	4	0				
				183	12	9	

2. Upkeep of Bullocks—

Last year's <i>bhusa</i>	58	8	0				
Dried <i>chari</i>	21	14	0				
Maize stalks	2	4	0				
Green fodders	282	14	7				
<i>Sarson</i>	15	0	0				
Total fodders	380	8	7				

Total adult stock— $4\frac{2}{3}$ animals.

Bullocks, 2.

Bullocks' share of fodders— $\frac{3}{7}$ ths .. 163 1 5

Concentrates—

Gram 14 0 0

Wheat 2 6 0

„ flour 10 0 0

Cotton seed 2 13 0

Gur 3 8 0

Oil 1 12 0

Salt 1 4 0

Miscellaneous—

Shoeing of bullocks 1 4 0

Jhuls 1 8 0

Ropes 1 0 0

Interest and depreciation at 20 % on Rs. 170/- 34 0 0

236 8 5

3. Land Revenue and Water Rates—

Land Revenue 32 2 0

Water Rates 47 1 9

79 3 9

Carried forward .. 499 8 11

		Rs. a. p.	Rs. a. p.
Brought forward		..	499 8 11
Part IV. B.	4. <i>Harvesting</i> —		
	Cotton, 1 maund „ „ 15 seers Rice, <i>jhona</i> , 4½ seers „ „ <i>basmati</i> , 14 seers „ „ <i>jhona</i> , 20 seers Maize, 5 seers Potatoes, 2 maunds 5 seers Wheat, 19 bundles @ Rs. -/14/1 per bundle	4 9 7 1 10 11 0 3 5 0 13 2 0 15 0 0 3 3 5 5 0 16 11 7	30 7 11
	5. <i>Kamins</i> —		
	Rice, <i>jhona</i> , 16 seers Maize, 12 seers Cotton, 2 „ <i>Toria</i> , 8 „ Wheat, 24 „ „ 5 bundles @ Rs. -/11/7 per bundle <i>Chari</i> , 4 „ @ Rs. -/3/- „ <i>Senji</i> , 4 „ @ Rs. -/3/6 „ Maize, 2 „ @ Rs. -/6/6 „ Rice, 2 „ @ Rs. -/11/3 „	0 12 0 0 7 10 0 3 7 0 10 5 0 15 7 3 9 11 0 12 0 0 14 0 0 13 0 1 6 6	10 8 10
	6. <i>Seed</i> —		
	<i>Chari</i> <i>Guara</i> Maize <i>Mungi</i> <i>Bajra</i> <i>Moth</i> Cotton <i>Kangani</i> Rice, <i>jhona</i> „ „ <i>basmati</i> <i>Sesamum</i> <i>Toria</i> Potato Vegetables Wheat and gram Barley <i>Senji</i> <i>Shaftal</i> <i>Berseem</i> <i>Sarson</i>	9 8 9 0 11 6 1 1 6 0 6 0 0 7 9 0 2 9 0 9 6 0 2 9 0 5 6 0 2 6 0 7 0 0 9 6 14 0 0 1 4 0 17 1 6 0 4 0 5 2 6 0 9 0 6 0 0 1 0 0	60 0 0
	Carried forward	..	600 9 8

		Rs. a. p.	Rs. a. p.	Part
	Brought forward ..	..	600 9 8	IV. B.
7. Implements—				
	Interest and depreciation at 28 % on Rs. 8/5/4, ½rd share in a fodder cutter worth Rs. 25/-	2 5 4		
	Replacements and repairs	6 6 0		
	Oil for lubrication of fodder cutter ..	0 8 0		
		-----	9 3 4	
8. Well and Persian Wheels—				
	Share in Persian wheels—23/9/1.			
	Interest and depreciation at—			
	33 % on Rs. 7/14/-, chains ..	2 9 7		
	18 % on Rs. 15/11/1, remainder ..	2 13 2		
	18 % on Rs. 6/-, boring charges ..	1 1 3		
	Repairs, etc.	0 5 4		
		-----	6 13 4	
9. Rent in kind—				
	.. ..	..	198 10 3	
10. Miscellaneous—				
	.. ..	..	4 8 0	
	<i>Total Expenditure</i> ..		<u>819 12 7</u>	

*EXPENDITURE.*Part
IV.
B.

	Total			Per Acre.		
	Rs.	a.	p.	Rs.	a.	p.
Labour	183	12	9	9	8	8
Upkeep of Bullocks	236	8	5	12	4	6
Land Revenue	32	2	0	*1	10	8
Water Rates	47	1	9	*2	7	2
Harvesting	30	7	11	1	9	4
<i>Kamins</i>	10	8	10	0	8	9
Seed	60	0	0	3	1	10
Implements	9	3	4	0	7	8
Well and Persian Wheels	6	13	4	0	5	8
Rent in kind	198	10	3	†10	5	0
Miscellaneous	4	8	0	0	3	9
<i>Total</i>	<i>819</i>	<i>12</i>	<i>7</i>	<i>42</i>	<i>9</i>	<i>0</i>

* Actually land revenue and water rates were paid at Rs. 2/3/2 and Rs. 5/5/0 per acre, respectively.

† Actually Rs. 20/0/8 per acre.

SUMMARY.

			A. K. M.		
			Total.	Per acre.	
			Rs. a. p.	Rs. a. p.	
Area held	19	2	2
Area cropped	26	1	1
Intensity of cropping .. .. .	..	..	135.7 per cent.		
Gross income	972	12	6
Expenditure	819	12	7
Net income	152	15	11

HOLDING C.

This holding is the same as Holding C. of Part IV. of *Farm Accounts* for 1928-29 and 1929-30,* and the accounts that follow are for the third year for which records have been kept. Part
IV.
C.

This cultivator owned 2 *acres*, 7 *kanals* and 3 *marlas* of land and he took on cash rent 8 *acres*, 5 *kanals* and 2 *marlas*; he thus had a total area of 11 *acres*, 4 *kanals* and 5 *marlas*. For the rented area he paid Rs. 155/4/0 for the year, which is equivalent to Rs. 17/15/7 per acre. The details of the total area held with regard to irrigation are shown below :—

		A.	K.	M.
<i>Chahi</i>	2	4 14
<i>Nahri</i>	4	2 10
<i>Nahri-chahi</i>	1	0 18
<i>Barani</i>	3	4 3
<i>Total</i>		..	11	4 5

In the case of *nahri-chahi* land, water was applied from canal in *kharif* season, whilst in winter, well-water was used for irrigation. Purely *nahri* was irrigated in *kharif* and in *rabi* by canal water. The *barani* area comprised all the area owned and five *kanals* of the rented portion of the holding.

From the statements it will be seen that labour on cultivation during the year was equivalent to 31·2 days of one man and 10·8 days of a pair of bullocks per acre. Last year these figures were 26·1 days and 11·8 days, respectively. The intensity of cropping was 119·9 per cent. as against 110·5 per cent. in 1929-30 and 107·6 per cent. in 1928-29.

On this holding one pair of working bullocks was kept throughout the year. After two months one of these worth Rs. 120/- was given to a money-lender and another worth Rs. 150/- was bought on the same day to take its place. The expenditure on the upkeep of bullocks amounted to Rs. 11/12/5 per acre, which is roughly equal to the average of the figures for the last two years.

* *Ibid.* pages 120-26 and 94-100, respectively.

Part IV. C. The carpenter and blacksmith were each paid dues as follows :—

			<i>Seers.</i>
Cotton	..	..	5
<i>Toria</i>	..	..	5
Maize	..	..	20
Wheat	..	..	24
			<i>Bundles.</i>
Wheat	..	..	3
<i>Chari</i>	..	..	4
<i>Senji</i>	..	..	4

The picking of cotton was done entirely by casual labour at 1/9th share of the total produce. The labour engaged for the taking out of maize cobs cost 30 seers of maize cobs, *i.e.*, 20 seers of grain. The cultivator employed some *lavas* to help him in the harvesting of wheat and paid them 16 bundles. Sixteen small bundles, equivalent to two large bundles, were also given to these people. Wheat and *berra* were winnowed for 5 per cent. and *toria* $3\frac{3}{4}$ of the produce by casual labour.

The gross income from the land fell this year to Rs. 37/3/6 from Rs. 49/10/3 per acre last year. The total expenditure amounted to Rs. 37/2/10 thus leaving a net return of eight pies per acre only. In other words, the income of the land was just sufficient to cover the cost of running the farm and the cultivator was left with practically nothing to support himself and his family.

Labour Sheet showing the number of Days' Work performed by Men and Bullocks throughout the Year.

	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total days.	Days per acre.
Farm cultivation ..	22.3	27.1	27.9	29.1	20.0	29.8	29.5	16.2	24.7	60.1	44.0	28.5	360.1	31.2
Other work ..	4.0	4.9	0.8	0.6	8.7	2.4	13.0	5.4	1.4	0.9	1.4	23.0	66.5	..
Labour performed outside ..	..	..	..	6.0	10.0	5.0	1.0	..	..	3.0	..	..	25.0	..
Bullock cultivation ..	6.8	7.3	13.5	13.9	11.5	9.5	5.0	5.5	11.0	12.2	22.5	6.3	125.0	10.8
Other employment ..	1.5	2.1	0.8	0.6	1.2	0.9	6.5	3.1	1.4	0.9	1.4	10.0	30.4	..
Bullocks working outside ..	..	..	..	6.0	10.0	5.0	1.0	..	1.0	1.5	1.0	..	25.5	..
Manual labour	..	..	..	2.3	4.5	11.0	12.0	9.0	15.0	4.5	0.4	..	58.7	5.1
*Well-irrigation..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bullock "	..	..	..	1.2	2.3	5.5	6.0	4.5	7.5	2.3	0.2	..	29.5	2.6

*These items have been included in 'Farm' and 'Bullock' Cultivations above.

INCOME.

A. K. M.
Area held—11 4 5

Part
IV.
C.

Crop.	Area.	Outturn.	Rate per maund.			Value.		
			A. K. M.	Mds. Srs.	Rs. a. p.	Rs. a. p.		
Cotton	2 1 15	13 0	4 8 0	58 8 0				
Maize	0 6 11	7 0	1 8 0	10 8 0				
„ stalks .. ..	.. ..	..	..	2 8 0	
Toria	0 7 7	9 20	3 10 0	34 7 0				
Barley	0 3 4	4 12	1 4 0	5 6 0				
Wheat and berra ..	6 7 10	75 9	1 10 6	124 9 6				
„ „ bhusa .. ..	.. ..	140 0	0 5 4	46 10 8			
Chari	1 1 11	..	Per kanal. { 4 0 0 2 0 0 4 8 0 5 0 0	38 3 2				
„	0 1 16	..		3 9 7				
Senji	0 2 10	..		11 4 0				
„	0 6 9	..		32 4 0				
Sarson (in wheat) ..	.. ..	..	..	18 0 0	
<i>Total</i>	<i>13 6 13</i>	..	..	<i>385 13 11</i>		

ADD THE FOLLOWING PAID IN KIND—

1. <i>Harvesting</i> —			Rs. a. p.
Cotton, 1 maund 25 seers .. ..	.. ..	7 5 0	
Maize cobs, 30 seers .. ..	.. ..	0 12 0	
Wheat, 18 bundles @ Rs. -/10/7 per bundle..	.. ..	11 14 6	
			19 15 6
2. <i>Winnowing</i> —			
Toria, 15 seers .. ..	.. ..	1 5 9	
Wheat and gram, 3 maunds 38 seers ..	.. ..	6 8 8	
			7 14 5
3. <i>Kamins</i> —			
Maize, 1 maund 13 seers .. ..	.. ..	1 15 10	
Wheat, 13 bundles, @ Rs. -/10/7 per bundle	.. ..	8 9 7	
Chari, 12 „ @ Rs. -/3/- „ ..	.. ..	2 4 0	
Senji, 12 „ @ Rs. -/3/6 „ ..	.. ..	2 10 0	
			15 7 5

Gross Income 429 3 3

ANALYSIS OF EXPENDITURE.

			Rs.	a.	p.	Rs.	a.	p.	Part IV. C.
1. <i>Land Revenue and Water Rates</i> —									
Land Revenue	1	7	3			
Water Rates	28	3	0			
				<hr/>			29	10	3
2. <i>Rent (Cash)</i> -- 155 4 0									
3. <i>Upkeep of Bullocks</i> —									
Last year's <i>bhusa</i>	61	3	0			
<i>Bhusa</i> sold	20	0	0			
„ fed	41	3	0			
Green fodder produced	85	4	9			
<i>Senji</i> bought	5	0	0			
Maize stalks	2	8	0			
<i>Sarson</i>	18	0	0			
Grass	10	0	0			
				<hr/>					
Total fodders	161	15	9			
Total adult stock—5 $\frac{3}{4}$ animals.									
Bullocks, 2.									
Bullocks' share of fodders—6/17ths	57	2	9			
Concentrates—									
Gram	32	10	0			
Oil	3	0	0			
„ cakes	2	0	0			
Salt	3	0	0			
Interest and depreciation at 20 per cent. on—									
Rs. 120/-, for 2 months	4	0	0			
Rs. 150/-, for 10 „	25	0	0			
Rs. 45/-, for one year	9	0	0			
							135	12	9
4. <i>Seed</i> —									
<i>Chari</i>	3	6	6			
Cotton	1	2	0			
Maize	0	6	0			
<i>Senji</i>	1	2	0			
<i>Toria</i>	0	6	0			
Barley	0	7	6			
Wheat	12	0	0			
Gram	0	5	6			
<i>Sarson</i>	1	0	0			
				<hr/>			20	3	6
Carried forward							340	14	6

				Rs. a. p.	Rs. a. p.
Brought forward				..	340 14 6
Part IV. C.	5. <i>Implements</i> —				
	Replacements	..	..	..	2 7 0
	6. <i>Kamins</i> —				
	<i>Toria</i> , 10 seers	..	..	..	0 14 6
	Cotton, 10 ,,	..	..	..	1 2 0
	Maize cobs, 1 maund 20 seers	..	..	..	1 8 0
	Wheat, 1 ,, 8 ,,	..	..	..	1 12 10
	Wheat, 6 bundles @ Rs. -/10/7 per bundle	..	..	..	3 15 6
	<i>Chari</i> , 8 ,, @ Rs. -/3/-	..	..	..	1 8 0
	<i>Senji</i> , 8 ,, @ Rs. -/3/6	..	..	..	1 12 0
					12 8 10
7. <i>Harvesting</i> —for details see Income Statement—				..	19 15 6
8. <i>Winnowing</i> —for details see Income Statement—				..	7 14 5
9. <i>Well and Persian Wheel</i> —					
Repairs	..	..	..	5 0 0	
Share in Persian wheels, Rs. 103/12/2.					
Interest and depreciation at—					
33 % on Rs. 34/10/6, chains	..	..	..	11 7 0	
18 % on Rs. 69/1/8, remainder	..	..	..	12 7 0	
					28 14 0
10. <i>Labour</i> —					
Casual	..	..	..	..	16 1 6
<i>Total Expenditure</i>				..	<u>428 11 9</u>

EXPENDITURE.

Part
IV.
C.

	Total.			Per Acre.		
	Rs.	a.	p.	Rs.	a.	p.
Land Revenue	1	7	3	*0	2	0
Water Rates	28	3	0	*2	7	1
Rent	155	4	0	†13	7	5
Upkeep of Bullocks	135	12	9	11	12	5
Seed	20	3	6	1	12	0
Implements	2	7	0	0	3	5
<i>Kamins</i>	12	8	10	1	1	5
Harvesting	19	15	6	1	11	8
Winnowing	7	14	5	0	11	0
Well and Persian Wheels	28	14	0	2	8	1
Labour	16	1	6	1	6	4
<i>Total</i>	<i>428</i>	<i>11</i>	<i>9</i>	<i>37</i>	<i>2</i>	<i>10</i>

*Actually land revenue (after remission) and water rates were paid at Rs. 1/1/9 and Rs. 5/3/2 per acre, respectively.

†Actually Rs. 17/15/7 per acre area rented.

SUMMARY.

				A. K. M.	
Area held . . . .	..	..	..	11	4 5
Area cropped . . . .	..	..	..	13	6 13
Intensity of cropping . . . .	..	..	..	119.9	per cent.
				Total.	Per acre.
				Rs. a. p.	Rs. a. p.
Gross Income . . . .	..	..	..	429 3 3	37 3 6
Expenditure . . . .	..	..	..	428 3 9	37 2 10
Net Income . . . .	..	..	..	0 7 6	0 0 8

PART V.

Accounts of three holdings under Well-

Irrigation in the Multan District

during the year

1st July 1930 to 30th June 1931.

PART V.

The present accounts are for the third successive year in which accounts of two Holdings A. and B. have been kept. The 1928-29 and 1929-30 records for these farms will be found in publications Nos. 21 and 24 of the Rural Section of the Board of Economic Inquiry, Punjab.* The keeping of regular accounts of Holding C. was started only last year and those which follow are for the year under report.

Part
V.

In the table below a summary of expenses, incomes, and labour performed on these holdings is given :—

Holding.	Area held.	Intensity of cropping.	PER ACRE.			WORKING DAYS PER ACRE.	
			Gross income.	Expenditure.	Net income.	Men.	Bullocks.
	A. K. M.	Per cent.	Rs. a. p.	Rs. a. p.	Rs. a. p.		
A. ..	15 7 0	100.0	21 10 11	18 6 4	3 4 7	27.0	11.0
B. ..	30 0 0	111.5	29 1 3	19 9 1	9 8 2	46.5	23.7
C. ..	29 7 0	97.1	15 6 6	12 4 3	3 2 3	..	..

The labour expended on cultivation in case of Holding B. is very high as compared with Holding A., owing to better cultivation and a higher intensity. In general the standard of cultivation followed by the *zemindars* of this district is very low. The inundation canals this year began to work at the normal time and this has affected the intensities of cropping of all the farms.

Holdings B. and C. were worked by tenants and Holding A. was under direct cultivation. A. and B. engaged permanent labourers but C. did not. After including the wages of the labourers the following table is prepared for comparison :—

Holding.	PER ACRE.		
	Gross income.	Expenditure.	Net income.
	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.	21 10 11	11 5 0	10 5 11
B.	29 1 3	17 12 8	11 4 7
C.	15 6 6	12 4 3	3 2 3

*Ibid. pages 127-43 and 101-15, respectively.

HOLDING A.

Part V. A. The figures given in these accounts are for the third year during which accounts were kept on this holding. The earlier accounts will be found in previous publications.*

This year the total area cultivated was 15 acres, 7 kanals and the whole of the land was irrigated by inundation canal in summer and by a well in winter. The cultivator had a one-third share in the well-water. The intensity of cropping averaged 100 per cent. as against 54.9 per cent. and 99.1 per cent., respectively, for the last two years. As explained in last year's accounts the intensity of cropping is controlled to a large extent by the water supply in the inundation canals. If the canals begin to work in time and the sowing of indigo is possible, the intensity increases. This year's income statement shows that of the 15 acres, 7 kanals cropped $7\frac{1}{4}$ acres were put under indigo, while last year no indigo could be sown. This accounts for the higher intensities of 1930-31 and 1928-29 as compared with that of last year.

The time spent on cultivation averaged 27.0 days of one man and 11.5 days of a pair of bullocks as compared with 26.9 and 14.4 days, respectively, last year. Of the total days, the working of the Persian wheel accounted for 17.2 days of manual and 8.6 days of bullock labour.

The landlord himself did not actually work on the farm and the cultivation was carried on by two permanent labourers—one kept throughout the year and another for 3 months only—under his direct supervision. Casual labour was engaged whenever needed for the harvesting of some of the crops. Cotton pickers received about $\frac{1}{8}$ th share of the total produce and wheat and barley were harvested on the payment of $2\frac{1}{4}$ seers grain of each, per maund. A cash payment of Rs. 6/4/0 was made for harvesting indigo and labour engaged for the manufacture of the dye received Rs. 9/3/0. Winnowing charges for wheat and barley were paid at one seer per maund. The carpenter and the potter were both given 10 seers of cotton and 52 seers of wheat.

In the beginning of the year the cultivator owned two pairs of bullocks, but he sold one bullock for Rs. 30/- after one month and another for Rs. 10/- after two months. Thus after 3 months he was left with one pair only. The cost of upkeep of bullocks came to Rs. 4/12/4 per acre. This is the lowest figure obtained so far on any of the holdings where accounts have been kept, but the bullocks were poor and ill-fed. Fodder crops in summer either failed or gave very poor outturns and thus the cattle had to be taken outside to the indigo fields or waste land for grazing. This accounts for the high figure of labour expended on other work.

As a result of this year's working the net income amounted to Rs. 3/4/7 per acre, after deducting an expenditure of Rs. 18/6/4 from a gross income of Rs. 21/10/11 per acre.

*Ibid. pages 130-36 for 1928-29 and 104-08 for 1929-30.

Labour Sheet showing the number of Days' Work performed by Men and Bullocks throughout the Year.

	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total days.	Days per acre.
Farm cultivation	47.0	29.0	41.0	45.5	2.8	57.5	81.7	39.0	48.0	27.0	9.0	1.5	429.0	27.0
Other work	27.0	31.1	27.1	41.9	34.2	30.9	33.0	46.2	52.5	33.8	33.7	26.2	417.6	26.3
Work done outside .. ..	..	..	3.0	..	6.8	7.5	..	..	..	..	..	..	17.3	..
Bullock cultivation	21.2	7.5	10.1	26.0	1.3	24.7	38.6	19.5	24.0	9.0	7.0	..	188.9	11.9
Bullocks working outside .. ..	..	..	3.0	..	6.8	7.5	..	..	..	..	..	4.0	21.3	..
*Well-irrigation..														
Manual labour .. ..	..	..	15.1	39.0	..	49.5	77.2	39.0	48.0	6.0	..	..	273.8	17.2
Bullock .. ..	..	..	7.6	19.5	..	24.7	38.6	19.5	24.0	3.0	..	..	136.9	8.6

*These items have been included in ' Farm ' and ' Bullock ' Cultivations above.

INCOME.

A. K. M.
Area held—15 7 0

Part.
V.
A.

Crop.	Area.	Outturn.		Rate Per maund.		Value.	
		A. K. M.	Mds. Srs.	Rs. a. p.	Rs. a. p.		
Indigo	7 2 0	1 25	68 8 0	111 5 0			
Cotton	1 4 0	7 25	4 1 0	30 15 8			
Barley	0 0 10	1 20	1 0 0	1 8 0			
Wheat	1 0 0	15 14	1 4 0	19 3 0			
.. -barley <i>bhusa</i> .. ..	..	30 0	0 3 0	5 10 0		
<i>Chari</i>	1 0 0	..	} Per kanal.	2 8 0	20 0 0		
<i>Bajra</i>	1 5 0	..		0 4 0	3 4 0		
<i>Guara</i>	1 1 0	..		0 8 0	4 8 0		
Turnips	1 0 0	..		7 8 0	60 0 0		
Barley	0 1 10	..		7 0 0	10 8 0		
Wheat	1 1 0	..		7 8 0	67 8 0		
<i>Total</i>	15 7 0	..	..	334 5 8	

ADD THE FOLLOWING PAID IN KIND:—

1. <i>Harvesting</i> —				Rs. a. p.	
Cotton, 1 maund .. ..	..	..	..	4 0 0	
Wheat, 36 seers .. ..	..	..	..	1 2 0	
Barley, 3½ „ .. ..	..	..	..	0 1 7	
					5 3 7
2. <i>Winnowing</i> —					
Barley, 1½ seers .. ..	..	..	..	0 0 7	
Wheat, 16¾ „ .. ..	..	..	..	0 8 4	
					0 8 11
3. <i>Kamins</i> —					
Cotton, 10 seers .. ..	..	..	..	1 0 3	
Wheat, 1 maund 12 seers .. ..	..	..	..	1 10 0	
					2 10 3
4. <i>Weighing Charges</i> —					
Wheat, 7 seers .. ..	..	..	..	..	0 3 6
5. <i>Alms, etc.</i>					
Wheat, 1 maund .. ..	..	..	..	..	1 4 0
					<u>344 3 11</u>
				<i>Gross Income</i>	<u>344 3 11</u>

ANALYSIS OF EXPENDITURE.

				Rs.	a.	p.	Rs.	a.	p.	Part V. A.
1.	<i>Land Revenue and Water Rates—</i>									
	Land Revenue	..	..	25	1	0				
	Water Rates	..	..	11	9	6				
							36	10	6	
2.	<i>Upkeep of Bullocks—</i>									
	Bhusa consumed	..	..	41	8	0				
	Green fodders	..	..	165	12	0				
	„ „ received from a tenant	..	..	7	8	0				
	Total fodders	..	..	214	12	0				
	Total adult stock—10½ animals.									
	Bullocks, 2½ animals.									
	Bullock's share of fodders—9/41st			..	47	2	3			
	Concentrates—									
				Rs.	a.	p.				
	Cotton seed	..	..	4	8	0				
	<i>Gur</i>	..	..	0	4	0				
							4	12	0	
	Interest and depreciation at 20 percent. on—									
	Rs. 115/-	..	..	23	0	0				
	Rs. 30/- for one month	..	..	0	8	0				
	Rs. 10/- for 2 months	..	..	0	5	4				
							75	11	7	
3.	<i>Implements (replacements).</i>			..	..	..	1	2	0	
4.	<i>Seeds—</i>									
	Indigo	..	..	7	0	0				
	Cotton	..	..	1	0	0				
	Barley	..	..	0	12	0				
	Wheat	..	..	4	4	0				
	<i>Chari, guara</i>	..	..	4	0	0				
	<i>Bajra</i>	..	..	0	8	0				
	Turnip	..	..	1	6	0				
							18	14	0	
5.	<i>Kamins—</i>									
	Cotton, 10 seers	..	..	1	0	3				
	Wheat, 1 maund 12 seers	..	..	1	10	0				
							2	10	3	
	Carried over			..			135	0	4	

		Brought forward				Rs. a. p.	Rs. a. p.
						..	135 0 4
Part V. A.	6. <i>Harvesting—</i>						
	Kind .. .. .	..	..	..	..	5 3 7	
	Cash .. .. .	..	..	..	..	6 4 0	
							11 7 7
	7. <i>Winnowing—</i>						
	Kind .. .. .	..	..	..	..	0 8 11	
	Cash .. .. .	..	..	..	..	9 3 0	
							9 11 11
	8. <i>Well and Persian Wheel—</i>						
	Interest and depreciation at 15% on Rs. 139/-, cost of the Persian wheel .. .. .	..	..	..	..	20 13 7	
	<i>Mahls</i> , 6 .. .. .	..	..	..	..	6 0 0	
	Repairs .. .. .	..	..	..	..	5 4 0	
	Total .. .. .	..	..	..	..	32 1 7	
	Cultivator's share—1/3rd .. .. .	..	..	..	..	..	10 11 2
	9. <i>Labour—</i>						
	One man @ Rs. 5/- per mensem .. .. .	..	..	..	..	60 0 0	
	„ „ @ Rs. 5/- „ „ for 3 months.. .. .	..	..	..	..	15 0 0	
	Food .. .. .	..	..	..	..	37 8 0	
							112 8 0
	10. <i>Miscellaneous—</i>						
	Grain and <i>bhusa</i> carting .. .. .	..	..	..	..	0 10 0	
	Cleaning of water-courses .. .. .	..	..	..	..	12 0 0	
							12 10 0
	<i>Total Expenditure</i> .. .. .	..	..	..	..	..	<u>292 1 0</u>

EXPENDITURE.

	Total.			Per Acre.		
	Rs.	a.	p.	Rs.	a.	p.
Land Revenue	25	1	0	1	9	3
Water Rates	11	9	6	0	11	8
Upkeep of Bullocks	75	11	7	4	12	4
Implements	1	2	0	0	1	2
Seed	18	14	0	1	3	0
<i>Kamins</i>	2	10	3	0	2	8
Harvesting	11	7	7	0	11	7
Winnowing	9	11	11	0	9	10
Well and Persian Wheel	10	11	2	0	10	9
Labour	112	8	0	7	1	4
Miscellaneous	12	10	0	0	12	9
<i>Total</i>	<i>292</i>	<i>1</i>	<i>0</i>	<i>18</i>	<i>6</i>	<i>4</i>

Part
V.
A.

SUMMARY.

			A. K. M.						
Area held	15	7	0			
„ cropped	15	7	0			
Intensity of cropping	100 per cent.					
			Total.	Per acre.					
			Rs.	a.	p.	Rs.	a.	p.	
Gross income	344	3	11	21	10	11
Expenditure	292	1	0	18	6	4
Net income	52	2	11	3	4	7

HOLDING B.

Part
V.
B. This year, the total area cultivated was 30 *acres* as against 46 *acres*, 4 *kanals* and 16 *marlas* last year.* The land was again taken on the *batai* system but by a new tenant. The conditions were, however, somewhat different and the following special points call for remarks :--

(1). The landlord received a $\frac{2}{5}$ th share of the produce, excepting fodders and *bhusa*, in both harvests.

(2). The green fodders and *bhusa* were mainly fed by the tenant to his cattle. The landlord took only 1 *kanal* of *chari*, half a *kanal* of turnip, $\frac{1}{2}$ *kanal* of wheat and one camel load, seven maunds in weight, of *bhusa*.

(3). The water rates and expenses in connection with cleaning of water channels were borne by the tenant ; the landlord paid the land revenue and silt clearing charges of the minor.

(4). Three-fourths of the barley was taken by the landlord without any division and the seed for this area was supplied by him to the tenant. The rest of the seeds were obtained by the tenant at his own expense.

(5). This year no *malikana* was charged by the landlord, although it is usually charged in case of *batai* in this locality when the landlord takes $\frac{1}{4}$ th share of the produce.

(6). The charges of the watchman, for crops, and the cost of weighing of farm produce, were shared equally by the landlord and tenant.

The *kamins* were paid by the tenant while the chains and buckets of the Persian wheel were also replaced by the tenant without charging the landlord. The expenses in connection with harvesting and winnowing were divided equally between the landlord and tenant.

The intensity of cropping averaged 111·46 per cent. as against 71·62 and 61·98 per cent. during the last two years. This year the tenant cultivated only the good portion of the holding and thus was able to grow two crops on 3 *acres*, 3 *kanals* of land. The labour expended on cultivation averaged 46·5 days of one man and 23·7 days of a pair of bullocks. Of this the working of the Persian wheel alone was responsible for 31·4 and 15·7 days, respectively. This is a very high figure especially when compared with

*For 1928-29 and 1929-30 accounts see pages 137-44 and 109-16, respectively, of the publication concerned.

last year and is due to the higher intensity of cropping practised during the year. The tenants' family could not do the whole work and he engaged a permanent labourer at Rs. 2/- per mensem with food. Part
V.
B.

The cultivation was done by four pairs of bullocks and their upkeep cost only Rs. 9/7/7 per acre.

The cotton picking was performed for a 1/11th share while wheat, barley and gram were harvested by the casual labour at 2¼ seers per maund. For harvesting and threshing of rice the labourers engaged were given four seers per maund (two seers for harvesting and two seers for threshing and winnowing). Wheat, barley and gram were winnowed at one seer per maund.

The *kamins* were paid by the tenant as follows :—

			<i>Carpenter.</i>	<i>Potter.</i>
			<i>Seers.</i>	<i>Seers.</i>
Rice	..	..	15	10
Cotton	..	..	8	8
Wheat	..	..	80	80

Peas failed totally while gram, *bajra* and onions gave poor outturns but all other crops were quite good. The gross income obtained was Rs. 29/1/3 per acre; after deducting the expenses of cultivation, the landlord and the tenant were left with net incomes of Rs. 3/3/8 and Rs. 6/4/6 per acre, respectively.

Labour Sheet showing the number of Days' Work performed by Men and Bullocks throughout the Year.

Part
V.
B.

	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total days.	Days per acre.
Farm cultivation	.. 70.5	88.0	89.5	143.8	150.5	205.5	209.2	108.0	148.3	66.6	73.1	41.2	1,394.2	46.5
Other work	.. ..	35.5	38.9	34.1	17.1	32.5	29.1	35.7	50.4	25.9	13.9	1.5	341.2	..
Work done outside	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	8.0	8.0	..
Bullock cultivation	.. 50.5	40.0	72.5	73.5	76.2	102.7	97.7	48.0	73.1	13.2	33.2	30.8	711.4	23.7
Bullocks working outside	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	8.0	8.0	..
*Well-irrigation...	.. ..	.. ..	48.0	90.0	121.5	205.5	195.8	96.0	146.2	4.5	36.0	..	943.5	31.4

* These items have been included in 'Farm' and 'Bullock' Cultivations above.

INCOME.

Area held—30 acres.

Part
V.
B.

Crop.	Area.	Outturn.		Rate Per maund.		Value.		
		A. K. M.	Mds. Srs.	Rs. a. p.	Rs. a. p.			
Rice	3 3 0	74	10	1 8 0	111 6 0			
„ straw .. ..	.. ..	..	..	..	4 11 0		
Cotton	5 0 0	36	0	4 1 0	146 4 0			
Wheat	10 4 0	130	9	1 4 0	162 12 6			
„ <i>bhusa</i> .. ..	.. ..	215	0	0 3 0	40 5 0		
Barley	0 2 0	4	23	1 0 0	4 9 2			
„ <i>bhusa</i> .. ..	.. ..	5	0	0 2 0	0 10 0		
Gram	2 4 0	2	20	1 8 0	3 12 0			
„ <i>bhusa</i> .. ..	.. ..	2	20	0 4 0	0 10 0		
Onion	0 0 10	1	20	0 8 0	0 12 0			
<i>Chari</i>	4 4 0	..	..	2 8 0	90 0 0		
<i>Bajra</i>	2 0 0	..	..	0 8 0	8 0 0		
Wheat	1 2 0	..	..	10 0 0	100 0 0		
Turnip	3 4 0	..	..	5 0 0	140 0 0		
Peas	0 4 0	..	..	Failed.	..		
<i>Taramira</i> (in turnips)	.. ..	0	16	2 8 0	1 0 0		
<i>Brinjals</i> (in onions)	Consumed in household.						
<i>Total</i>	33 3 10	..	..	..	814 11 8		

ADD THE FOLLOWING PAID IN KIND—

1. <i>Harvesting</i> —				Rs. a. p.	
Rice, 4 maunds 5 seers	..	..	..	6 3 0	
Cotton, 4 „	..	..	..	16 4 0	
Wheat, 7 „ 24 „	..	..	..	9 8 0	
Barley, 8 seers	..	..	..	0 3 2	
Gram, 6 „	..	..	..	0 3 7	
					32 5 9
2. <i>Winnowing</i> —					
Rice, 4 maunds 5 seers	..	..	..	6 3 0	
Wheat, 3 „ 6 „	..	..	..	3 15 0	
Barley, 5 seers	..	..	..	0 2 0	
Gram, 2½ „	..	..	..	0 1 6	
<i>Taramira</i> , 1½ seers	..	..	..	0 1 6	
					10 7 0
3. <i>Kamins</i> —					
Wheat, 5 maunds	..	..	..	..	6 4 0
4. <i>Weighing Charges</i> —					
Wheat, 1 maund 17 seers	..	..	..	1 12 6	
Gram, 2½ seers	..	..	..	0 1 6	
					1 14 0
5. <i>Alms, etc.</i> —					
Wheat, 5 maunds 15 seers	..	..	..	..	6 11 6
<i>Gross Income</i>				..	872 5 11

ANALYSIS OF EXPENDITURE.

Part V. B.				Rs.	a.	p.	Rs.	a.	p.	
1.	<i>Land Revenue and Water Rates—</i>									
	Land Revenue	..	..	..	53	0	0		
	Water Rates	..	..	..	28	13	0		
								81	13	0
2.	<i>Upkeep of Bullocks—</i>									
	Last year's <i>bhusa</i>	..	..	..	50	0	0		
	Present ,, ,,	..	..	..	6	8	0		
	<i>Jowar</i> stalks	..	..	..	20	0	0		
	<i>Chari</i>	..	..	..	87	8	0		
	Wheat	..	..	..	95	0	0		
	Turnips	..	..	..	137	8	0		
	<i>Bajra</i>	..	..	..	8	0	0		
	Total fodders	..	..	..	404	8	0		
	Total adult stock—16½ animals.									
	Bullocks, 8.									
	Bullocks' share of fodder—32/65ths.			..	199	2	3			
	Concentrates—									
	Cotton seed	..	..	Rs. a. p.	1	8	0		
	<i>Gur</i>	..	..	..	0	3	6		
	Milk and sugar	..	..	..	0	5	0		
								2	0	6
	Interest and depreciation at 20% on Rs. 415/-				83	0	0			
								284	2	9
3.	<i>Implements</i>									
	Replacements	2	4	0
4.	<i>Seed—</i>									
	Rice	..	..	..	4	8	0		
	<i>Chari</i>	..	..	..	11	8	0		
	Colton	..	..	..	4	8	0		
	<i>Bajra</i>	..	..	..	0	13	0		
	Wheat	..	..	..	24	0	0		
	Turnips	..	..	..	7	0	0		
	<i>Taramira</i>	..	..	..	0	0	6		
	Barley	..	..	..	0	12	0		
	Gram	..	..	..	2	8	0		
	Peas	..	..	..	0	10	6		
	Onions and <i>brinjals</i>	..	..	..	0	6	0		
								56	10	0
	Carried over			..				424	13	9

				Rs. a. p.	Rs. a. p.	Part V. B.
	Brought forward			..	424 13 9	
5. <i>Kamins</i> —						
	Rice, 25 seers	..	..	0 15 0		
	Cotton, 16 „	..	..	1 10 0		
	Wheat, 4 maunds	..	..	5 0 0		
						7 9 0
6. <i>Harvesting</i> —for details see Income Statement—				..	32 5 9	
7. <i>Winnowing</i> —for details see Income Statement—				..	10 7 0	
8. <i>Well and Persian Wheel</i>						
	Interest and depreciation at 16% on Rs. 130/-, cost of Persian wheel	..	..	20 12 10		
	<i>Mahls</i> , 5 ..	..	..	5 0 0		
	Oil	..	..	0 4 0		
	Repairs	..	..	6 4 0		
						32 4 10
9. <i>Labour</i> —						
	One boy at Rs. 2/- per mensem		..	24 0 0		
	Meals, etc.	..	..	29 4 0		
						53 4 0
10. <i>Miscellaneous</i> —						
	Cleaning of canal minor	..	..	20 0 0		
	„ „ water channels	..	..	4 0 0		
	Watchman	..	..	1 2 0		
	Weighing charges	..	..	1 2 0		
						26 4 0
	<i>Total Expenditure</i>			..	587 0 4	

EXPENDITURE.

Part
V.
B.

	TOTAL.		PER ACRE.		
	Landlord.	Tenant.	Landlord.	Tenant.	Total.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Land Revenue ..	53 0 0	..	1 12 3	..	1 12 3
Water Rates ..	..	28 13 0	..	0 15 4	0 15 4
Upkeep of Bullocks ..	..	284 2 9	..	9 7 7	9 7 7
Implements ..	..	2 4 0	..	0 1 2	0 1 2
Seed ..	0 9 0	56 1 0	0 0 4	1 13 11	1 14 3
<i>Kamins</i> ..	..	7 9 0	..	0 4 1	0 4 1
Harvesting ..	16 2 10	16 2 11	0 8 8	0 8 8	1 1 4
Winnowing ..	5 3 6	5 3 6	0 2 9	0 2 9	0 5 6
Well and Persian Wheel ..	20 12 10	11 8 0	0 11 1	0 6 1	1 1 2
Labour ..	..	53 4 0	..	1 12 5	1 12 5
Miscellaneous ..	21 2 0	5 2 0	0 11 3	0 2 9	0 14 0
<i>Total</i> ..	<i>116 14 2</i>	<i>470 2 2</i>	<i>3 14 4</i>	<i>15 10 9</i>	<i>19 9 1</i>

SUMMARY.

A. K. M.

Area held ..	..	..	..	30 0 0
Area cropped ..	..	..	..	33 3 10
Intensity of cropping ..	..	..	..	111.46 per cent.

	TOTAL.			PER ACRE.		
	Gross income.	Expenditure.	Net income.	Gross income.	Expenditure.	Net income.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Landlord ..	213 12 5	116 14 2	96 14 3	7 2 0	3 14 4	3 3 8
Tenant ..	658 9 6	470 2 2	188 7 4	21 15 3	15 10 9	6 4 6
<i>Total</i> ..	<i>872 5 11</i>	<i>587 0 4</i>	<i>285 5 7</i>	<i>29 1 3</i>	<i>19 9 1</i>	<i>9 8 2</i>

HOLDING C.

Accounts have not hitherto been kept on this holding. It is situated in the Multan District, at a distance of 5 miles from Buch—the nearest railway station. The total area cultivated was 29 acres, 7 kanals; the land is irrigated by inundation canal in summer and well in winter. Part
V.
C.

It was farmed for the landlord by a tenant. The landlord took *half-batai* from the tenant in case of all the crops except *bhusa* and green fodder, and shared equally with him the expenditure of *kamins*, harvesting and winnowing. The tenant bore the whole cost of upkeep of bullocks, seeds and implements. Land revenue was paid by the landlord and water rates by the tenant. A wooden Persian wheel costing Rs. 115/4/0, exclusive of the *mahl*, was used for raising water. This was put up on the well by the landlord without charging anything from the tenant. During the year three *mahls* costing Rs. 3/- were used on the well and earthenware pots were supplied by the potter whose charges have been included in the *kamins'* expenses. The cost of the *mahls* and buckets was borne by the tenant. The landlord has stationed a *kardar* or Manager on the spot who manages several holdings; his wages are borne by the tenants; they are calculated at one seer per maund of grains after deducting the winnowing and *kamins'* expenses in kind, from the total yields.

As already mentioned above, green fodders and *bhusa* are not divided equally between the landlord and tenant, but are mainly consumed by the latter. The landlord took only two camel-loads of *bhusa*, 14 maunds in weight, and one *kanal* of wheat. This year the water supply in the inundation canal was not good particularly about the closing time in September. Had it not been so, the landlord would have taken one *kanal* of fodder, each in *kharif* and *rabi*.

The *kamins'* dues were paid at the following rates :—

			Carpenter.	Potter.
			Seers.	Seers.
Wheat	..	..	120	120
Cotton	..	..	4	4
			Bundles.	Bundles.
Wheat	..	..	2	2
<i>Chari</i>	..	..	2	1
<i>Methe</i>	..	..	1	1

The cost of upkeep of bullocks is very low, only Rs. 7/6/8 per acre. This is partly due to the fact that no grains were fed to the working bullocks during the year and their quality was also poor, the six bullocks being valued at only Rs. 377/-.

Part Three able-bodied members of the tenant's family worked on
V. the holding and the intensity of cropping averaged 99·1 per cent.
C. Harvesting of wheat and picking of cotton were done by casual labour at 1/20th and 1/10th shares of the total produce, respectively. For winnowing wheat, payment was made at the rate of one seer per maund.

The tenant grew only cotton and wheat in addition to fodders. The general standard of cultivation followed is very poor as may be seen from the low yields of different crops and the income of the holding. A gross income of Rs. 15/6/6 per acre only was obtained while after deducting the expenses of cultivation, the landlord and the tenant were left with Rs. 1/7/5 and Rs. 1/10/10, respectively, as their net incomes.

INCOME.

A. K. M.
Area held—29 7 0

Part
V.
C.

Crop.	Area.	Outturn.			Rate per maund.	Value.
	A. K. M.	Mds.	Srs.	Ch.	Rs. a. p.	Rs. a. p.
Cotton ..	7 4 0	11	22	8	4 8 0	52 0 6
Wheat ..	11 2 0	81	7	0	1 3 9	100 3 2
„ <i>bhusa</i> ..	..	115	0	0	0 3 0	21 9 0
<i>Chari</i> ..	1 4 0	..	..	..	1 8 0	18 0 0
„ <i>guara</i> ..	1 4 0	..	..	..	4 0 0	48 0 0
<i>Chari</i> ..	0 7 0	..	..	..	3 0 0	21 0 0
<i>Methe, sarson</i> ..	4 2 0	..	..	..	3 8 0	119 0 0
<i>Maina</i> ..	1 0 0	..	..	..	4 0 0	32 0 0
Wheat ..	0 6 0	..	..	..	3 8 0	21 0 0
Coriander ..	0 3 0	..	..	..	Failed.	..
<i>Total</i> ..	29 0 0	..	..	..	..	432 12 8

ADD THE FOLLOWING PAID IN KIND—

1. <i>Harvesting</i> —					Rs. a. p.
Cotton, 1 maund 6¼ seers ..	..	..	..	..	5 3 3
Wheat, 4 „ 26 „ ..	..	..	..	..	5 11 10

					10 15 1
2. <i>Winnowing</i> —					
Wheat, 2 maunds 13 seers ..	..	..	..	..	2 13 11
3. <i>Kamins</i> —					
Cotton, 12 seers ..	..	..	..	..	1 5 7
Wheat, 6 maunds 30 seers ..	..	..	..	..	8 5 4
„ , 4 bundles @ Rs. 0/2/4 per bundle..	..	..	..	..	0 9 4

					10 4 3
4. <i>Alms, etc.</i> —					
Wheat, 2 maunds 30 seers ..	..	..	..	..	3 6 4

					3 6 4

					460 4 3

Gross Income ..

460 4 3

ANALYSIS OF EXPENDITURE.

		Rs. a. p.			Rs. a. p.			
Part V: C.	1. Land Revenue and Water Rates—							
	Land Revenue	..	..	..	25	0	3
	Water Rates	..	..	..	11	15	0
					-----		36 15 3	
	2. Upkeep of Bullocks—							
	Bhusa consumed	..	..	..	77	4	0
	Green fodders	..	..	..	259	0	0
	Total fodders	..	..	..	-----	336	4 0
	Total adult stock—14 animals							
	Bullocks—6							
	Bullocks' share of fodders—3/7ths	..	..	..	144	1	9
	Interest and depreciation @ 20% on Rs. 377/-				75	6	5	
	Salt	..	..	..	2	0	0
					-----		221 8 2	
	3. Implements—							
	Interest and depreciation at 18 per cent. on Rs. 10/-, roller				1 12 10
	Repairs and spares	..	..	..	3	8	0
					-----		5 4 10	
	4. Seeds—							
	Chari, guara	..	..	..	7	6	9
	Cotton	..	..	..	6	0	0
	Mathe	..	..	..	5	0	0
	Sarson	..	..	..	1	2	0
	Wheat	..	..	..	29	11	3
	Coriander	..	..	..	0	2	6
					-----		49 6 6	
	5. Kamins—							
	Wheat, 6 maunds	..	..	..	7	6	6
	Cotton, 8 seers	..	..	..	0	14	5
	Chari, 3 bundles @ Rs. -/3/- per bundle	..	..	..	0	9	0
	Mathe, 2 ,, @ Rs. -/3/6 ,,	..	..	..	0	7	0
	Wheat, 4 ,, @ Rs. -/2/4 ,,	..	..	..	0	9	4
					-----		9 14 3	
	Carried over				..			323 1 0

			Rs. a. p.	Rs. a. p.	Part
	Brought forward	..	..	323 1 0	V. 0.
6.	<i>Harvesting</i> —for details see Income Statement—	..	..	10 15 1	
7.	<i>Winnowing</i> —for details see Income Statement—	..	..	2 13 11	
8.	<i>Well and Persian Wheel</i> —				
	Interest and depreciation at—				
	28 % on Rs. 26/4/-	..	..	7 5 7	
	16 % on Rs. 89/-	..	..	14 3 10	
	<i>Mahls</i> , 3	..	..	3 0 0	
	Oil	..	..	1 1 0	
					25 10 5
9.	<i>Management</i> —				
	Cotton, 12 seers	..	..	1 5 7	
	Wheat, 2 maunds 1 seer	..	..	2 8 0	
					3 13 7
	<i>Total Expenditure</i>	..	..	<u>366 6 0</u>	

EXPENDITURE.Part
V.
C.

	TOTAL.				PER ACRE.					
	Landlord.		Tenant.		Landlord.		Tenant.		Total.	
	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.
Land Revenue ..	25	0 3	..	..	0	13 5	..	..	0	13 5
Water Rates ..	..	..	11	15 0	..	..	0	6 5	0	6 5
Upkeep of Bullocks ..	..	..	221	8 2	..	..	7	6 8	7	6 8
Implements ..	..	..	5	4 10	..	..	0	2 10	0	2 10
Seed ..	..	..	49	6 6	..	..	1	10 5	1	10 5
<i>Kamins</i> ..	4	15 2	4	15 1	0	2 8	0	2 8	0	5 4
Harvesting ..	5	7 6	5	7 7	0	2 11	0	2 11	0	5 10
Winnowing ..	1	6 11	1	7 0	0	0 9	0	0 9	0	1 6
Well and Persian Wheel.	21	9 5	4	1 0	0	11 7	0	2 2	0	13 9
Management ..	..	..	3	13 7	..	..	0	2 1	0	2 1
<i>Total</i> ..	<i>58</i>	<i>7 3</i>	<i>307</i>	<i>14 9</i>	<i>1</i>	<i>15 4</i>	<i>10</i>	<i>4 11</i>	<i>12</i>	<i>4 3</i>

SUMMARY.

Area held ..	..	..	29	7 0
Area cropped ..	..	..	29	0 0
Intensity of cropping ..	..	..	97.1	per cent.

	TOTAL.					
	Gross income.		Expenditure.		Net income.	
	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.
Landlord ..	102	3 1	58	7 3	43	11 10
Tenant ..	358	1 2	307	14 9	50	2 5
<i>Total</i> ..	<i>460</i>	<i>4 3</i>	<i>3366</i>	<i>6 0</i>	<i>93</i>	<i>14 3</i>

		Gross income.		Expenditure.		Net income.	
Rs.	a. p.	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.
Landlord ..	3	6 9	1	15 4	1	7 5	
Tenant ..	11	15 9	10	4 11	1	10 10	
<i>Total</i> ..	<i>15</i>	<i>6 6</i>	<i>12</i>	<i>4 3</i>	<i>3</i>	<i>2 3</i>	

PART VI.

Accounts of three holdings under Well-

Irrigation in the Rohtak District

during the year

1st July 1930 to 30th June 1931.

PART VI.

The present accounts are for the third successive year in which the accounts of these holdings have been kept. The earlier records will be found in Parts VI. of the accounts for 1928-29 and 1929-30.* During this year no accounts were kept on Holding C. The areas cultivated by the farmers were as follows :—

Holding.	Irrigated.	<i>Barani.</i>		Total.
		A. K. M.	A. K. M.	A. K. M.
A. ..	10 3 6	0 7 10	11 2 16	
B. ..	7 1 15	4 4 1	11 5 16	
D. ..	10 3 8	5 5 0	16 0 8	

The net result of the year's working shows the following :—

Holding.	Area held.	Intensity of cropping.	PER ACRE.			WORKING DAYS PER ACRE.	
			Gross income.	Expenditure.	Net income.	Men.	Bullocks.
	A. K. M.	Per cent.	Rs. a. p.	Rs. a. p.	Rs. a. p.		
A. ..	11 2 16	107·3	37 15 6	42 5 5	4 5 11	54·6	20·6
B. ..	11 5 16	121·7	60 6 2	40 8 8	19 13 6	56·1	23·9
D. ..	16 0 8	126·8	42 7 1	37 0 7	5 6 6	48·4	24·3

From the foregoing table we can only study the positions of individual farmers, who have been cultivating these farms under a variety of conditions. Cultivator A. engaged a *siri* labourer to carry on the cultivation; he took no land on rent. Cultivator B. engaged no permanent labour though he incurred some expense on casual labour. His own land did not suffice for his needs, consequently he rented a further area. It was all his own land that farmer D. cultivated, but as his family could not do all the work he kept a permanent labourer throughout the year. Thus it is necessary to reduce all of these holdings to similar conditions before a proper comparison can be made. Accordingly, after

* *Ibid.* pages 145-74 and 117-47, respectively.

Part VI. omitting the rent and labour paid for a part of the holdings, and including full land revenue payable, the following table is prepared :—

Farm.	Area held.	Intensity of cropping.	PER ACRE.			WORKING DAYS PER ACRE.	
			Gross income.	Expenditure.	Net income.	Men.	Bullocks.
	A. K. M.	Per cent.	Rs. a. p.	Rs. a. p.	Rs. a. p.		
A. ..	11 2 16	107·3	37 15 6	35 7 8	2 7 10	54·6	20·6
B. ..	11 5 16	121·7	60 6 2	33 3 8	27 2 6	56·1	23·9
D. ..	16 0 8	126·8	42 7 1	32 1 10	10 5 3	48·4	24·3

It will be seen that there is not much difference between the expenses of cultivation of the three farms. Farmer B. secured the highest income by growing about $1\frac{1}{2}$ acres of chillies, which provided about Rs. 23/- per acre of the gross income.

HOLDING A.

The cultivator of this holding has been maintaining the record of income, expenditure and labour on his farm for the last three years. The following pages deal with the year 1930-31; the accounts for 1928-29 and 1929-30 will be found in previous publications.*

Part
VI.
A.

Total area cultivated was 11 *acres*, 2 *kanals* and 16 *marlas*—exactly the same as last year, and it all belonged to the farmer; 7 *kanals* and 10 *marlas* were unirrigated and the rest was irrigated by three wells.

A *siri* labourer was engaged by the cultivator to assist him in his work; he was paid 1/4th of the gross produce excepting *bhusa*, together with green and dry fodders. The *siri* or partner paid 1/4th of the land revenue. Net expenses on labour were Rs. 77/14/1; and this is one-half of what it has been in previous years.

The time spent on cultivation averaged 54·6 days of one man and 20·6 days of a pair of bullocks per acre as against 51·8 and 24·4 days, respectively, for last year. The intensity of cropping was 107·3 per cent. while in the previous two years it was 108·2 and 145 per cent., respectively.

Payments made to the carpenter, blacksmith and shoemaker were as follows:—

		Carpenter.	Blacksmith.	Shoemaker.
		<i>Seers.</i>	<i>Seers.</i>	<i>Seers.</i>
<i>Bajra</i>	..	22½	20	20
Wheat	..	22½	20	60
., <i>bhusa</i>	..	40	40	40
		<i>Bundles.</i>	<i>Bundles.</i>	<i>Bundles.</i>
<i>Chari</i>	..	1	1	1
<i>Methé</i>	..	1	2	1

The total charges came to Rs. 11/5/0 as against Rs. 31/1/0 last year. The shoemaker was often ill and was not so helpful, so his rate of payment was lower than in previous years.

Two bullocks were kept for cultivation work throughout the year and their total cost of upkeep was Rs. 252/12/4. This works out to Rs. 22/4/4 per acre as against Rs. 38/6/6 in 1929-30.

* *Ibid.* pages 149-55 and 121-27, respectively.

Part
VI.
A. Manure worth Rs. 7/- was bought and applied to the land, some was also collected from a field, (where a family of criminal tribes had stayed for sometime), and put on the land.

No hired labour was engaged for the picking of cotton as it was done by the family members. For the plucking of chillies and heads of *bajra* and *jowar*, labour was engaged and given 1/12th and 1/10th shares, respectively. Wheat harvesting was done at the same rate as last year by casual labour : 25 bundles were paid in all ; a bundle yielded 2 seers of grain and $2\frac{1}{2}$ seers of *bhusa*.

This year in the *khurif* season swarms of locusts visited the village, but fortunately the campaign launched by the whole village against the pest was strong enough to keep it under control and save the crops from damage. The season this year was very dry ; a heavy rainfall of 8 inches in July being followed by an almost entirely dry period ; only 2.05 inches of rain fell from 1st October, 1930, to 30th June, 1931. This affected the yields of crops and particularly those of the *khurif* season, adversely. The *pyrilla* attack on sugarcane was also very severe and is responsible for the poor outturn. Low yields of some crops coupled with a heavy fall in the prices of agricultural produce reduced the gross income very materially as it is only Rs. 37/15/6 per acre as against Rs. 56/9/1 and Rs. 78/6/10, respectively, during the last two years. Thus the cultivator suffered a loss of Rs. 4/5/11 per acre, in spite of a remission of five annas per rupee in the land revenue.

Labour Sheet showing the number of Days' Work performed by Men and Bullocks throughout the Year.

Part.
VI.
A.

	Month												Total days.	Days per acre.
	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.		
Farm cultivation ..	48.0	46.4	65.7	83.3	43.8	46.8	48.8	59.8	42.0	54.2	34.8	46.4	620.0	54.6
Other work ..	10.0	4.0	2.5	..	1.3	3.0	..	..	17.5	2.5	25.2	1.0	67.0	..
Bullock cultivation ..	25.0	18.4	18.3	33.2	26.2	2.4	14.2	26.7	22.6	12.5	12.3	22.4	234.2	20.6
Other employment ..	..	..	..	..	1.3	1.0	..	..	3.7	1.3	2.5	..	9.8	..
* Well-irrigation ..	6.0	10.8	16.2	28.2	25.8	40.8	24.6	53.4	34.8	7.5	11.7	8.2	268.0	23.6
{ Manual labour ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
{ Bullock ..	3.0	5.4	8.1	14.1	12.9	20.4	12.3	26.7	17.4	3.8	5.9	4.1	134.1	11.8

*These items have been included in 'Farm' and 'Bullock' Cultivations above.

INCOME.

A. K. M.

Area held—11 2 16

Part VI. A.	Crop.	Area.		Outturn.		Rate per maund.		Value.		
		A.	K. M.	Mds.	Srs.	Rs. a.	p.	Rs. a.	p.	
	Cotton ..	0	2 10	3	7	4	8 0	14	4 7	
	„ sticks ..	..	..	..	..	..	..	2	0 0
	Chillies ..	0	4 3	30	0	1	9 6	47	13 0	
	Sugarcane (<i>gur</i>) ..	0	4 3	1	24	3	10 3	5	13 2	
	<i>China</i> ..	0	3 7	4	15	1	8 0	6	9 0	
	<i>Bajra</i> ..	0	5 0	5	0	2	0 0	10	0 0	
	<i>Jowar</i> ..	2	7 7	2	10	1	9 6	3	9 5	
	<i>Bajra</i> stalks ..	320	bundles	(@ Rs. 2/- per 100 bundles.				6	6 5	
	<i>Jowar</i> „ ..	1,150	„	(@ Rs. 3/-				34	8 0	
	Wheat ..	4	6 6	84	17	2	0 0	168	13 7	
	„ <i>bhusa</i> ..	..	..	130	0	0	5 0	40	10 0
	<i>Guara</i> ..	0	6 13	Per karal. {	3	9 9	24	0 0
	<i>Chari</i> ..	0	3 7		4	12 0	15	14 7
	<i>Methe</i> ..	0	2 10		3	9 9	9	0 5
	„ ..	0	4 3		3	13 7	15	15 7
	Total ..	12	1 9	..	..	..	..	405	5 9

ADD THE FOLLOWING PAID IN KIND—

1. <i>Harvesting</i> —		Rs. a. p.
Chillies, 2 mds. 29 seers 1 chhatak..		4 5 7
<i>Jowar</i> , 10 seers		0 6 5
<i>Bajra</i> , 22½ „		1 1 9
Wheat, 25 bundles @ Rs. -/2/-per bundle		3 2 0
		8 15 9
2. <i>Kamins</i> —		
Wheat, 4 mds. 19½ seers		8 15 7
<i>Bajra</i> , 2 „ 17½ „		4 14 0
Wheat <i>bhusa</i> , 4 mds.		1 4 0
<i>Chari</i> , 4 bundles		0 12 0
<i>Methe</i> , 4 „		0 12 0
		16 9 7
	Gross Income ..	430 15 1

ANALYSIS OF EXPENDITURE.

				Rs. a. p.	Rs. a. p.	Part
						VI.
						A.
1.	<i>Land Revenue</i> —					
	<i>Kharif</i>	..	..	17 10 6		
	<i>Rabi</i>	..	..	8 9 3		
				-----	26 3 9	
2.	<i>Upkeep of Bullocks</i> —					
	Last year's <i>bhusa</i>	..	..	94 6 0		
	Surplus at the end of year	..	..	12 8 0		

	<i>Bhusa fed</i>	..	..	81 14 0		
	Green fodder	..	..	64 14 8		
	<i>Jowar</i> and <i>bajra</i> stalks..	..	..	40 14 5		
	Grass	..	..	36 4 0		

	Total fodders	..		223 15 1		

	Total adult stock—3 ⁵ / ₁₂ animals					
	Number of bullocks—2					
	Bullocks' share of fodders—24/41st			..	136 15 1	
	Concentrates—					
	Oil cakes	..	..	11 5 3		
	Gram	..	..	28 6 3		
	<i>Guara</i>	..	..	21 9 9		
	Salt	..	..	1 8 0		
	Interest and depreciation @ 20% on R. 255/-..			51 0 0		
	Shoeing the bullocks			2 0 0		
				-----	252 12 4	
3.	<i>Seed</i> —					
	<i>Bajra</i>	..	..	0 4 0		
	<i>Jowar</i>	..	..	4 0 0		
	Chillies	..	..	4 0 0		
	Cotton	..	..	0 4 0		
	Sugarcane	..	..	6 0 0		
	Wheat	..	..	15 0 0		
	<i>Guara</i>	..	..	0 8 0		
	<i>Methe</i>	..	..	2 0 0		
	<i>China</i>	..	..	0 2 0		
				-----	32 2 0	
4.	<i>Kamins</i> —					
	<i>Bajra</i> , 1 maund, 22 ¹ / ₂ seers	..	..	3 2 0		
	Wheat, 3 ,, 2 ¹ / ₂ ,,	..	..	6 2 0		
	Wheat <i>bhusa</i> , 3 maunds	..	..	0 15 0		
	<i>Chari</i> , 3 bundles	..	..	0 9 0		
	<i>Methe</i> , 3 ,,	..	..	0 9 0		
				-----	11 5 0	

	Carried over	..			322 7 1	

				Rs. a. p.	Rs. a. p.
Brought forward				..	322 7 1
Part VI.	5.	Harvesting—for details see Income Statement—		..	8 15 9
A.	6.	Manure—		.. ..	7 0 0
	7.	Labour ($\frac{1}{4}$ th share)—			
		<i>Bajra</i>	.. ..	2 8 0	
		<i>Jowar</i>	.. ..	0 14 7	
		Chillies	.. ..	11 15 3	
		Cotton	.. ..	3 9 2	
		Sugarcane	.. ..	1 7 4	
		Wheat	.. ..	42 3 5	
		<i>China</i>	.. ..	1 10 3	
		Total	.. ..	64 4 0	
		Less $\frac{1}{4}$ land revenue paid	..	6 8 11	
		Remainder	.. ..	57 11 1	
		Casual labour	.. ..	20 3 0	
					77 14 1
	8.	<i>Implements—</i>			
		Replacements	.. ..	2 12 0	
		Interest and depreciation (@ 20% on Rs. 132/-, cart	26 6 5		
					29 2 5
	9.	<i>Persian Wheel—</i>			
		Replacements and repairs	.. ..	5 14 8	
		Interest and depreciation at—			
		33% on Rs. 42/14/2, share in chains	..	14 2 5	
		18% on Rs. 72/5/10, share in remainder	..	13 0 5	
		Oil	.. ..	2 0 0	
					35 1 6
		<i>Total Expenditure</i>	..		<u>480 8 10</u>

EXPENDITURE.

Part
VI.
A.

				Total.	Per Acre.
				Rs. a. p.	Rs. a. p.
Land Revenue	..	..	..	26 3 9	2 5 0
Upkeep of Bullocks	..	..	..	252 12 4	22 4 4
Seed	..	..	..	32 2 0	2 13 4
<i>Kamins</i>	..	..	..	11 5 0	0 15 11
Harvesting	..	..	..	8 15 9	0 12 8
Manure	..	..	..	7 0 0	0 9 10
Labour	..	..	..	77 14 1	6 13 9
Implements	..	..	..	29 2 5	2 9 1
Persian Wheels	..	..	..	35 1 6	3 1 6
<i>Total</i>	..	..	..	480 8 10	42 5 5

SUMMARY.

			A. K. M.
Area held	..		11 2 16
Area cropped	..		12 1 9
Intensity of cropping	..		107.3 per cent.
			Total Per acre.
			Rs. a. p. Rs. a. p.
Gross income	..	..	430 15 1 37 15 6
Expenditure	..	..	480 8 10 42 5 5
<i>Net loss</i>	..	..	50 6 3 -4 5 11

HOLDING B.

Part VI. B. The earlier accounts of this farm will be found on pages 156-62 and 128-34, respectively, of the two preceding publications in this series. The cultivator owned 8 *acres*, 4 *kanals* and 6 *marlas* of land and rented a further area of 3 *acres*, 1 *kanal* and 10 *marlas*, thus making 11 *acres*, 5 *kanals* and 16 *marlas* as the total area cultivated. The total cash rent, including the water charges paid for using a well in which the cultivator possessed no share, was Rs. 73/- which works out at Rs. 22/14/5 per acre. Of the land taken on rent, about an acre received no water from any of the wells, consequently the cultivator had to bear no water charges for this area. Usually the charges for water are Re. 1/- per *bigha* or Rs. 4/12/10 per acre. Out of the total cultivated area 4 *acres*, 4 *kanals* and 1 *marla* were unirrigated; the rest was *chahi*.

There were three able-bodied men who worked on the farm. From the labour sheet it will be seen that the work done in connection with cultivation during the year was equivalent to 56·1 days of one man and 33·9 days of a pair of bullocks per acre of holding. Similar figures for last year were 58·1 and 24·3 days, respectively.

During the last two years for which accounts have been kept female members of the family have not been helping the farmer in the cultivation of the farm; but this year, in order to reduce the expenses of cultivation as far as possible, they helped in field work such as the harvesting of chillies, plucking of heads of *jowar* and *bagra*, picking of cotton, taking out of maize cobs, etc.

The intensity of cropping averaged 121·7 per cent. as against 123·0 and 121·6 per cent. during the last two years. Two *acres*, 5 *kanals* and 8 *marlas* were double cropped.

Casual labour was employed as usual whenever required during the year. The total expenses under this head were Rs. 19/4/0. Cotton was picked by the female members of the family and the chillies were plucked by casual labour at a 1/15th share. Labourers engaged during the wheat harvest were given 75 bundles. Some of the maize cobs were taken out by the labourers at a 1/20th share.

Payments made in kind to carpenter, blacksmith, and shoemaker were worth Rs. 16/13/0; last year the charges were Rs. 28/13/8: the low prices of the produce have brought down this figure. It will be seen from the Analysis of Expenditure Statement that the shoemaker is also included in the *kamins*; he helped the farmer in hoeing and in the interculture of crops, *bund*-making, threshing and winnowing of wheat; he also supplied leather straps, etc., for the bullocks.

No manure was bought, that of the farm being utilised.

A special feature worth mentioning is that the system of cane-crushing was changed a little this year. Unlike last year, the canes of one man were stripped and crushed and the *gur* obtained was given to the owner ; the turns were decided by lots as usual. Boiling pans and a cane-crushing mill were taken on hire at Rs. 12/- for the season and *gur* worth Rs. 16/10/8 was collected and sold to meet the expenses. Miscellaneous expenses were Rs. 4/10/8, leaving Rs. 12/- for *velna* hire. The sugarcane crop was very poor owing to an attack of *pyrilla* and the continuous dry season. The quality of juice was also poor : a pot of it yielded only 1½ *bhelis* (6 seers) of *gur* as compared with 2 *bhelis* (8 seers) in previous years.

The cultivator possessed four bullocks at the beginning of the year, but after two months one bullock was sold for Rs. 24/-. The value of the remaining three bullocks with which cultivation work was carried on, was Rs. 185/-. The total cost of their upkeep was Rs. 19/4/10 per acre.

The gross income derived from this holding is Rs. 60/6/2 per acre, which is about Rs. 30/- less than that of last year. This very great falling off in income is caused in the first place by the considerable drop in prices and secondly by the poor yields of *jowar*, sugarcane and maize. About 1½ acres of gram also failed completely. The expenses of cultivation were Rs. 40/8/8, leaving a net income of Rs. 19/13/6 per acre. This cultivator has increased his income by growing chillies. His neighbour, Cultivator A., two miles away with a similar holding, sustained a loss of Rs. 4/5/11 per acre.

Labour Sheet showing the number of Days' Work performed by Men and Bullocks throughout the Year.

	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total days.	Days per acre.
Farm cultivation	66.9	44.3	40.4	92.5	46.7	85.1	68.7	53.7	48.6	39.4	32.1	39.6	658.0	56.1
Other work	27.2	4.7	28.5	7.3	10.2	6.2	1.0	2.0	..	..	29.0	1.5	117.6	..
Work done outside .. ..	..	..	..	..	..	..	6.4	2.0	..	..	..	..	8.4	..
Bullock cultivation	11.7	20.0	14.6	37.6	26.3	29.6	34.9	27.1	26.6	15.2	20.0	16.6	280.2	23.9
Other employment .. ..	..	..	..	3.0	3.8	1.1	..	1.0	..	..	1.8	..	10.7	..
Bullocks working outside .. ..	..	..	..	..	..	..	2.4	1.0	..	..	..	..	3.4	..
*Well-irrigation .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
{ Manual labour	8.4	16.2	30.3	45.6	40.8	57.6	62.4	49.2	39.6	..	2.0	15.2	367.3	31.3
{ Bullock "	4.2	8.1	15.1	22.8	20.4	28.8	31.2	24.6	19.8	..	1.0	7.6	183.6	15.7

* These items have been included in ' Farm ' and ' Bullock ' Cultivations above.

INCOME.

A. K. M.
Area held—11 5 16Part
VI.
B.

Crop.	Area.	Outturn.	Rate per maund.	Value.
		A. K. M.	Mds. Srs.	Rs. a. p.
Cotton	0 3 10	4 10	4 8 0	19 2 0
„ sticks .. ..	..	..	..	2 0 0
Chillies	0 7 2	85 0	2 0 0	170 0 0
„ (Patna)	0 4 3	38 0	2 10 9	101 8 6
Sugarcane (<i>gur</i>) ..	0 4 5	5 16	3 5 3	17 15 7
Maize	0 6 13	8 0	2 0 0	16 0 0
„ stalks	350 bundles @ Rs. 3/ per 100 bundles.			10 8 0
Jowar	1 3 11	3 0	2 0 0	6 0 0
„ stalks	850 bundles @ Rs. 4/- per 100 bundles.			34 0 0
Wheat	4 5 15	80 20	1 12 6	143 6 3
„ <i>bhusa</i> .. ..	..	125 0	0 5 0	39 1 0
Bajra	0 5 10	7 0	2 0 0	14 0 0
„ stalks	450 bundles @ Rs. 2/- per 100 bundles.			9 0 0
Methe	0 6 8	8 0	2 8 0	20 0 0
Gram	1 4 15	Failed.	..	..
Taramira (ingram)..	..	0 15	3 5 4	1 4 0
Urd (in cotton) ..	..	0 10	3 0 0	0 12 0
San (in cotton) ..	..	0 10	8 0 0	2 0 0
Sarson (in wheat) ..	..	..	..	5 0 0
Chari	0 6 5	..	Per kanal. { 5 0 0 3 0 0	31 4 0
Methe	1 0 7	..		25 0 10
Total	14 2 4	..	..	667 14 2

(Continued).

	Rs. a. p.	Rs. a. p.
Brought forward	..	667 14 2

Part ADD THE FOLLOWING PAID IN KIND :—

VI.

B. 1. *Harvesting*—

Chillies 6 maunds 3 seers	12 2 5	
,, (<i>Patna</i>), 2 maunds 30 seers	7 5 7	
<i>Jowar</i> , 6 seers	0 4 10	
<i>Bajra</i> , 4 ,,	0 3 2	
Maize, 17 ,,	0 13 7	
<i>Gur</i> to <i>jhoka</i> and <i>pakawa</i> , 10 seers	0 13 4	
Wheat, 75 bundles @ Rs. -/1/- per bundle	4 11 0	
<i>Gur</i> , (cane crushing mill hire), 12 seers	1 0 0	
		27 5 11

2. *Kamins*—

<i>Jowar</i> , 15 seers	0 12 0	
Maize, 20 ,,	1 0 0	
<i>Bajra</i> , 12½ ,,	0 10 0	
Wheat, 2½ maunds	4 7 3	
,, <i>bhusa</i> , 13½ maunds	4 3 6	
<i>Chari</i> , 8 bundles @ Rs. -/2/- per bundle	1 0 0	
<i>Methe</i> , 8 ,, @ Rs. -/1/ 6 ,,	0 12 0	
		12 12 9
<i>Gross Income</i>		<u>708 0 10</u>

ANALYSIS OF EXPENDITURE.

				Rs.	a.	p.	Rs.	a.	p.	Part
1. Land Revenue—	..	..	..	..	..		28	10	3	VI. B.
2. Rent—	..	..	..	..	..		73	0	0	
3. Upkeep of Bullocks—										
Last year's <i>bhusa</i>	..	..	..	105	10	0				
Surplus at the end of year	..	..	..	24	6	0				
<i>Bhusa</i> fed	..	..	..	81	4	0				
Jowar, maize and <i>bajra</i> stalks	..	..	..	53	8	0				
Green fodder	..	..	..	56	4	10				
<i>Sarson</i>	..	..	..	5	0	0				
Grass	..	..	..	18	12	0				
Sugarcane heads	..	..	..	8	12	0				
			Total fodders	..	223	8 10				
Total adult stock—6½ animals.										
Number of bullocks—3¼.										
Bullocks' share of fodders—19/39ths										
			..	108	14	7				
Concentrates										
Oil cakes	..	..	..	9	0	0				
Gram, crushed	..	..	..	8	0	0				
<i>Guara</i>	..	..	..	36	0	0				
Wheat flour	..	..	..	8	0	0				
<i>Gur</i>	..	..	..	0	12	0				
<i>Ghi</i>	..	..	..	13	0	0				
Oil	..	..	..	3	0	0				
Salt	..	..	..	0	6	0				
Interest and depreciation at 20 % on—										
Rs. 185/-	..	..	..	37	0	0				
Rs. 24/- for 2 months	..	..	..	0	12	10				
Shoeing of bullocks	..	..	..	1	8	0				
							226	5	5	
4. Seed—										
Chillies	..	..	..	2	0	0				
Cotton	..	..	..	0	4	0				
<i>Bajra</i>	..	..	..	0	8	0				
Jowar	..	..	..	5	0	0				
Sugarcane	..	..	..	10	0	0				
Maize	..	..	..	1	0	0				
Wheat	..	..	..	13	2	0				
Gram	..	..	..	2	7	0				
<i>Methe</i>	..	..	..	3	0	0				
							37	5	0	
Carried over										
			..	365	4	8				

EXPENDITURE.

	Total.				Per Acre.			
	Rs.	a.	p.		Rs.	a.	p.	
Land Revenue	28	10	3		*2	7	1	
Rent	73	0	0		†6	3	8	
Upkeep of Bullocks	226	5	5		19	4	10	
Seed	39	11	0		3	6	2	
<i>Kamins</i>	16	13	0		1	6	11	
Harvesting	27	5	11		2	5	4	
Implements	13	2	0		1	1	11	
Labour	19	4	0		1	10	3	
Persian Wheel	31	2	0		2	10	6	
<i>Total</i>	<i>475</i>	<i>5</i>	<i>7</i>		<i>40</i>	<i>8</i>	<i>8</i>	

Part
VI.
B.

*Actually Rs. 3/5/8 per acre area owned.

†Actually Rs. 22/14/5 per acre area rented.

SUMMARY.

				A. K. M.					
				Total.	Per acre.				
				Rs.	a.	p.	Rs.	a.	p.
Area held .. .. .	..	..	..	11	15	16			
Area cropped .. .. .	..	..	..	14	2	4			
Intensity of cropping .. .. .	..	..	..	121	7	per cent.			
				Rs.	a.	p.	Rs.	a.	p.
Gross income .. .. .	..	..	..	708	0	10	60	6	2
Expenditure .. .. .	..	..	..	475	5	7	40	8	8
Net income .. .. .	..	..	..	232	11	3	19	13	6

HOLDING C.

Accounts for this holding could not be kept in 1930-31.

HOLDING D.

Part VI. The accounts for this holding have now been kept for the last
D. three years, *viz.*, 1928-29, 1929-30* and 1930-31.

The cultivator had a total area of 16 *acres*, 8 *marlas*, the whole of which belonged to him, no portion being taken on cash or kind rent. 5 *acres*, 5 *kanals* received no water from a well either in *kharif* or *rabi*, although it can be commanded by some of the wells. In summer a heavy flood in the river Jumna, which runs a few miles from the village, flooded the area ; thus there was no need to apply any well water to the *kharif* crops. Another portion of this holding, about 1½ *acres* in area, received water only in the winter season.

The total number of days, men and bullock spent on the cultivation averaged 48·4 and 24·3 days, respectively, per acre, as against 40·7 and 21·1 days per acre, respectively, in 1929-30.

The average intensity of cultivation was 126·8 per cent. as compared with 106·5 and 135·7 per cent., respectively, in the last two years. The number of men working on the farm was the same as last year ; a boy engaged permanently during this year was given Rs. 3/- per mensem plus food and tobacco. Casual labour was engaged whenever required and the total expenses for it were Rs. 12/15/3.

The harvesting of cotton was done by paid labour at 1/10th share and labour engaged for the harvesting of *jowar* and *bojra* was paid two annas each in cash and one seer of wheat grain plus a bundle of the crop harvested. The ears of these crops were also plucked by casual labourers who were given two seers of grain each per day. Similarly, wheat, gram and barley were also harvested by casual labour on payments of 90, 20 and 3 bundles, respectively, of these crops.

The system of cane-crushing and *gur*-making was the same as described under Holding A. In this locality, in addition to *jhoka* and *pakawa*, a cane-feeder for the crushing mill is also employed and paid in kind. These were given 6, 8 and 4 seers of *gur*, respectively, for every 24 hours working of the furnace and cane-crushing mill. In all 18 *bhelis* or 72 seers of *gur* were paid to all

**Ibid.* Pages 168-74 and 141-47, respectively.

these men. *Gur* worth Rs. 34/- was utilised to meet the expenses of *gur* manufacture ; Rs. 18/- were paid for *velna* and the rest was spent on miscellaneous items such as oil and lanterns. Part
VI.
D.

Winnowing was done by the shoemaker whose charges are included in those of the *kamins*. The payments made to carpenter, blacksmith, and *chamar* were the same as last year and amounted to Rs. 17/4/7 in all or Rs. 1/1/3 per acre.

Three bullocks were kept throughout the year to carry on the cultivation work. Their cost of upkeep was Rs. 17/14/0 per acre, as against Rs. 33/12/11 per acre in 1929-30.

The yields obtained from some of the crops on the farm this year have been exceedingly low. Sugarcane produced only 12 maunds per acre, whilst $1\frac{3}{4}$ acres of *jowar* gave only $2\frac{1}{2}$ maunds and *bajra* yielded only 3 maunds per acre. 1 acre, 1 *kanal* and 7 *marlas* of *jowar* and 1 *kanal*, 13 *marlas*, of maize were destroyed by floods. Though wheat, cotton and gram gave good outturns, the heavy fall in prices reduced the income considerably, and the gross income, therefore, was only Rs. 42/7/1 per acre, as against Rs. 67/4/1 last year. After deducting the expenditure incurred the cultivator received only a net return of Rs. 5/6/6 per acre.

Labour Sheet showing the number of Days' Work performed by Men and Bullocks throughout the Year.*

	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total days.	Days per acre.
Farm cultivation ..	28.3	64.0	75.0	81.3	48.7	78.7	75.6	62.1	72.1	103.0	45.9	41.5	776.2	48.36
Other work ..	..	..	..	..	..	..	..	..	1.3	2.5	..	23.8	27.6	..
Work done outside ..	..	..	..	..	2.5	..	6.0	5.3	2.3	..	..	..	16.1	..
Bullock cultivation ..	23.2	39.2	32.7	44.0	30.5	38.6	46.8	36.8	26.1	26.2	23.9	21.8	389.8	24.29
Other employment ..	..	..	..	..	..	..	..	..	1.3	1.2	..	18.0	20.5	..
Bullocks working outside ..	..	..	..	..	4.4	..	6.0	5.3	..	..	..	..	15.7	..
*Well-irrigation... {	10.2	36.2	29.0	46.6	28.8	77.2	65.6	46.9	42.0	20.4	22.5	28.2	453.6	28.26
{ Manual labour ..														
{ Bullock ..	5.1	18.1	14.5	23.3	14.4	38.6	32.8	23.4	21.0	10.2	11.3	14.1	226.8	14.13

* These items have been included in ' Farm' and ' Bullock ' Cultivations above.

INCOME.

A. K. M.
Area held—16 0 8

Crop.	Area.	Outturn.	Rate per maund.	Value.
	A. K. M.	Mds. Srs.	Rs. a. p.	Rs. a. p.
Cotton ..	0 4 5	5 5	4 0 0	20 8 0
Sugarcane (<i>gur</i>) ..	1 4 0	18 0	3 5 4	60 0 0
<i>Jowar</i>	1 6 13	2 20	1 9 6	3 15 9
„ stalks ..	800 bundles @ Rs. 3/8/- per 100 bundles			28 0 0
<i>Bajra</i> and <i>moth</i> ..	1 7 16	6 10	2 1 6	13 1 5
„ stalks ..	1,000 bundles @ Rs. 2/- per 100 bundles			20 0 0
Maize ..	1 1 5	16 8	2 0 0	32 6 5
„ stalks ..	250 bundles @ Rs. 2/- per 100 bundles			5 0 0
Wheat ..	5 7 16	115 0	1 13 1	209 0 7
„ <i>bhusa</i> ..	..	175 0	0 4 0	43 12 0
Gram ..	1 1 7	32 0	2 1 6	67 0 0
Barley-gram ..	1 2 18	3 0	1 0 0	3 0 0
„ „ <i>bhusa</i> ..	..	40 0	0 3 0	7 8 0
Peas ..	0 3 12	5 0	1 9 7	7 15 11
<i>San</i> (in sugarcane) ..	..	0 15	4 0 0	1 8 0
<i>Sarson</i> (in wheat) ..	..	0 9	4 7 1	1 0 0
<i>Chari</i> ..	0 4 17	..	Per kanal. {	3 10 0
„ „ <i>guara</i> ..	1 0 15	..		3 12 0
<i>Methe</i> ..	0 4 5	..		3 8 0
„ ..	0 4 17	..		5 6 6
Lucerne ..	0 1 18	..		6 0 0
<i>Jowar</i> ..	1 1 7	Failed	..	..
Maize ..	0 1 13	Failed	..	..
<i>Total</i> ..	20 3 4	..	..	626 10 4

Part
VI.
D

(Continued).

	Rs. a. p.	Rs. a. p.
Brought forward	..	626 10 4
Part ADD THE FOLLOWING PAID IN KIND—		
VI.		
D.		
1. <i>Harvesting</i> —		
Cotton, 22 $\frac{3}{4}$ seers	2 4 5	
Maize, 20 ,,	1 0 0	
Peas, 6 ,,	0 3 10	
<i>Jowar</i> , 23 $\frac{1}{2}$,,	0 15 0	
<i>Bajra</i> , 28 $\frac{1}{2}$,,	1 7 10	
<i>Gur</i> to <i>jhoka</i> , <i>pakawa</i> and cane-feeder, 1 maund 32 seers	6 0 0	
<i>Gur</i> , (cane-crushing mill-hire), 30 seers ..	2 8 0	
<i>Bajra</i> , 13 bundles @ Rs. -/1/8 per bundle ..	1 5 8	
<i>Jowar</i> , 3 ,, @ Rs. -/1/- ,, ..	0 3 0	
Wheat, 90 ,, @ Rs. -/1/3 ,, ..	7 0 6	
Gram, 20 ,, @ Rs. -/2/9 ,, ..	3 3 1	
Barley, 3 ,, @ Rs. -/1/- ,, ..	0 3 0	
	.....	26 6 7
2. <i>Kamins</i> —		
Wheat, 3 maunds 25 seers	6 9 5	
Maize, 3 ,, 25 ,,	7 4 0	
<i>Gur</i> , 25 seers	2 1 4	
Wheat <i>bhusa</i> , 2 maunds 15 seers ..	0 9 6	
,, 13 bundles @ Rs. -/1/3 per bundle ..	1 0 3	
Maize, 3 ,,	0 7 2	
<i>Chari</i> , 3 ,, @ Rs. -/2/- ,, ..	0 6 0	
<i>Methe</i> , 3 ,, @ Rs. -/2/- ,, ..	0 6 0	
	.....	18 11 8
3. <i>Seed</i> .—		
Sugarcane, 16 bundles @ Rs. -/8/- per bundle	8 0 0	
<i>Methe</i> , 20 seers	1 6 10	
	.....	9 6 10
<i>Gross Income</i>	..	<u>681 3 5</u>

ANALYSIS OF EXPENDITURE.

				Rs.	a.	p.	Rs.	a.	p.	Part VI, D.
1. <i>Land Revenue</i> —										
Total	..	..	..	66	14	3				
Less Remission	..	..	..	12	5	9				
				<hr/>			54	8	6	
2. <i>Upkeep of Bullocks</i> —										
Last year's <i>bhusa</i>	..	..	..	121	14	0				
Surplus at the end of year	..	..	..	60	0	0				
				<hr/>						
<i>Bhusa</i> consumed	..	..	..	61	14	0				
<i>Jowar</i> , <i>bajra</i> and maize dry stalks	..	..	..	53	0	0				
Green fodders	..	..	..	102	14	3				
Cane tops	..	..	..	1	1	6				
Grass	..	..	..	1	14	0				
				<hr/>						
Total fodders	..	..	..	220	11	9				
				<hr/>						
Total adult stock	—5½ animals.									
Number of bullocks	3.									
Bullocks' share of fodders	—4/7ths			..	126	2	2			
				<hr/>						
Concentrates—										
Peas	..	..	..	13	4	8				
<i>Methe</i>	..	..	..	6	0	0				
<i>Guara</i>	..	..	..	18	0	0				
Gram	..	..	..	19	8	0				
Oil-cakes	..	..	..	2	0	0				
<i>Ghi</i>	..	..	..	0	12	0				
Oil	..	..	..	1	0	0				
Salt	..	..	..	0	4	0				
Interest and depreciation at 20% on Rs. 486/-				97	3	2				
Shoing of bullocks	..	..	..	2	13	0				
				<hr/>			286	15	0	
3. <i>Seed</i> —										
Sugarcane, Coimbatore 205	..	..	..	15	0	0				
„ „ <i>desi</i>	..	..	..	8	0	0				
Cotton, <i>desi</i>	..	..	..	0	5	0				
<i>Bajra</i> , <i>moth</i>	..	..	..	1	4	0				
<i>Jowar</i>	..	..	..	5	2	0				
Maize	..	..	..	1	0	0				
Wheat	..	..	..	19	4	7				
Peas	..	..	..	1	0	0				
<i>Methe</i>	..	..	..	2	12	0				
Gram	..	..	..	4	14	5				
Barley	..	..	..	1	0	0				
Lucerne	..	..	..	0	10	0				
<i>Sarson</i>	..	..	..	0	3	2				
<i>San</i>	..	..	..	0	0	5				
				<hr/>			60	7	7	
				<hr/>						
Carried over	..	..	..	401	15	1				

				Rs. a. p.	Rs. a. p.
				..	401 15 1
Brought forward					
Part VI. D.	4. <i>Kamins</i> ---				
	Maize, 3 maunds .. .. .	..	..	6 0 0	
	Gur, 20 seers .. .. .	..	..	1 10 8	
	Wheat, 5 maunds .. .. .	..	..	9 1 5	
	,, <i>bhusa</i> , 25 seers .. .. .	..	..	0 2 6	
	<i>Chari</i> , 2 bundles @ Rs. -/2/- per bundle .. .. .	..	..	0 4 0	
	<i>Methe</i> , 1 ,, @ Rs. -/2/- ,, .. .. .	..	..	0 2 0	
					17 4 7
	5. <i>Harvesting</i> ---				
	For details see Income Statement .. .. .	..	..	26 6 7	
	Wheat .. .. .	..	..	1 6 6	
					27 13 1
	6. <i>Labour</i> - -				
	(a). <i>Permanent</i> ---				
	A boy at Rs. 3/- per mensem .. .. .	..	..	36 0 0	
	Food and tobacco .. .. .	..	..	30 0 0	
	(b). <i>Casual</i> .. .. .	..	..	12 15 3	
					78 15 3
	7. <i>Persian Wheel</i> ---				
	Interest and depreciation at - -				
24 % on Rs. 43/8/11, share in chains .. .. .	..	..	10 7 3		
18 % on Rs. 82/2/8, remainder .. .. .	..	..	14 12 8		
Repairs to Persian wheel .. .. .	..	..	8 8 0		
Rent paid for other wells .. .. .	..	..	11 0 0		
Oil .. .. .	..	..	3 5 4		
				48 1 3	
8. <i>Implements</i>					
Replacements .. .. .	..	..	6 5 6		
Interest and depreciation at 20 % on Rs. 70/-, the value of cart .. .. .	..	..	14 0 0		
				20 5 6	
<i>Total Expenditure</i>				<u>594 6 9</u>	

EXPENDITURE.

Part
VI.
D.

	Total.			Per Acre.		
	Rs.	a.	p.	Rs.	a.	p.
Land Revenue	54	8	6	3	6	4
Upkeep of Bullocks	286	15	0	17	14	0
Seed	60	7	7	3	12	4
<i>Kamins</i>	17	4	7	1	1	3
Harvesting	27	13	1	1	11	9
Labour	78	15	3	4	14	9
Persian Wheel	48	1	3	2	15	11
Implements	20	5	6	1	4	3
<i>Total</i>	<i>594</i>	<i>6</i>	<i>9</i>	<i>37</i>	<i>0</i>	<i>7</i>

SUMMARY.

			A. K. M.					
Area held .. .. .	..	..	16	0	8	
Area cropped .. .. .	..	..	20	3	4	
Intensity of cropping .. .. .	..	..	126·8 per cent.			
			Total					
			Per acre.					
			Rs.	a.	p.	Rs.	a.	p.
Gross income	681	3	5	42	7	1
Expenditure	594	6	9	37	0	7
Net income	86	12	8	5	6	6

PART VII.

Accounts of three holdings under Well-

Irrigation in the Jhelum District

during the year

1st July 1930 to 30th June 1931.

PART VII.

Farm accounts of three holdings in the Jhelum District appeared for the first time in Part VII. of *Farm Accounts, 1928-29*.* No records could, however, be kept during 1929-30 owing to floods in the Jhelum River. During the year under report the accounts were again kept on three holdings in the Pind Dadan Khan *Tahsil*; the compiled results are given in this part. Holding B. of the year is the same as Holding B. of 1928-29, while A. and C. are different from those of 1928-29. Holding A. is situated about 8 miles from Haranpur, the nearest railway station, B. 9 miles and C. about 11 miles. Holding A. was farmed by a cultivator who owned 8 *acres*, 3 *kanals* and 7 *marlas* of land and took 19 *acres*, 3 *kanals* on *batai*. Holding B. was cultivated by members of the landlord's family, and C. by a tenant, partly on cash rent, and partly on *batai*. The common practice in *batai* cultivation is to divide the produce half and half, except *bhusa* and green fodder, of which the owner of the land gets only a one-third share. Two peculiarities of the tract deserve special mention. The landlord has a *muhassal* who looks after the crops, weighs the produce, and divides the landlord's share from that of his tenants'; he also looks after other household affairs of the landlord. In payment for these services he receives, from the common heap, generally from 1 to 1 $\frac{1}{4}$ seers per maund. Carts are very uncommon, the carrying of produce is usually done by the potmaker on donkeys, at a charge of from 1 to 1 $\frac{1}{4}$ seers per maund of produce. None of these three cultivators possessed a cart. The winnowing of wheat was done by *mussalis*, who were given from 2 to 2 $\frac{1}{2}$ seers per maund of grain winnowed.

The cropping, income, expenditure and the time spent on cultivation of the three holdings are given in the table below :—

Holding.	Area		Intensi- ty of cropping.	PER ACRE.			WORKING DAYS PER ACRE.	
	held.	cropped.		Gross income.	Expendi- ture.	Net income.	Men.	Bullocks.
	A. K. M.	A. K. M.	Per cent.	Rs. a. p.	Rs. a. p.	Rs. a. p.		
A. ..	27 6	724 2 19	87·7	26 15 11	18 11 8	8 4 3	33·6	19·0
B. ..	21 7 10	13 6 19	63·2	23 9 9	28 12 10	—5 3 1	23·2	12·3
C. ..	25 6 8	12 4 12	48·7	12 3 3	14 3 8	—2 0 5	21·9	11·5

* *Ibid.* pages 175-98,

Part
VII.

Owing to the lack of timely rains, a large part of the *rabi* sowing could not be done, with the result that the intensity of cropping of the three holdings was very low, particularly in the cases of C. and B. This, along with the low prices of produce, brought the gross income to such a low level, that in two out of the three holdings the year's working resulted in a net loss. The time spent on cultivation of Holding A. was about 50 per cent. more than that on either B. or C. This was evidently due to the higher intensity of cultivation on this holding.

The full amount of land revenue charged has been included in the expenditure.

No permanent labour was employed on any of the three holdings, nor has any reward for the labour done by the cultivators' family members been reckoned in the expenses. The foregoing table, therefore, gives the financial results of the three holdings on an equal basis for purposes of comparison.

HOLDING A.

This holding is situated at a distance of about 8 miles from Haranpur. The cultivator owned 8 acres, 3 kanals and 7 marlas, the whole of which was *chahi* land and he further rented 19 acres, 3 kanals on *batai*. Of the latter 5 acres, 6 kanals and 19 marlas were *chahi*, the remainder *barani*. Thus the total area of the holding was 27 acres, 6 kanals and 7 marlas, of which 14 acres, 2 kanals and 6 marlas were *chahi* and the remainder *barani*. The intensity of cropping was 87·7 per cent.

Three members of the cultivator's family carried on the cultivation; they were also helped by a boy about 10 or 11 years of age. They had six bullocks of a total value of Rs. 820/- and the cost of their upkeep was Rs. 355/4/5 or Rs. 12/12/6 per acre. The time spent on cultivation was, on the average, 33·6 days of one man, and 19·0 days of a pair of bullocks, per acre. Of this well-irrigation alone was responsible for 17·0 and 8·5 days per acre, respectively.

Land revenue for the land taken on *batai*, was paid by the owner of the land, who was also responsible for his share of the maintenance of the Persian wheel. The produce from this land was divided equally between the owner and the cultivator, but in the case of green fodder and *bhusa*, the owner received only a one-third share. The gross income from the land owned, and that taken on rent, has been shown separately in the income statement.

The well had a wooden Persian wheel valued at Rs. 160/-. It required 12 chains during the year; each of them cost 8 annas. The cost of the Persian wheel, including interest and depreciation on its value, and payments to the potmaker for supplying buckets, was Rs. 44/4/10 or Rs. 1/9/6 per acre. The cultivator had no cart and no chaff-cutter, nor had he purchased any hand tool during the year; the iron he purchased for 14 annas for making ploughshares and sickles was the only expenditure under this head. For winnowing wheat the *mussalis* were paid 2 seers per maund of wheat winnowed.

Amongst *kamins* were included the carpenter and blacksmith, each of whom was given the following :—

					<i>Seers.</i>
Maize	..	..	..	..	16
Cotton	..	..	..	..	4
Wheat	..	..	..	..	80
					<i>Bundles.</i>
Maize	..	..	..	..	1
Wheat	..	..	..	..	3
<i>Kharif</i> fodders	..	..	..	..	2
<i>Rabi</i> ..	..	..	..	..	3

Part VII. A. The potmaker was also paid the same amounts as the others, except wheat, of which he was given only one maund.

The miscellaneous expenses include the cost of carrying the produce from the threshing floor to the godown, which was one seer per maund.

The gross income of the holding was Rs. 26/15/11 per acre, while the expenditure amounted to Rs. 18/11/8, leaving a net income of Rs. 8/4/3 per acre. The gross income of the landlord was Rs. 6/13/4, while that of the cultivator, Rs. 20/2/7 per acre. Their expenses worked out at Rs. 2/2/8 and Rs. 16/9/0 per acre, respectively; they were thus left with net incomes of Rs. 4/10/8 and Rs. 3/9/7 per acre. It will, of course, be borne in mind that in the expenses no labour has been included; thus the net income of Rs. 99/14/11 represents the reward for the labour of three adult members of the family and a boy over 10 years of age for working the full twelve months.

Labour Sheet showing the number of Days' Work performed by Men and Bullocks throughout the Year.

Part VII. A.

	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total days.	Days per acre.
Farm cultivation	.. 90.3	68.0	65.5	81.8	67.0	68.7	63.2	83.3	47.6	90.9	130.2	78.0	934.5	33.6
Bullock cultivation	.. 66.6	54.0	46.8	58.8	51.0	36.6	30.6	40.1	35.5	46.2	24.6	38.0	528.8	19.0
*Well-irrigation ..	..	22.0	31.5	42.0	32.0	58.2	61.2	80.3	18.2	85.5	41.2	..	472.1	17.0
{ Manual labour ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
{ Bullock " ..	..	11.0	15.8	21.0	16.0	29.1	30.6	40.1	9.1	42.8	20.6	..	236.1	8.5

* These items have also been included in the preceding items.

A. K. M.
Area held—27 6 7

INCOME.

Part
VII.
A.

Crop.	Area.	Outturn.	Rate per maund.	Value.
(a). <i>Batai</i> —	A. K. M.	Mds. Srs.	Rs. a. p.	Rs. a. p.
Maize ..	1 7 8	12 0	1 4 0	15 0 0
„ stalks ..	..	..	..	1 8 0
Cotton ..	0 5 0	7 0	5 0 0	35 0 0
<i>Bajra</i> ..	1 1 5	10 0	1 0 0	10 0 0
Wheat ..	10 0 1	75 0	1 14 0	140 10 0
„ <i>bhusa</i> ..	..	150 0	0 8 0	75 0 0
Maize ..	0 2 13	..	10 0 0	26 8 0
<i>Chari</i> ..	1 3 9	..	3 0 0	34 5 7
Turnips ..	0 6 2	..	12 0 0	73 3 2
Lucerne ..	0 2 4	..	12 0 0	26 6 5
(b). <i>Land owned</i> —		<i>Per kanal.</i>		
Turnips ..	0 4 0	..	12 0 0	48 0 0
Sugarcane (sold) ..	0 2 0	..	40 0 0	80 0 0
Wheat ..	7 0 17	53 0	1 14 0	99 6 0
„ <i>bhusa</i> ..	..	106 0	0 8 0	53 0 0
<i>Total</i> ..	24 2 19	..	..	717 15 2

ADD THE FOLLOWING PAID IN KIND:—

1. *Winnowing*—

(a). *Batai*—Wheat 3 mds. 30 seers. @ Rs. 1/14/- Rs. a. p.
per md. 7 0 6

(b). *Land owned*—Wheat 2 mds. 26 seers
@ Rs. 1/14/- per md. 4 15 6

2. *Kamins*—

(a). *Batai*—Maize 6 bundles @ Rs. -/12/-
per bundle 4 8 0

Wheat 11 bundles @ Rs. -/14/- per bundle .. 9 10 0

(b). *Land owned*—Wheat 7 bundles @ Rs. -/14/-
per bundle 6 2 0

20 4 0

Gross Income ..

750 3 2

ANALYSIS OF EXPENDITURE.

			Rs.	a.	p.	Rs.	a.	p.	Part VII. A.
1. <i>Land Revenue</i> —									
	For land on <i>bata</i>	..	..	..	33	12	0		
	„ „ owned	..	..	..	13	12	0	47	8 0
2. <i>Upkeep of Bullocks</i> —									
	<i>Bhusa</i> consumed, 364 mds. @ Rs. -/6/- per md.				136	8	0		
	Green fodder	..	..	..	155	15	5		
	Total fodders	..			292	7	5		
	Total adult stock—11 animals.								
	Bullocks—6 (worth Rs. 820/-).								
	Bullocks' share of fodders—6/11ths	..			159	8	5		
	Concentrates	..	..	..	31	12	0		
	Interest and depreciation at 20 % on Rs. 820/-				164	0	0	355	4 5
3. <i>Well and Persian Wheel</i> —									
	Interest and depreciation at 18 % on Rs. 160/-				28	12	10		
	<i>Munj</i> chains, 12	..	..	..	6	0	0		
	Oil for lubrication	..	..	..	2	0	0		
	Payments to potmaker—								
	Landlord	..	..	..	1	8	0		
	Tenant	..	..	..	6	0	0	44	4 10
4. <i>Implements</i> —									
	Iron for making ploughshares and sickles	..		..				0	14 0
5. <i>Seed</i> —									
	Maize	..	..	..	3	13	0		
	Cotton	..	..	..	0	5	0		
	<i>Bajra</i>	..	..	..	0	4	0		
	<i>Jowar</i>	..	..	..	2	2	6		
	Turnips	..	..	..	1	0	0		
	Lucerne	..	..	..	2	8	0		
	Wheat	..	..	..	18	12	0		
	Sugarcane	..	..	..	3	5	6	32	2 0
	Carried forward			..				480	1 3

		Rs. a. p.	Rs. a. p.
Brought forward		..	480 1 3
Part VII.	6. <i>Winnowing</i> --For details see Income Statement--	..	12 0 0
A.	7. <i>Kamins</i> (Carpenter and Blacksmith)--		
	Maize, 32 seers @ Rs. 1/4/- per maund ..	1 0 0	
	Cotton, 8 ,, @ Rs. 5/-/- ,, ..	1 0 0	
	Wheat, 4 mds. @ Rs. 1/14/- ,, ..	7 8 0	
	Maize, 2 bundles @ Rs. -/12/- per bundle ..	1 8 0	
	Wheat, 6 ,, @ Rs. -/14/- ,, ..	5 4 0	
	<i>Kharif</i> fodder, 4 bundles @ Rs. -/4/- per bundle	1 0 0	
	<i>Rabi</i> fodder, 6 ,, @ Rs. -/4/- ,,	1 8 0	18 12 0
8.	<i>Miscellaneous</i> --		
	Carrying wheat to the stores:--		
	Tenant, wheat 2 mds. 10½ srs. @ Rs. 1/14/- per maund	4 3 11	
	Landlord, wheat 37½ seers @ Rs. 1/14/- per maund	1 15 10	
	<i>Muhassal</i> , wheat 1 maund 35 seers @ 1 seer per maund	3 8 3	9 12 0
	<i>Total Expenditure</i>	..	<u>520 9 3</u>

EXPENDITURE.

Part
VII.
A.

	TOTAL.						PER ACRE.					
	Landlord.		Tenant.		Total.		Landlord.		Tenant.		Total.	
	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.
Land Revenue ..	33	12 0	13	12 0	47	8 0	1	3 5	0	7 11	1	11 4
Upkeep of Bullocks..	..		355	4 5	355	4 5	..		12	12 6	12	12 6
Well and Persian Wheel.	15	6 9	28	14 1	44	4 10	0	8 11	1	0 7	1	9 6
Implements ..	..		0	11 0	0	11 0	..		0	0 6	0	0 6
Seed ..	..		32	2 0	32	2 0	..		1	2 6	1	2 6
Winnowing ..	3	8 3	8	7 9	12	0 0	0	2 0	0	4 11	0	6 11
<i>Kamins</i> ..	3	12 0	15	0 0	18	12 0	0	2 2	0	8 8	0	10 10
Miscellaneous ..	3	12 0	6	0 0	9	12 0	0	2 2	0	3 5	0	5 7
<i>Total</i> ..	<u>60</u>	<u>3 0</u>	<u>160</u>	<u>6 3</u>	<u>520</u>	<u>9 3</u>	<u>2</u>	<u>2 8</u>	<u>16</u>	<u>9 0</u>	<u>18</u>	<u>11 8</u>

SUMMARY.

				A. K. M.
Area held	..	..	27	6 7
Area cropped	..	..	24	2 19
Intensity of cropping	..	..	87.7	per cent.

	TOTAL.						PER ACRE.					
	Gross income.		Expenditure.		Net income.		Gross income.		Expenditure.		Net income.	
	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.
Landlord ..	189	14 0	60	3 0	129	11 0	6	13 4	2	2 8	4	10 8
Tenant ..	580	5 2	460	6 3	99	14 11	20	2 7	16	9 0	3	9 7
<i>Total</i> ..	<u>750</u>	<u>3 2</u>	<u>520</u>	<u>9 3</u>	<u>229</u>	<u>9 11</u>	<u>26</u>	<u>15 11</u>	<u>18</u>	<u>11 8</u>	<u>8</u>	<u>4 3</u>

HOLDING B.

Part VII. B. This is the same holding the accounts of which were published for the first time as Holding B. of Part VII. in *Farm Accounts, 1928-29*.* During the year under investigation it consisted of an area of 21 acres, 7 kanals and 10 marlas, of which 10 acres, 7 kanals and 3 marlas were *chahi* and the remainder *barani*. Owing to the lack of timely rains, most of the *barani* land could not be cropped; only 1 acre, 6 kanals and 4 marlas were sown under *bajra*, which, however, being very poor, was valued only at Re. 1/- per kanal. The intensity of cropping was, therefore, only 63·2 per cent.; this was partly responsible for the low gross income obtained from the holding.

Two members of the family, with no permanent labourers, carried on cultivation work throughout the year, but casual labourers were employed whenever needed and were given only one meal a day. The total value of these meals comes to Rs. 9/-. In addition to this help, 23 men were invited for harvesting wheat; the total cost of entertaining them was Rs. 11/8/0. There were 4 bullocks worth Rs. 624/-; the cost of their upkeep, including interest and depreciation amounted to Rs. 466/10/1 or Rs. 21/4/4 per acre as against Rs. 25/10/3 in 1928-29.

The time spent on cultivation amounted to 509·8 days of one man and 269·8 days of a pair of bullocks or 23·2 days of one man and 12·3 days of a pair, per acre, against 24·37 and 15·16 days, respectively, in 1928-29. Out of this, 9·8 days of one man and 4·9 days of a pair of bullocks, per acre, were spent exclusively on well-irrigation. This left 13·4 days and 7·4 days, respectively, for cultivation work.

The whole of the *chahi* land was irrigated from one well, which had one wooden Persian wheel, and in which the landlord had half a share. The repairs of the well cost him Rs. 4/12/0, chains which were prepared from *sarkanda*, Rs. 3/-, and payments to the potmaker Rs. 4/2/6 for supplying buckets. The total expenses of the well and Persian wheel, including interest and depreciation came to Rs. 1/2/9 per acre.

The landlord had no cart or chaff-cutter; the farmyard manure and the produce were carried on donkeys by the potmaker. The expenses on implements were made up of the interest and depreciation on the value of Meston ploughs and the purchase of some petty tools during the year. These expenses amounted to Rs. 0/7/4 per acre.

Amongst the *kamins* were included the carpenter and the blacksmith. The payments to them and to the potmaker were made as follows :—

				<i>Blacksmith.</i>	<i>Carpenter.</i>	<i>Potmaker.</i>
				<i>Seers.</i>	<i>Seers.</i>	<i>Seers.</i>
Cotton	..	..	..	3	3½	4½
Maize	..	..	..	16	20	24
Wheat	..	..	..	40	50	60
Tobacco	..	..	..	2½	3½	3½
				<i>Bundles.</i>	<i>Bundles.</i>	<i>Bundles.</i>
Maize	..	..	..	1	1½	1½
Wheat	..	..	..	1	1½	1½
Fodder	..	..	..	4	5	6

The payments to the carpenter and blacksmith averaged Rs. 0/12/2 per acre. The dues of the potmaker are charged partly to the well and Persian wheel for the supply of buckets, and partly to the miscellaneous item for transporting produce and farmyard manure.

The gross income from the holding was Rs. 23/9/9 per acre against Rs. 107/12/2 and expenditure Rs. 28/12/10 against Rs. 59/7/0 per acre in 1928-29. It will be seen that the labour of family members has not been included in the expenditure and thus the cost of upkeep of bullocks was the heaviest item of the expenditure, as it was about 75 per cent. of the total. The holding thus showed a loss of Rs. 113/14/11 or Rs. 5/3/1 per acre. •

Labour Sheet showing the number of Days' Work performed by Men and Bullocks throughout the Year.

	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total days.	Days per acre.
Farm cultivation	.. 49.1	44.4	46.3	60.1	52.5	37.6	33.8	30.8	31.9	43.5	52.2	24.6	509.6	23.2
Other work	.. ..	.. ..	.. ..	.. ..	0.8	3.0	.. ..	3.0	2.0	.. ..	5.0	.. ..	13.8	0.6
Bullock cultivation	.. 32.8	28.9	26.7	30.6	35.0	16.8	14.3	14.8	18.8	5.8	23.9	21.4	269.6	12.3
Bullocks on other work	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
*Well-irrigation...	.. 12.5	12.3	19.5	33.0	26.0	32.5	24.0	22.0	20.2	4.5	2.5	6.5	215.5	9.6
	.. 6.3	6.1	9.8	16.5	13.0	16.2	12.0	11.0	10.1	2.3	1.2	3.3	107.8	4.9

* These items have been included in 'Farm' and 'Bullock' Cultivations above.

INCOME.

A. K. M.
Area hold—21 7 10

Part
VII.
B.

Crop.	Area.	Outturn.	Rate		Value.
			per maund.		
	A. K. M.	Mds. Srs.	Rs. a. p.	Rs. a. p.	
Maize	0 5 18	9 20	2 0 0	19 0 0	
„ stalks .. ..	.. ..	..	..	2 0 0	
Cotton (<i>desi</i>)	0 5 0	3 0	5 0 0	15 0 0	
Wheat	6 4 17	55 0	2 0 0	110 0 0	
„ <i>bhusa</i> .. ..	.. ..	110 0	0 8 0	55 0 0	
Tobacco	0 0 15	2 0	8 0 0	16 0 0	
Maize	0 6 2	..	12 4 0	74 11 7	
<i>Bajra</i>	0 6 0	..	9 0 0	54 0 0	
Turnips	1 6 0	..	7 4 0	101 8 0	
„ (sold green)	0 3 1	..	7 0 0	21 5 7	
Lucerne	0 3 0	..	7 0 0	21 0 0	
<i>Bajra</i>	1 6 4	..	1 0 0	14 3 2	
Sugarcane	0 0 2	..	30 0 0	3 0 0	
<i>Total</i>	13 6 19	..	..	506 12 4	

ADD THE FOLLOWING PAID IN KIND:—

1. *Winnowing*—

Wheat at 2 seers per maund, 2 $\frac{3}{4}$ maunds	Rs. a. p.	5 8 0
@ Rs. 2/- per maund		

2. *Kamins*—

Maize, 3 $\frac{3}{4}$ bundles @ Rs. -/12/- per bundle ..	2 13 0	
Wheat, 3 $\frac{3}{4}$ „ @ Rs. -/12/- „ ..	2 13 0	5 10 0

Gross Income .. 517 14 4

ANALYSIS OF EXPENDITURE.

				Rs.	a.	p.	Rs.	a.	p.
Part VII. B.	1.	<i>Land Revenue—</i>							
		<i>Kharif</i>	..	..	..	15	7	6	
		<i>Rabi</i>	..	..	..	23	3	3	
									38 10 9
	2.	<i>Labour (casual)—</i>	..	..	..	..	..	..	9 0 0
	3.	<i>Upkeep of Bullocks—</i>							
		<i>Bhusa, 220 maunds @ Rs. -/8/- per maund</i>	..		..	110	0	0	
		<i>Green fodder</i>	..	..	..	267	6	9	
		Total fodders	..		..	377	6	9	
		Total adult stock—5 animals.							
		Number of bullocks—4.							
		<i>Bullocks' share of fodder—4/5ths</i>	..		..	301	15	0	
		<i>Concentrates</i>	..		..	39	14	3	
		<i>Interest and depreciation at 20 % on Rs. 624/-</i>				124	12	10	
									466 10 1
	4.	<i>Well and Persian wheel—</i>							
		<i>Repairs to well</i>	..	..	..	9	8	0	
		<i>Cost of 6 chains</i>	..	..	..	6	0	0	
		<i>Interest and depreciation at 18 % on Rs. 145/-</i>				26	1	6	
		Total	..		..	41	9	6	
		<i>Share of the cultivator—$\frac{1}{2}$</i>	..	..	..	20	12	9	
		<i>Payments to potmaker for supplying buckets</i>	..		..	4	2	7	
		<i>Oil for lubrication</i>	..	..	..	0	12	0	
									25 11 4
	5.	<i>Implements—</i>							
		<i>Interest and depreciation at 18 % on Rs. 25/15/0,</i>							
		<i>the value of improved plough</i>	..		..	4	10	4	
		<i>Tools and shares of ploughs purchased</i>	..		..	5	6	0	
									10 0 4
		Carried forward	..		..				550 0 6

	Brought forward	Rs. a. p.	Rs. a. p.	Part VII. B.
		..	550 0 6	
6. <i>Seed</i> —				
Maize	.. .. .	6 0 0		
Cotton	.. .. .	0 5 2		
Wheat	.. .. .	26 4 0		
<i>Bajra</i>	.. .. .	0 6 0		
Turnips	.. .. .	4 8 0		
Lucerne	.. .. .	3 12 0		
			41 3 2	
7. <i>Harvesting</i> —				
Cost of entertaining 23 men for harvesting wheat	..		11 8 0	
8. <i>Winnowing</i> —				
Wheat, 2 maunds 30 seers @ Rs. 2/- per maund	..		5 8 0	
9. <i>Kamins</i> (Carpenter and Blacksmith)—				
Cotton, 7½ Seers @ Rs. 5/- per maund		0 15 0		
Maize, 40 „ @ Rs. 2/- „		2 0 0		
Wheat, 100 „ @ Rs. 2/- „		5 0 0		
Tobacco, 6½ „ @ Rs. 8/- „		1 4 0		
Maize, 2½ bundles @ Rs. -/12/- bundle		1 14 0		
Wheat, 2½ „ @ Rs. -/12/- „		1 14 0		
Green fodder, 10 „ @ Rs. -/6/- „		3 12 0		
			16 11 0	
10. <i>Miscellaneous</i> —				
Wheat to <i>muhassal</i> at 1 seer per maund, 1 maund 15 seers @ Rs. 2/- per maund	..	2 12 0		
Payments to potmaker for carrying produce and manure	..	4 2 7		
			6 14 7	
	<i>Total Expenditure</i>	..	<u>631 13 3</u>	

EXPENDITURE.

Part
VII.
B.

	Total.			Per Acre.		
	Rs.	a.	p.	Rs.	a.	p.
Land Revenue	38	10	9	1	12	2
Labour (casual)	9	0	0	0	6	7
Upkeep of Bullocks	466	10	1	21	4	4
Well and Persian wheel	25	11	4	1	2	9
Implements	10	0	4	0	7	4
Seed	41	3	2	1	14	1
Harvesting	11	8	0	0	8	5
Winnowing	5	8	0	0	4	0
<i>Kamins</i>	16	11	0	0	12	2
Miscellaneous	6	14	7	0	5	0
<i>Total</i>	<i>631</i>	<i>13</i>	<i>3</i>	<i>28</i>	<i>12</i>	<i>10</i>

SUMMARY.

			A. K. M.
Area held .. .. .	..	..	21 7 10
Area cropped .. .. .	..	..	13 6 19
Intensity of cropping .. .. .	..	..	63·2 per cent.
			Total. Per acre.
			Rs. a. p. Rs. a. p.
Gross Income .. .. .	..	..	517 14 4 23 9 9
Expenditure .. .. .	..	..	631 13 3 28 12 10
<i>Net loss</i> .. .. .	..	..	<i>-113 14 11 -5 3 1</i>

HOLDING C.

This holding is situated within two miles of Holding B. and about 11 miles from Haranpur. The total area of the holding was 25 acres, 6 kanals and 8 marlas; it was controlled by three wells. The water of two of these wells, which irrigated 16 acres, 4 kanals and 15 marlas had become saltish during the last three years; the land was, therefore, dependent entirely on rain. The tenant cultivated this land but owing to lack of rain at the proper time he could not grow any crop on it; the 9 acres, 1 kanal and 13 marlas lying on the third well was cropped; and the area of the crops was 12 acres, 4 kanals and 12 marlas. Of the latter, 6 kanals, 6 marlas of bajra received no irrigation, the crop was poor and was valued at Re. 1/- per kanal. 6 acres, 1 kanal and 13 marlas of this area was taken on a cash rent of Rs. 118/8/0 and 3 acres on the batai system of half and half the grain, also kharif and barani fodders, but one-third of the bhusa and rabi fodders to the owner and two-thirds to the tenant.

Two members of the family, with four bullocks worth Rs. 495/- carried on the cultivation during the year; the time spent on the work averaged 21.9 days of one man and 11.5 days per pair of bullocks, per acre. Of this, well-irrigation required 12.6 days of one man and 6.3 days of a pair per acre of holding. The cost of upkeep of bullocks amounted to Rs. 265/15/8 or Rs. 10/5/0 per acre.

The land cultivated by the tenant on the well carrying a wooden Persian wheel formed three-eighths of the total area commanded by the well. The Persian wheel was maintained in good order by the owner, the buckets were supplied by the potmaker who was remunerated jointly by the landlord and tenant. The tenant had no cart or any other implement of material value on which to allow interest and depreciation; the purchase of petty tools cost him Rs. 3/2/0. Winnowing was done by musallis who were given 2½ seers per maund of grain winnowed.

Payments to the potmaker have been included in the cost of the Persian wheel and those to carpenter and blacksmith are among the kamins' charges. Each of them was given the following:—

			From crops on rented land. Seers.	From crops on batai land. Seers.
Maize	..	..	4	2
Wheat	..	..	16	8
			Bundles.	Bundles.
Wheat	..	..	2	1

Part
VII.
C.

The carpenter who alone had a milch animal, got 3 bundles of green fodder, which payments came to Rs. 0/5/3 per acre. The *muhassal* who, on behalf of the landlord, looks after the crops and weighs and divides the produce between the landlord and tenant, was given 16 seers of wheat, 4 seers of maize and 2 maunds of *bhusa* from the common heap. The tenant had no cart, the produce was taken home on donkeys by the potmaker, who was given 1¼ seers per maund of grain carried.

As already stated a large part of the holding could not be cropped during the year; the intensity of cropping was therefore 48·7 per cent. If this area be excluded the intensity would be 136·6 per cent. Low cropping combined with low prices reduced the income so much that the gross income averaged only Rs. 12/3/3 per acre. The expenditure was Rs. 14/3/8 leaving a loss of Rs. 2/0/5 per acre. As the landlord had only to pay land revenue, bear expenses on maintenance of the Persian wheel and some other charges, he was left with a net income of Rs. 4/- per acre, while the tenant suffered a loss of Rs. 6/0/5 per acre. It should be remembered that the wages of the workers have not been considered in the expenses. The tenant was, therefore, not only left with no remuneration for his labour, but further, suffered a loss of Rs. 155/5/10 or Rs. 6/0/5 per acre.

Labour Sheet showing the number of Days' Work performed by Men and Bullocks throughout the Year.

	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total days.	Days per acre.
Farm cultivation	.. 50.0	51.6	44.5	44.8	37.7	32.5	46.7	29.3	50.9	69.1	66.4	40.6	564.1	21.9
Other work	.. 1.0	1.0	2.0	2.0	2.0	..	1.0	2.0	1.5	1.5	6.5	7.3	27.8	1.1
Bullock cultivation	.. 31.8	24.6	30.0	30.1	25.0	17.8	27.1	14.6	27.1	22.5	21.4	24.1	296.1	11.5
Bullocks on other work	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	..	..
{ Manual labour .. 32.5 { Well-irrigation .. 16.3 { Bullock .. 16.3	32.5	22.5	29.0	23.3	19.5	28.0	33.2	19.5	35.5	36.0	12.0	33.8	324.8	12.6
	.. 16.3	11.2	14.5	11.6	9.8	14.0	16.6	9.8	17.7	18.0	6.0	17.3	162.8	6.3

* These items have been included in 'Farm' and 'Bullock' (Cultivations above).

A. K. M.
Area held—25 6 8

INCOME.

Part
VII.
C.

Crop.	Area.		Outturn.		Rate per maund.		Value.	
	A. K. M.		Mds.	Srs.	Rs. a.	p.	Rs. a.	p.
<i>(a) Rented—</i>								
Maize	1 0 0		6	12	2 0 0		12 9 7	
„ stalks .. ..	..		..	..	..		3 0 0	
Wheat,	3 4 14		32	0	1 10 6		53 0 0	
„ <i>bhusa</i> .. ..	..		40	0	0 8 0		20 0 0	
Barley	0 4 0		..	..	0 8 0		2 0 0	
Wheat (fed green)	1 0 0		..	..	10 0 0		80 0 0	
<i>Bajra</i>	0 4 0		..	..	1 0 0		4 0 0	
<i>Swank-bajra</i>	0 2 8		..	..	2 0 0		4 12 10	
<i>Chari-maize</i>	0 5 13		..	..	2 8 0		14 2 0	
Wheat, <i>methe</i>	0 2 8		..	..	2 0 0		1 12 10	
Turnips, carrots	0 1 13		..	..	2 0 0		3 4 10	
Turnips	0 4 0		..	..	4 0 0		16 0 0	
<i>(b) Batai—</i>								
Maize- <i>swank</i>	0 3 5		..	..	4 0 0		13 0 0	
<i>Bajra</i>	0 2 6		..	..	1 0 0		2 4 10	
Barley	0 2 6		..	..	0 8 0		1 2 5	
Turnips	0 6 6		..	..	4 0 0		25 3 2	
Carrots	0 0 5		..	..	5 0 0		1 4 0	
Maize	0 2 5		3	4	2 0 0		6 3 2	
„ stalks .. ..	..		..	..	..		1 0 0	
Wheat	1 7 3		13	0	1 10 6		21 8 6	
„ <i>bhusa</i> .. ..	..		16	0	0 8 0		8 0 0	
<i>Total</i>	12 4 12		..	..	..		297 4 2	

(Continued).

	Rs.	a.	p.	Rs.	a.	p.	Part VII. C.
Brought forward				297	4	2	

ADD THE FOLLOWING PAID IN KIND—

1. *Harvesting* (Wheat only)—

For rented area, 3 bundles	..	..	2	11	10		
For <i>batai</i> land, 1 bundle	..	..	0	14	7		
							3 10 5

2. *Winnowing*—

<i>Blusa</i> from <i>batai</i> land, 1 maund @ Rs. -/8/- per maund	0 8 0
---	----	----	----	----	----	----	-------

3. *Kamins*—

<i>Rented</i>	{	Maize, 20 seers @ Rs. 2/- per maund	1	0	0		
		Wheat, 60 ,, @ Rs. 1/10/6 ,, ..	2	7	9		
		,, , 6 bundles	5	7	7		
<i>Batai</i>	{	Maize, 10 seers @ Rs. 2/- per maund	0	8	0		
		Wheat, 30 ,, @ Rs. 1/10/6 ,, ..	1	3	10		
		,, , 3 bundles	2	11	10		
			—	—	—		13 7 0
							<u>314 13 7</u>
							<u>314 13 7</u>

Gross Income

ANALYSIS OF EXPENDITURE.

				Rs. a. p.	Rs. a. p.
Part 1.	<i>Land Revenue—</i>	..	..	..	36 1 6
VII.					
C. 2.	<i>Upkeep of Bullocks—</i>				
	<i>Bhusa consumed, 223 maunds @ Rs. -/5/3 per</i>				
	maund	..	..	73 2 9	
	(Green fodder	..	..	158 9 4	
	Total fodders	..		231 12 1	
	Total stock on the farm—7½ animals.				
	Bullocks - 4.				
	Bullocks' share of fodders 8/15ths	..		123 9 8	
	Concentrates fed to bullocks	..		43 6 0	
	Interest and depreciation at 20 % on Rs.495/-	..		99 0 0	
					265 15 8
3.	<i>Well and Persian wheel—</i>				
	Persian wheel—				
	Depreciation at—				
	25 % on Rs. 5/-, the value of <i>lath</i>	..		1 4 0	
	4 % on Rs. 72/-, <i>chakla</i> and <i>chakli</i>	..		2 14 1	
	12 % on Rs. 7/-, other wooden parts	..		0 13 5	
	10 % on Rs. 105/-, boring	..		10 8 0	
	Interest @ 8 per cent. on Rs. 189/-	..		15 1 11	
	Repairs	..		0 14 0	
	Total	..		31 7 5	
	The tenant cultivated 3/8ths of land on this well			11 12 9	
	Oil for lubrication	..		0 12 0	
	Payments to the potmaker for supplying buckets	..		4 0 6	
					16 9 3
4.	<i>Implements—Hand tools and ploughshares purchased</i>	..			3 2 0
5.	<i>Seeds—</i>				
	Maize	..	..	6 0 0	
	Jowar	..	..	0 5 3	
	Bajra	..	..	1 2 9	
	Svank	..	..	0 2 6	
	Wheat	..	..	12 14 0	
	Barley	..	..	1 0 9	
	Turnips	..	..	1 10 0	
	Carrots	..	..	0 1 6	
	Methe	..	..	0 10 0	
					23 14 9
	Carried over	..			345 11 2

	Rs. a. p.	Rs. a. p. Part VII. C.
Brought forward	..	345 11 2
6. <i>Harvesting</i> —For details see Income Statement—	..	3 10 5
7. <i>Winnowing</i> (Wheat @ 2½ seers per maund winnowed)—		
For rented land, 2 maunds @ Rs. 1/10/6 per maund	3 5 0	
For <i>batai</i> land, 32 seers @ Rs. 1/10/6 per maund	1 5 2	
<i>Bhusa</i> , 1 maund @ Rs. -/8/- per maund ..	0 8 0	
	-----	5 2 2
8. <i>Kamins</i> (Carpenter and Blacksmith)—		
(a). <i>Rented</i> —		
Maize, 8 seers @ Rs. 2/- per maund ..	0 6 5	
Wheat, 32 ,, @ Rs. 1/10/6 ,, ..	1 5 2	
,, , 4 bundles	3 10 5	
Green fodder, 2 ,, @ Rs. -/2/- per bundle	0 4 0	
(b). <i>Batai</i> —		
Maize, 4 seers @ Rs. 2/- per maund ..	0 3 2	
Wheat, 16 ,, @ Rs. 1/10/6 ,, ..	0 10 7	
,, , 2 bundles	1 13 3	
Green fodder, 1 bundle @ Rs. -/2/- per bundle	0 2 0	
	-----	8 7 0
9. <i>Miscellaneous</i> —		
Paid to potmaker, wheat @ 1¼ seers per maund for transporting grain to the store—		
Rent land, wheat 40 seers @ Rs. 1/10/6 per md.	1 10 6	
<i>Batai</i> land, ,, 16 ,, @ Rs. 1/10/6 ,,	0 10 7	
<i>Muhassal</i> was given—		
Wheat, 16 seers @ Rs. 1/10/6 per maund ..	0 10 7	
Maize, 4 ,, @ Rs. 2/- ,, ..	0 3 2	
<i>Bhusa</i> , 80 ,, @ Rs. -/8/- ,, ..	1 0 0	
		4 2 10
<i>Total Expenditure</i>	..	----- 367 1 7 -----

EXPENDITURE.

Part
VII.
C.

	TOTAL.						PER ACRE					
	Landlord.		Tenant.		Total.		Landlord.		Tenant.		Total.	
	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.
Land Revenue ..	36	1 6	..	..	36	1 6	1	6 5	..	..	1	6 5
Upkeep of Bullocks	..	..	265	15 8	265	15 8	..	..	10	5 0	10	5 0
Well and Persian wheel.	12	6 10	4	2 5	16	9 3	0	7 8	0	2 7	0	10 3
Implements ..	..	..	3	2 0	3	2 0	..	..	0	1 11	0	1 11
Seed ..	..	..	23	14 9	23	14 9	..	..	0	14 10	0	14 10
Harvesting ..	0	7 3	3	3 2	3	10 5	0	0 3	0	2 0	0	2 3
Winnowing ..	0	13 3	4	4 11	5	2 2	0	0 6	0	2 8	0	3 2
<i>Kanins</i> ..	1	1 10	7	2 2	8	7 0	0	0 10	0	1 5	0	5 3
Miscellaneous ..	1	1 6	3	1 4	4	2 10	0	0 8	0	1 11	0	2 7
<i>Total</i> ..	52	3 2	311	11 5	367	1 7	2	0 1	12	3 4	11	3 8

SUMMARY.

				A. K. M.
Area held ..	..	..	25	6 8
Area cropped ..	..	..	12	4 12
Intensity of cropping ..	..	..	48.7	per cent.

	TOTAL.						PER ACRE.					
	Gross income.		Expenditure.		Net income.		Gross income.		Expenditure.		Net income.	
	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.
Landlord ..	155	5 0	52	3 2	103	1 10	6	0 4	2	0 4	4	0 0
Tenant ..	159	8 7	314	14 5	-155	5 10	6	2 11	12	3 4	-6	0 5
<i>Total</i> ..	314	13 7	367	1 7	-52	4 0	12	3 3	14	3 8	-2	0 5

PART VIII.

Accounts of a farm of 27 $\frac{1}{4}$ acres in

the Lyallpur District farmed by

Batai Cultivation during the year

1st July 1930 to 30th June 1931.

PART VIII.

The accounts of this holding were kept for the sixth time during the present year. The previous years' accounts will be found in Rural Section Publications Nos. 15, 19, 20, 21 and 24 of the Board of Economic Inquiry, Punjab.*

From the labour sheet it will be seen that the work done in connection with cultivation was equivalent to 21·7 days of one man and 8·7 days of one pair of bullocks per acre against 20·7 and 8·0 days, respectively, for last year. The intensity of cropping averaged 107·3 per cent. as against 111·3 and 110·4 per cent. during 1928-29, and 1929-30, respectively

The tenant maintained two pairs of working bullocks on this holding for the cultivation of land. One of these bullocks worth Rs. 40/- died at the end of August and another was bought for Rs. 120/- to replace it. The cost of upkeep of the bullocks amounted to Rs. 13/14/3 per acre as compared with Rs. 12/10/2 last year. The high figure this year is due to the additional expense incurred through the death of a bullock.

Four able-bodied male members of the family worked on the holding; no permanent labourer being engaged to assist them in farm work. Casual labour was, however, employed whenever needed at the harvesting time of some of the crops. Cotton pickers' charges amounted to 1/11th of the total produce, whilst the *jhoka* was given 1 seer per maund of *gur* produced. The *lavas* engaged for the harvesting of wheat were paid 24 bundles. Wheat and gram were winnowed at 5 per cent. of the produce winnowed.

There is a very great decrease in the income derived from the holding. During the previous five years the gross income was never below Rs. 57/- per acre, whilst this year it is only Rs. 35/11/11 per acre. There has not been much variation in the expenses of cultivation during this period of 6 years. The total expenditure this year was Rs. 30/13/3 per acre to which the landlord contributed only Rs. 6/15/6 per acre. The financial result shows that the landlord had a net return of Rs. 10/14/6, while the tenant suffered a loss of Rs. 5/15/10 per acre.

**Ibid.* pages 1-5, 1-9, 1-8, 199-207 and 151-60, respectively.

Labour Sheet showing the number of Days' Work performed by Men and Bullocks throughout the Year.

	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total days.	Days per acre.
Farm cultivation ..	45.6	59.5	51.1	41.0	41.8	44.0	46.5	40.0	48.2	86.8	53.5	34.0	592.0	21.7
Other work ..	5.7	1.9	10.8	4.4	5.0	1.7	1.0	2.3	1.6	1.0	2.0	1.7	39.1	..
Work done outside ..	..	..	2.3	6.0	10.0	10.5	12.8	17.2	7.3	2.6	..	5.0	73.7	..
Bullock cultivation ..	27.0	41.0	20.2	19.1	27.5	18.3	11.3	15.3	21.8	9.0	28.0	..	238.5	8.7
Bullocks on other work ..	1.7	1.9	1.5	4.4	3.5	1.7	1.0	2.3	1.6	1.0	2.0	1.7	24.3	..
Bullocks working outside ..	..	..	1.5	4.0	6.0	7.0	8.5	11.5	6.0	..	..	5.0	49.5	..

INCOME.

A. K. M.
Area held—27 2 10Part
VIII.

Crop.	Area.	Outturn.		Rate	Value.
		A. K. M.	Mds. Srs.	per maund.	
				Rs. a. p.	Rs. a. p.
Cotton ..	2 2 0	8 6		4 8 0	36 10 10
Sugarcane (<i>gur</i>) ..	2 1 7	54 10		4 14 0	264 7 6
Maize ..	2 0 8	40 10		0 11 6	28 14 11
„ stalks ..	..	..		..	8 3 2
Wheat ..	13 4 0	133 20		1 5 0	175 3 6
„ <i>bhusa</i> ..	..	170 0		0 4 0	42 8 0
Gram ..	2 1 16	21 24		1 15 0	41 13 7
„ <i>bhusa</i> ..	..	25 0		0 2 0	3 2 0
<i>Sarson</i> ..	0 4 10	5 4		4 1 0	20 11 6
Tobacco ..	0 2 10	7 30		8 0 0	62 0 0
Chillies and other vegetables	0 1 6	Consumed in the household			..
<i>Chari, guara, moth</i> ..	2 1 16	..	Per knd.	6 0 0	106 12 10
Maize, <i>bajra</i> ..	0 4 10	..		5 8 0	24 12 0
<i>Senji</i> ..	2 1 6	..		2 0 0	34 9 7
Lucerne ..	0 4 12	..		10 4 0	47 2 5
<i>Methe</i> ..	0 4 10	Failed.		..	..
Maize (in sugarcane) ..	..	..	..	..	4 5 5
<i>Total</i> ..	29 2 11	..	..	..	901 5 3

ADD THE FOLLOWING PAID IN KIND—

1. <i>Harvesting</i> —		Rs. a. p.
Cotton, 32½ seers ..	..	3 10 6
<i>Gur</i> to <i>jhoka</i> , 1 maund 16 seers ..	..	5 13 3
Wheat, 24 bundles @ Rs. -/11/2 per bundle		16 12 0

		26 3 9
2. <i>Winnowing</i> —		
Wheat, 6 maunds 27 seers ..	..	8 12 2
Gram, 1 maund 3 „ ..	..	2 1 4

		10 13 6
3. <i>Kamins</i> —		
<i>Gur</i> , 10 seers ..	..	1 3 6
Cotton, 4 „ ..	..	0 7 2
Maize, 3 maunds 8 seers ..	..	2 4 10
„ , 5 bundles @ Rs. -/5/- per bundle ..	..	1 9 0
Wheat, 4 maunds ..	..	5 4 0
„ , 7 bundles @ Rs. -/11/2 per bundle ..	..	4 14 2

		15 10 8
4. <i>Kept for seed</i> —		
Sugarcane, 10 <i>marlas</i> @ Rs. 1/8/- per <i>marla</i>		15 0 0
Maize cobs, 15 maunds @ Rs. -/7/8 per maund		7 3 0

		22 3 0

<i>Gross Income</i> ..		976 4 2

ANALYSIS OF EXPENDITURE.

		Rs. a. p.			Rs. a. p.				
Part VIII.	1. Land Revenue and Water Rates—								
	Land Revenue	..	..	..	206	5	6		
	Water Rates	..	..	..	130	4	0		
								336	9 6
	2. Seed—								
	Cotton	..	..	..	0	8	0		
	Sugarcane	..	..	..	18	0	0		
	Maize	..	..	..	1	0	0		
	Wheat	..	..	..	15	15	0		
	Gram	..	..	..	2	6	6		
	Sarson	..	..	..	0	2	0		
	Chari, guara, moth, etc.	..	..	..	5	8	0		
	Senji	..	..	..	5	0	0		
	Methe	..	..	..	0	14	6		
	Chillies and other vegetables	..	..	..	0	12	0		
	Tobacco	..	..	..	0	4	0		
								50	6 0
	3. Upkeep of Bullocks -								
	Last year's wheat <i>bhusa</i>	..	..	..	135	0	0		
	" gram "	..	..	..	5	0	0		
	Green fodders	..	..	..	217	10	3		
	Maize stalks	..	..	..	8	3	2		
	Total fodders	..	..	..	365	13	5		
	Total adult stock -9 animals.								
	Bullocks, 4.								
	Bullocks' share of fodders—4/9ths	..	..	..	162	9	6		
	Concentrates and medicines	..	..	..	89	3	8		
	Interest and depreciation at 20 % on								
	Rs. 335/-	..	..	..	67	0	0		
	Rs. 120/- for 10 months	..	..	..	20	0	0		
	Interest at 8% on Rs. 40/- for 2 months	..	..	..	0	8	6		
	Casualty, one bullock	..	..	..	40	0	0		
								379	5 8
	Carried over							..	
								766	5 2

				Rs. a. p.	Rs. a. p.	Part VIII.
	Brought forward			..	766 5 2	
4. Harvesting—						
	For details see Income Statement—	..	..		26 3 9	
5. Winnowing—						
	For details see Income Statement—	..	..		10 13 6	
6. Kamins—						
	<i>Gur</i> , 4 seers	..	..	..	0 7 10	
	Cotton, 4 ,,	..	..	..	0 7 2	
	Maize, 1 maund 24 seers	..	..	..	1 2 5	
	Wheat, 1 ,, 24 ,,	..	..	..	2 1 7	
	,, , 3 bundles @ Rs. -/11/2 per bundle	..	..	..	2 1 6	
	Maize, 2 ,, @ Rs. -/5/-	..	..	..	0 10 0	
						6 14 6
7. Implements—						
	Interest and depreciation at 20 % on			Rs. a. p.		
	Rs. 35/- cart	..	..	..	7 0 0	
	Replacements and repairs	..	..	..	19 0 0	
	Butter for lubrication of cart	..	..	..	1 0 0	
						27 0 0
8. Miscellaneous—						
	Casual labour	..	..	..	3 0 0	
	Oil	..	..	..	1 10 8	
						4 10 8
	Total Expenditure	..	..	..		<u>841 15 7</u>

EXPENDITURE.

Part.
VIII.

	TOTAL.				PER ACRE.		
	Landlord.		Tenant.		Landlord.	Tenant.	Total.
	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.	Rs. a. p.
Land Revenue ..	103	2 9	103	2 9	3 12 5	3 12 5	7 8 10*
Water Rates ..	65	2 0	65	2 0	2 6 2	2 6 2	4 12 4
Seed ..	..		50	6 0	..	1 13 6	1 13 6
Upkeep of Bullocks ..	..		379	5 8	..	13 14 3	13 14 3
Harvesting ..	13	1 11	13	1 10	0 7 8	0 7 8	0 15 4
Winnowing ..	5	6 9	5	6 9	0 3 2	0 3 2	0 6 4
<i>Kamins</i> ..	3	7 3	3	7 3	0 2 1	0 2 1	0 4 2
Implements ..	..		27	0 0	..	0 15 10	0 15 10
Miscellaneous ..	..		4	10 8	..	0 2 8	0 2 8
<i>Total</i> ..	190	4 8	651	10 11	6 15 6	23 13 9	30 11 5

*During this year Rs. 59/15/0 were charged by government as *malikana*, for the square granted to the landlord as *lambardari*. If this were excluded, land revenue works out at Rs. 5/9/0 per acre.

SUMMARY.

A. K. M.

Area held ..	..	..	27 2 10
Area cropped ..	..	..	28 2 11
Intensity of cropping ..	..	..	107.3 per cent.

	TOTAL.			PER ACRE.		
	Gross Income.	Expenditure.	Net income.	Gross income.	Expenditure.	Net income.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Landlord ..	488 2 1	190 4 8	297 13 5	17 14 0	6 15 6	10 14 6
Tenant ..	488 2 1	651 10 11	—163 8 10	17 13 11	23 13 9	—5 15 10
<i>Total</i> ..	976 4 2	841 15 7	134 4 7	35 11 11	30 13 3	4 14 8

PART IX.

Accounts of a farm of 28 acres in the

Lyallpur District farmed by Direct

Cultivation on the *Siri* System

during the year

1st June 1930 to 31st May 1931.

PART IX.

The accounts of this holding for the five previous years will be found in the publications of 1925-26, 1926-27, 1927-28, 1928-29 and 1929-30 of this series.* Part IX.

The area under cultivation was the same as last year; it was again farmed on the *siri* system, the two *siri* labourers receiving one-fifth of the produce of each crop, except fodders and *bhusa*, and paying the same share of the land revenue and water rates. The following special features call for remark :—

(a). Three good bullocks worth Rs. 600/- were kept on the farm for cultivation work throughout the year as against four—the usual number for a square. Their cost of upkeep has fallen considerably this year and is only Rs. 9/2/2 per acre as against Rs. 13/7/0 and Rs. 16/3/9 per acre in 1929-30 and 1928-29, respectively.

(b). The income statement will show that a good deal of change has been effected this year in the cropping scheme of the land. The area under cotton and wheat has been reduced considerably, probably on account of the heavy fall in the prices of these commodities. This has affected the farm in two ways.

The total land revenue and water rate charges have gone down from Rs. 328/- in 1928-29 and Rs. 312/5/6 in 1929-30 to Rs. 231/3/0 this year. This means a saving of about Rs. 80/- under this head.

The intensity of cropping practised was considerably lower than that followed in previous years. The figures for the last four years are shown below :—

			<i>Per cent.</i>
1926-27 . . . . .	..	..	97.50
1927-28 . . . . .	..	..	88.02
1928-29 . . . . .	..	..	106.15
1929-30 . . . . .	..	..	98.70

(c). Wheat gave a poor outturn on account of the poor water supply available during its growing period.

During the present year 1½ *killas* of wheat were harvested by daily paid labour at the usual rate of 4 bundles per *killa*. The remainder of the wheat crop and all other crops, with the exception of cotton, were harvested by the farmer and his *siris* (partners).

* *Ibid.* pages 7-14, 11-20, 9-14, 209-16 and 161-67, respectively.

Part IX. The cotton pickers were paid on an average one-tenth of the total produce. The *jhoka* was also paid in kind at 2 seers per maund of *gur* and the winnowing charges for wheat, gram and *sarson* were calculated at 2 seers and $1\frac{1}{2}$ seers per maund, respectively.

As mentioned before, wheat gave a poor outturn while the area under this crop and cotton was subnormal. Sugarcane lodged badly, and yielded *gur* of poor quality, these factors coupled with very low market prices gave a gross income of only Rs. 29/8/11 per acre. The expenses of cultivation were Rs. 25/7/2 per acre, thus leaving a net income of Rs. 4/1/9 only. The gross income is very low but the cultivator by effecting a good deal of economy on the expenditure side, was able to make both ends meet and leave a little net income for his labour. The two *siris* received only Rs. 84/10/11 after paying their share of land revenue and water rates. This means an income of Rs. 0/1/10 per man, per day, for their work.

INCOME.

A. K. M.
Area held—27 6 8

Part
IX.

Crop.	Area.	Outturn.		Rate per maund.			Value.		
		A. K. M.	Mds.	Srs.	Rs.	a.	p.	Rs.	a.	p.
Cotton, <i>desi</i>	3 6 3	35	0	4	3	9	148	3	3
„ American	0 4 9	9	10	6	0	0	55	8	0
Sugarcane (<i>gur</i>)	1 1 4	35	8	2	4	0	79	3	2
Maize	1 0 18	17	0	1	6	0	23	6	0
„ stalks .. ..	.. ..	..	..	..	..	..	6	0	0
Jowar (in maize) .. ..	.. ..	3	6	1	12	0	5	8	2
Wheat	8 2 17	92	20	1	5	0	121	6	6
„ <i>bhusa</i> .. ..	.. ..	145	0	0	4	0	36	4	0
Gram	1 0 18	13	20	1	14	0	25	5	0
„ <i>bhusa</i> .. ..	.. ..	15	0	0	5	0	4	11	0
Sarson	0 4 7	4	0	4	0	0	16	0	0
„	0 4 7	..	..	5	0	0	21	12	0
„	1 0 18	..	..	5	4	0	46	11	7
Turnip	0 4 7	..	..	4	12	0	20	10	7
<i>Senji</i>	0 4 9	..	..	5	0	0	22	4	0
<i>Chari</i>	3 2 5	..	..	5	0	0	131	4	0
Garden	0 1 2	..	..	..	..	..	..	..	..
<i>Total</i>	22 6 4	..	..	..	..	..	764	1	3

ADD THE FOLLOWING PAID IN KIND—

1. *Harvesting*—

Cotton, <i>desi</i> , 3 maunds 36 seers	Rs.	a.	p.	
	16	8	3	
Cotton, American, 1 maund	6	0	0	
<i>Gur</i> to <i>jhoka</i> , 1 maund 30 seers	3	15	0	
Wheat, 6 bundles @ Rs. 0/10/10 per bundle..	4	1	0	
				30 8 3

2. *Winnowing*—

Wheat, 4 maunds 35 seers	6	6	5	
Gram, 21 seers	0	15	9	
Sarson, 6 „	0	9	7	
				7 15 9

3. *Kamins*—

Wheat, 11 maunds 8 seers	14	11	2	
„ „ 7 bundles @ Rs. -/8/1 per bundle ..	3	8	7	
Maize, 2 „ @ Rs. -/7/- „ „ ..	0	14	0	
				19 1 9

Gross Income .. 821 11 0

ANALYSIS OF EXPENDITURE.

			Rs.	a.	p.	Rs.	a.	p.	
Part 1. Land Revenue and Water Rates—									
IX.									
Land Revenue	..	..	..	124	6	6		
Water Rates	..	..	..	106	12	6		
				<hr/>					
		Total	..	231	3	0			
<i>Less 1/5th paid by siri's</i>	..	..	..	46	3	10		
Net amount paid by cultivator				184	15	2
2. Labour—									
Paid to <i>siri</i> labourers :—									
1/5th Cotton, <i>desi</i> , produced	..	..	..	29	10	3		
„ „ „ American „	..	..	..	11	1	7		
„ Sugarcane	..	..	..	15	13	5		
„ Maize	..	..	..	4	10	10		
„ Wheat	..	..	..	24	4	6		
„ Gram	..	..	..	5	1	0		
„ <i>Sarson</i>	..	..	..	3	3	2		
Maize, 10 maunds 32 seers (for food)	..	..	..	14	13	7		
Wheat, 10 „ 32 „ „	..	..	..	22	4	5		
				<hr/>			130	14	9
3. Upkeep of Bullocks—									
<i>Bhusa</i> from last year's crop	..	..	..	77	4	0		
Green fodders fed	..	..	..	220	14	2		
Maize stalks	..	..	..	6	0	0		
Grass and cane tops	..	..	..	22	0	0		
				<hr/>					
		Total fodders	..	326	2	2			
Total adult stock—11 animals.									
Bullocks, 3.									
Bullocks' share of fodders—3/11ths	..	..	..	88	15	2		
Concentrates (gram and wheat flour)	..	..	..	43	8	0		
Miscellaneous	..	..	..	1	8	0		
Interest and depreciation at 20 % on Rs. 600/-	..	..	..	120	0	0		
				<hr/>			253	15	2
		Carried forward	..				259	13	1

				Rs. a. p.	Rs. a. p.	Part IX.
Brought forward				..	569 13	1
3. <i>Seed—</i>						
	Cotton	..	..	0 13 6		
	Sugarcane	..	..	16 0 0		
	Maize	..	..	0 5 0		
	Jowar	..	..	0 6 0		
	Wheat	..	..	12 8 0		
	Gram	..	..	1 3 3		
	, Sarson	..	..	0 12 0		
	Turnip	..	..	0 6 0		
	Senji	..	..	0 12 0		
	Chari	..	..	6 8 0		
					39 9	9
5. <i>Harvesting—</i>	For details see Income Statement—			..	30 8	3
6. <i>Winnowing—</i>	For details see Income Statement—			..	7 15	9
7. <i>Kamins—</i>						
	Wheat, 1 maund 8 seers	..	..	1 9 2		
	,, , 4 bundles @ Rs. -/8/1 per bundle	..	..	2 0 4		
	Maize, 1 maund 8 seers	..	..	1 10 5		
	,, , 2 bundles @ Rs. -/7/-	..	..	0 14 0		
	Chari fodder, 2 bundles @ Rs. -/2/6	..	..	0 5 0		
	Senji ,, , 3 ,, @ Rs. -/3/-	..	..	0 9 0		
					6 15	11
8. <i>Implements—</i>						
	Interest and depreciation at 18 per cent. on Rs. 250/-, cart.			45 0 0		
	Repairs to fodder cutter	..	..	4 0 0		
	Replacements and repairs to other implements			3 8 6		
					52 8	6
	<i>Total Expenditure</i>			..	<u>707 7</u>	<u>3</u>

EXPENDITURE.

Part
X.

	Total.			Per Acre.		
	Rs.	a.	p.	Rs.	a.	p.
Land Revenue	99	8	5	*3	9	3
Water Rates	85	6	9	*3	1	2
Labour	130	14	9	4	11	4
Upkeep of Bullocks	253	15	2	9	2	2
Seed	39	9	9	1	6	10
Harvesting	30	8	3	1	1	7
Winnowing	7	15	9	0	4	7
Kamins	6	15	11	0	4	0
Implements	52	8	6	1	14	3
<i>Total</i> ..	<i>707</i>	<i>7</i>	<i>3</i>	<i>25</i>	<i>7</i>	<i>2</i>

*Actually land revenue and water rates were paid at Rs. 4/7/8 and Rs. 3/13/5 per acre, respectively.

SUMMARY.

			A. K. M.		
Area held .. ..	..	..	27	6	8
Area cropped .. ..	..	..	22	6	4
Intensity of cropping .. ..	..	..	81.92 per cent.		
			Total.		
			Rs.	a.	p.
Gross income .. ..	..	..	821	11	0
Expenditure .. ..	..	..	707	7	3
Net income			114	3	9
			Per acre.		
			Rs.	a.	p.
Gross income			29	8	11
Expenditure			25	7	2
Net income			4	1	9

PART X.

Accounts of an area of 802·5 acres in the

Lyallpur District farmed by *Batai*

Cultivation during the year

1st June 1930 to 31st May 1931.

PART X.

This is the fifth year of keeping the accounts of all tenants ^{Part X.} working on this farm. The first two years' records appeared as Parts IV. of the publications of 1926-27 and 1927-28,* while those of the third and fourth years, appeared in Part X. of the last two years' publications.†

The cultivated area was the same as last year, *i. e.*, 802 acres 5 *kanals*, but the number of holdings into which it was divided was 39 instead of 40. Of the tenants, 1 to 20 had two ploughs each, while 21 to 39 had only one plough each, thus making a total of 59 against 60 in previous years. The intensity of cropping in the case of individual tenants varied from 95·4 to 114·45 per cent. The average intensities of cropping for the five years are shown below :—

		<i>Per cent.</i>
1926-27	..	109·50
1927-28	..	108·00
1928-29	..	104·16
1929-30	..	104·95
1930-31	..	104·47

Cultivation work averaged 20·4 days of one man and 8·2 days of a pair of bullocks, per acre, of holding. The former figure is equal to the corresponding figure of last year, while the latter is slightly lower, *i. e.*, 8·2 against 8·8. The manual labour in case of individual tenants varied from 14·3 to 32·1 days per acre, while bullock labour varied from 5·3 to 10·7. It is interesting to note that the minimum figures for bullock and manual work are for the same tenant, *i. e.*, No. 38. From the statement showing the income and expenditure of all tenants it will be noticed that, as last year, his gross income is also the least and he suffers a maximum loss of Rs. 9/3/1 per acre. One of his bullocks worth Rs. 70/- died during the year.

The tractor worked for a much shorter period this year ; the work thus done was calculated to be equivalent to only 46·3 days of one man and one pair of bullocks against 257·20 days last year. This, as in previous years, has been added to the manual as well as bullock labour spent on cultivation.

Exceptionally low prices of produce is the outstanding feature of the year, *e. g.*, wheat was Rs. 1/9/0 per maund against Rs. 3/2/0 last year. As a result, the gross income was reduced to little more

**Ibid.* pages 45-58 and 39-55.

†*Ibid.* pages 217-33 and 169-85.

Part than half of what it has been in previous years. Below is given a
X. table which shows the gross income, expenditure, and net income per acre for the last 5 years :—

Year.		Gross income.	Expenditure.	Net income.
		Rs. a. p.	Rs. a. p.	Rs. a. p.
1926-27	.. ..	95 7 10	36 4 11	59 2 11
1927-28	.. ..	95 10 4	41 4 5	54 5 11
1928-29	.. ..	99 15 10	38 12 1	61 3 9
1929-30	.. ..	91 14 4	40 10 9	51 3 7
1930-31	.. ..	50 10 11	32 2 0	18 8 11

It will be seen that the gross income during the year, as compared with the previous four years, has been reduced by 47 per cent. The expenditure was brought down by only 18 per cent., with the result that the net income was only one-third of the average for the last four years.

The cost of weighing the farm produce before division and of taking it to the store was borne by the tenants not only in the case of cotton, wheat and gram, but also *toria*. This amounted to $\frac{1}{4}$ seer per maund of produce weighed and was paid in cash in the case of cotton, but in kind, for other crops ; in all it amounted to Rs. 0/3/6 per acre.

It was mentioned last year that as the tenants had to bear all the *kamins'* charges, they employed another man who could work as a carpenter and a blacksmith. But this year the old *kamins'* carpenter and blacksmith, who were not employed by the tenants during 1929-30, again took over the *sepi* work of the tenants. The payments made to each of them, per square of land, are given below :—

	Seers.
Maize	30
Gur	4
Cotton	2 $\frac{1}{2}$
Wheat	50
Bhusa	40

In addition, the blacksmith received two bundles of *khurif* and two of *rabi* fodders. As the carpenter had no animal, he

did not get any green fodder. Owing to the low prices these payments were only Rs. 0/4/10 per acre as against Rs. 0/9/0 last year; they were borne entirely by the tenants. Part
X.

The cost of upkeep of bullocks averaged Rs. 13/14/10 per acre against Rs. 16/11/6 in the previous year. This difference is mainly due to the low prices of *bhusa* and concentrates fed to the animals. The figure would have been still lower had it not been for the fact that there were seven casualties among the bullocks; their value, amounting to Rs. 800/-, had to be written off.

Sodium nitrate, supplied free by the Chilean Nitrate Committee, was applied to cotton and wheat: its value was Rs. 70/3/9. In the case of cotton it increased the yield by about one and a half maunds and resulted in a small profit, but with wheat the value of the increased yield was not enough to cover the cost of the manure as the price of wheat was abnormally low. The cost of the sodium nitrate has not been included in the expenditure.

The management expenses incurred by the landlord worked out at Rs. 5/4/3 per acre against Rs. 5/14/6 in 1929-30. This is low, because less was spent on contingencies during the year. The upkeep of implements cost the landlord Rs. 1/6/2 per acre and the tenants Rs. 1/1/3. Expenses for harvesting were borne equally by the landlord and tenants. The general practice of payment to *lavas* employed for harvesting wheat is in the form of bundles, but tenant No. 14, who had invited 64 men from the town to assist him, spent Rs. 65/- in entertaining them; the landlord allowed him 42 bundles of wheat from the common share, hence the value of 21 bundles which was his share, was only Rs. 18/1/3. This caused some difference in the average relative shares of the landlord and tenants on the costs of harvesting, which were Rs. 0/13/3 and Rs. 0/13/11 per acre, respectively. The cost of winnowing was borne equally and came to Rs. 0/6/0 per acre each.

Six of the tenants employed one permanent labourer each, another engaged a boy for the whole year, while three other tenants engaged labourers for three, four and six months, respectively. The total number of able-bodied members of tenants' families, who carried on cultivation work without any visible payment was 87½.

The cost of *berseem* seed was borne entirely by the landlord as no share from its produce was to be given to the tenants. The seed rate for this was 12 seers per acre and its cost was 12 annas per seer. In exchange for this the tenants were allowed an equal area of *rabi* fodders, from which the landlord took no share. The cost of seed of this fodder and of all the *kharif* crops was borne by the tenants, and as they were hit hard by the low prices the landlord

Part X. helped them by bearing half the cost of the *rabi* seeds. The total cost of seed borne by the landlord and tenants was Rs. 0/10/3 and Rs. 1/4/9 per acre, respectively.

As the land belongs to Government, no land revenue is paid and none has, therefore, been shown in the expenditure. As in previous years the whole water rate was paid by the tenants, and owing to the depression in agriculture a remission of five annas per rupee was allowed by Government in land revenue, and three annas per rupee in the *rabi* water rates of wheat. The water rates actually paid were Rs. 4/11/10 per acre against Rs. 5/4/2 last year.

As has already been stated the gross income from the holding was Rs. 50/10/11 per acre. The landlord kept all the *berseem* green fodder as well as grain, while the tenants were allowed an equal area of *rabi* fodders, which were valued and added to their income. This alone is responsible for the slight difference in the gross income of landlord and tenants. With this exception, all the produce was equally divided between the landlord and the tenants. Of the gross income thus divided, the landlord received Rs. 25/3/0 and the tenants Rs. 25/7/11 per acre of holding. The former's expenses were Rs. 8/7/11 leaving him with a net income of Rs. 16/11/1 per acre. The tenants' expenditure averaged Rs. 23/10/1 leaving each net income of only Rs. 1/13/10 per acre, an extremely low return. The relative income and expenditure, per acre, of all tenants during the five years are given in the following table :—

Year.	LANDLORD.			TENANTS.		
	Gross income.	Expenditure.	Net income.	Gross income.	Expenditure.	Net income.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1926-27 ..	47 11 11	8 4 1	39 7 10	47 11 11	28 0 10	19 11 1
1927-28 ..	47 11 6	10 2 5	37 9 1	47 14 10	31 2 0	16 12 10
1928-29 ..	50 10 7	11 10 0	39 0 7	49 5 3	27 2 1	22 3 2
1929-30 ..	46 5 11	10 0 1	36 5 10	45 8 5	30 10 8	14 13 9
1930-31 ..	25 3 0	8 7 11	16 11 1	25 7 11	23 10 1	1 13 10

The net income of the landlord was only about 44 per cent. of the average net income for the previous four years ; in the case of the tenants it was only about 1/10th. From the statement showing the income and expenditure of the tenants it is seen that 11 out of 39 tenants suffered a net loss varying from Rs. 16/0/9 to

Rs. 247/13/7 on their holdings. It may be remembered that in these calculations, the labour put in by the tenant or his family members has not been taken into account ; so that the net income is the reward for his labour. Thus some tenants not only received nothing for their labour but suffered financial losses. In the statement showing the daily earnings of tenants, the average net income of all family members of individual tenants vary from a net loss of Rs. 0/10/10 to a net profit of Rs. 0/14/9 per day with an average net income of Rs. 0/1/8. Divided by the number of family members it works out to an average of 9 pies, per day, per man. Considered, however, on the basis of the number of days worked the average net income of the family and of each individual member, is calculated at Rs. 0/3/7 and Rs. 0/1/7 per day worked, respectively. The greatest loss shown is Rs. 1/5/2 per day for one family. The best family of tenants on the other hand, earned Rs. 2/12/4 per day worked. Twenty-seven tenants earned an additional Rs. 276/14/6 by carting wheat, *bhusa* and *toria*. This has not been included in the gross income given in the statements ; it could not, however, materially alter their financial position. The average financial condition of the tenants is shown in the following statement, which gives their daily earnings for the past four years 1927-28 to 1930-31.

Year.	AVERAGE NET INCOME FOR THE FAMILY.		AVERAGE NET INCOME PER MAN.	
	Per day.	Per day worked.	Per day.	Per day worked.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1927-28	0 14 0	2 1 4	0 6 8	0 15 10
1928-29	1 2 6	2 7 4	0 8 10	1 2 8
1929-30	0 13 1	1 12 11	0 5 9	0 12 8
1930-31	0 1 8	0 3 7	0 0 9	0 1 7

For comparison with other private farms whose accounts are given in this publication, it should be noted that no land revenue has been paid for the land on this farm. The water rate was wholly paid by the tenants ; the landlord would have had to pay all the revenue if it had been private land. The land revenue on this farm is estimated to be about Rs. 7/0/9 and allowing for a general remission made this year, it should have been Rs. 5/11/8 per acre. This amount should be subtracted from the landlords' income when comparing it with other private farms.

TOTAL DAYS' WORK DONE DURING THE YEAR.

Tenants.	MEN.			BULLOCKS (ONE PAIR).			Tractor work days of one man and one pair of bullocks.	AVERAGE NUMBER OF DAYS' WORK DONE PER ACRE.	
	Farm cultivation.	Other work.	Labour performed outside.	Bullock cultivation, employment.	Other Work done outside.	Men.		Bullocks.	
1	571.8	22.3	92.4	265.3	11.4	41.2	..	18.4	8.5
2	545.4	29.0	35.9	260.4	14.8	10.9	..	19.3	9.2
3	629.0	23.5	58.1	299.1	11.9	29.4	12.8	22.5	10.7
4	523.8	26.6	73.0	246.8	16.4	32.8	..	18.8	8.9
5	639.3	27.1	50.2	230.2	11.4	16.1	13.4	23.0	8.3
6	672.7	24.5	40.7	285.7	16.8	19.8	..	24.3	10.3
7	548.3	39.5	47.4	225.9	21.9	26.6	..	19.8	8.2
8	545.9	44.0	59.0	196.4	19.4	19.1	..	19.8	7.1
9	672.5	35.0	78.5	232.1	12.7	31.9	..	24.4	8.4
10	561.6	13.3	49.0	236.0	9.8	27.1	..	20.4	8.6
11	567.7	30.1	106.5	261.7	13.6	49.1	..	20.7	9.6
12	536.5	31.2	54.7	225.7	15.7	30.4	..	19.6	8.2
13	864.7	32.8	140.6	204.2	22.4	70.3	..	32.1	7.6
14	561.7	17.3	49.9	254.5	10.6	21.3	12.3	21.0	9.5
15	486.2	20.8	39.8	228.3	15.4	24.0	..	18.2	8.5
16	566.2	24.2	12.9	213.2	17.6	6.5	..	21.8	8.2
17	524.2	42.8	12.2	173.3	22.2	2.4	..	20.8	6.8

(Continued).

(Concluded).

18	..	689.2	32.3	18.9	213.9	13.1	2.0	..	27.6	8.6
19	..	497.9	19.0	61.5	155.0	11.8	26.2	..	21.9	6.8
20	..	472.5	30.6	32.7	211.5	16.9	18.3	..	21.7	9.8
21	..	277.0	21.4	26.0	113.1	9.4	11.6	..	15.5	6.3
22	..	273.2	9.6	6.3	106.2	4.3	0.8	..	16.4	6.4
23	..	274.2	25.4	16.7	110.7	10.6	13.1	..	18.1	7.3
24	..	240.1	17.4	7.6	109.3	9.9	..	..	16.9	7.7
25	..	282.5	20.7	17.4	103.8	7.5	12.2	..	20.0	7.3
26	..	278.3	27.7	13.6	102.6	11.3	5.4	..	19.8	7.3
27	..	256.2	28.2	12.8	99.7	11.6	7.7	..	18.3	7.1
28	..	273.7	20.9	21.2	128.1	7.4	6.8	..	19.6	9.2
29	..	224.6	24.4	11.9	99.7	12.4	7.1	..	16.1	7.2
30	..	246.1	24.5	2.1	111.0	9.9	..	..	17.7	8.0
31	..	223.2	19.6	9.1	97.6	10.3	1.4	3.0	16.0	7.0
32	..	309.2	26.1	19.4	142.4	16.2	3.9	4.8	22.2	10.2
33	..	246.8	26.4	20.1	122.5	11.7	4.1	..	18.0	8.9
34	..	252.9	12.4	24.8	110.8	4.2	14.5	..	18.6	8.1
35	..	215.0	6.2	43.2	93.3	3.4	26.3	..	16.0	7.0
36	..	217.8	17.8	6.6	91.2	10.9	2.8	..	17.3	7.2
37	..	214.5	9.6	1.3	89.6	5.9	..	..	17.3	7.2
38	..	177.5	8.5	2.0	65.8	5.3	..	..	14.3	5.3
39	..	225.5	8.6	14.4	73.1	5.0	10.5	..	19.8	6.4
Total	..	16,385.4	921.3	1,300.4	6,589.7	473.0	633.6	46.3	20.4 <i>(average)</i>	8.2 <i>(average)</i>

TOTAL WORK DONE MONTHLY IN DAYS.

Month.	MEN.			BULLOCKS.			Tractor work.
	Farm cultivation.	Other work.	Labour performed outside.	Farm cultivation.	Other employment.	Work done outside.	
June	1,119-0	34-9	80-7	387-4	22-1	60-7	..
July	1,281-4	52-9	15-1	782-1	29-1	14-1	..
August	1,345-5	62-8	28-7	689-1	32-6	23-9	..
September	1,212-5	179-9	43-3	544-5	70-8	41-0	..
October	1,145-5	73-4	70-2	631-0	37-1	51-4	..
November	1,196-9	73-3	254-0	749-2	38-7	211-6	..
December	783-0	166-0	75-2	76-8	61-3	9-7	..
January	1,113-2	48-8	136-5	155-2	29-5	20-3	..
February	969-7	99-9	147-4	369-8	61-4	45-9	17-8
March	1,213-4	65-5	168-9	518-4	45-5	39-6	19-6
April	2,401-2	35-0	254-5	311-1	20-5	6-8	..
May	2,613-1	37-9	115-9	1,375-1	24-4	108-6	8-9
<i>Total</i>	<i>16,385-4</i>	<i>921-3</i>	<i>1,390-4</i>	<i>6,589-7</i>	<i>473-0</i>	<i>633-6</i>	<i>46-3</i>

AVERAGE WORK PER PLOUGH AREA MONTHLY IN DAYS.

Part X.

	June	July	August	September	October	November	December	January	February	March	April	May	Total days.	Average days per month.
Farm cultivation ..	.. 19.0	21.7	22.8	2.6	19.4	20.3	13.3	18.9	16.3	2.6	4.7	44.3	277.9	23.1
Other work ..	.. 0.6	0.9	1.1	3.0	1.2	1.2	2.8	0.8	1.5	1.1	0.6	0.6	15.4	1.2
Labour performed outside ..	.. 1.4	0.3	0.5	0.7	1.2	4.3	1.3	2.3	2.5	2.9	4.3	2.0	23.7	1.9
Bullock cultivation ..	.. 6.6	13.3	11.7	9.2	10.7	12.7	1.3	2.6	6.3	8.8	5.3	23.3	117.8	9.3
Other employment ..	.. 0.4	0.5	0.6	1.2	0.6	0.7	1.0	0.5	1.1	0.8	0.3	0.4	8.1	0.7
Bullocks working outside ..	.. 1.0	0.2	0.4	0.7	0.9	3.6	0.2	0.3	0.8	0.7	0.1	1.8	10.7	0.9
Tractor working days of one man and one pair of bullocks.	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	0.3	0.3	..	0.2	0.8	0.06

NOTE.—Tenants Nos. 1 to 20 had two ploughs each, while 21 to 39 had one plough each. Thus there are 59 ploughs in all.

INCOME AND EXPENDITURE OF THE ESTATE.

Tenant No.	Area held.		Area cropped.	Intensity of cropping.	Return.		Total.		Per Acre.	
	A. K. M.	A. K. M.			Rs. a. P.	Rs. a. P.	Rs. a. P.	Rs. a. P.	Rs. a. P.	Rs. a. P.
1	31 0 13	30 5 12	30 5 12	98.77	1,563 11 4	1,141 3 0	422 8 4	50 5 0	36 11 6	13 9 6
2	28 1 10	28 7 16	28 7 16	102.79	1,316 11 7	923 3 9	393 7 10	46 11 5	32 12 0	13 15 5
3	27 7 18	30 3 15	30 3 15	108.87	1,515 0 5	1,182 3 4	332 13 1	54 2 2	42 3 10	11 14 4
4	27 6 19	28 5 2	28 5 2	102.76	1,329 12 9	755 4 9	574 8 0	47 11 5	27 1 8	20 9 9
5	27 6 10	28 7 15	28 7 15	104.16	1,294 15 10	836 0 11	458 14 11	46 9 1	30 1 1	16 7 12
6	27 5 16	27 6 18½	27 6 18½	100.51	1,754 5 6	843 13 3	910 8 3	63 4 4	30 6 11	32 13 5
7	27 5 16	26 3 12	26 3 12	95.40	1,332 5 10	819 15 3	512 6 7	48 2 8	29 10 3	18 8 5
8	27 4 16	29 5 4	29 5 4	107.43	1,245 6 3	806 8 7	438 13 7	45 2 0	29 3 7	15 14 5
9	27 4 14	28 5 17	28 5 17	104.15	1,498 12 11	812 13 4	685 15 7	54 5 3	29 7 4	24 13 11
10	27 4 14	29 3 2	29 3 2	106.52	1,369 8 9	1,177 1 9	192 7 0	49 10 3	42 10 8	6 15 7
11	27 3 1	28 7 14	28 7 14	105.77	1,486 11 1	872 15 6	613 11 7	54 4 9	31 14 2	22 6 7
12	27 2 19	28 6 4	28 6 4	105.14	1,404 10 11	829 13 10	574 13 1	51 5 1	30 5 1	21 0 0
13	26 7 16	28 4 8	28 4 8	105.84	1,457 10 2	843 13 3	613 12 11	54 0 7	31 4 5	22 12 2
14	23 6 8	29 3 1	29 3 1	109.63	1,779 13 5	1,091 10 3	688 3 2	66 6 7	40 11 8	25 10 11
15	26 5 4	29 6 16	29 6 16	112.21	1,692 2 2	752 0 3	940 1 11	63 5 8	28 2 6	35 3 2
16	25 7 17	29 2 10	29 2 10	112.82	1,195 12 4	822 1 3	373 11 1	46 0 5	31 10 3	14 6 2
17	25 1 15	25 3 12	25 3 12	100.42	1,510 0 8	885 9 11	624 6 9	59 14 0	35 1 10	24 12 2
18	25 0 0	28 3 4	28 3 4	113.60	1,399 15 4	742 15 0	657 0 4	55 15 11	29 11 5	26 4 6
19	22 6 1	23 0 14	23 0 14	101.46	1,044 4 5	784 11 9	259 8 8	45 14 2	34 7 8	11 6 6

(Continued).

(Concluded).

20	..	21	6 10	24	1 5	110-74	1,211	6 4	777	8 5	433	13 11	55	8 9	35	10 5	19	14 4
21	..	..	17 7 5	17	1 7	95-88	811	8 3	524	3 6	287	4 9	45	5 0	29	4 4	16	0 8
22	..	..	16 5 13	16	6 14	100-78	698	11 6	489	13 11	208	13 7	41	13 1	29	5 1	12	8 0
23	..	..	15 1 6	14	5 6½	96-72	632	2 11	437	0 11	195	2 0	41	11 3	28	13 4	12	13 11
24	..	..	14 1 12	14	6 17	104-62	589	10 6	434	14 11	154	11 7	41	8 5	30	10 1	10	14 4
25	..	..	14 1 5	14	7 11	105-56	804	7 0	499	3 9	305	3 3	56	12 11	35	4 1	21	8 10
26	..	..	14 0 5	14	3 15	103-12	763	7 7	389	13 6	373	10 1	54	6 8	27	12 7	26	10 1
27	..	..	14 0 5	14	6 11	105-61	623	13 7	402	7 4	221	6 3	44	7 6	28	11 0	15	12 6
28	..	..	13 7 19	14	4 18	104-42	703	4 2	412	5 8	290	14 6	50	4 4	29	7 7	20	12 9
29	..	..	13 7 10	13	6 6	98-92	661	10 6	412	13 9	248	12 9	47	7 6	29	9 11	17	13 7
30	..	..	13 7 8	14	4 12	104-67	692	14 5	488	9 8	204	4 9	49	11 11	35	1 3	14	10 8
31	..	..	13 7 6	14	3 14	103-95	653	5 9	421	7 9	231	14 0	46	15 7	30	4 10	16	10 9
32	..	..	13 7 6	14	2 10	102-88	778	6 10	395	10 6	382	12 4	55	15 5	28	7 1	27	8 4
33	..	..	13 5 18	14	4 16	106-76	633	6 0	377	11 8	255	10 4	46	1 6	27	7 10	18	9 8
34	..	..	13 5 0	15	4 15	114-45	717	9 6	522	14 9	194	10 9	52	10 5	38	5 10	14	4 7
35	..	..	13 3 7	12	3 5	92-45	477	13 9	405	9 9	72	4 0	35	9 9	30	3 7	5	6 2
36	..	..	12 4 19	13	4 11	107-53	667	4 11	394	4 0	273	0 11	52	14 0	31	3 10	21	10 2
37	..	..	12 3 8	12	1 9	98-04	502	10 5	299	13 8	202	12 9	40	7 0	24	2 0	16	5 0
38	..	..	12 3 8	12	4 4	100-80	422	3 5	433	11 4	-11	7 11	33	15 6	34	14 3	-0	14 9
39	..	..	11 3 3	12	2 18	108-50	443	0 11	339	1 0	103	15 11	38	14 4	29	12 3	9	2 1
Total	..	..	802 5 0	838 4 1	104-47 (average).	40,680 9 10	25,783 2 8	14,897 7 2	50,10 11 (average).	32 2 0 (average).	18 8 11 (average).							

INCOME AND EXPENDI-

Part
X.

Tenant.	Gross income.	DETAILS OF EXPENDITURE.													
		Management.			Imple- ments.			Harvest- ing.			Winnow- ing.				
		Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.		
1	778	4	8	163	10	9	43	0	4	22	13	5	10	6	1
2	650	15	3	148	6	11	39	0	3	26	3	0	11	4	9
3	753	2	7	147	6	1	38	11	10	20	10	1	14	8	11
4	655	6	8	146	12	1	38	9	2	25	14	11	10	4	11
5	638	10	5	146	7	4	38	7	11	17	6	10	11	11	3
6	877	13	0	146	0	0	38	6	0	21	12	3	12	0	1
7	663	13	11	145	10	8	38	4	7	22	11	3	10	6	6
8	616	15	4	145	5	5	38	3	3	13	11	6	9	4	11
9	757	11	5	145	4	5	38	2	11	19	1	11	12	15	10
10	674	4	11	145	4	5	38	2	11	21	2	9	11	4	3
11	748	7	0	144	3	0	37	14	5	18	2	11	11	11	7
12	698	5	6	144	1	11	37	14	1	26	12	5	10	9	5
13	720	15	5	142	0	9	37	5	5	18	12	8	12	0	10
14	887	3	3	141	2	0	37	1	6	37	4	11	11	11	7
15	844	4	1	140	10	8	36	15	7	35	4	9	9	15	11
16	589	1	2	136	13	0	35	15	5	23	15	4	8	9	0
17	744	4	8	132	12	10	34	14	6	28	0	11	9	0	9
18	692	11	11	131	10	4	34	9	8	23	1	9	9	6	4
19	516	3	5	119	13	4	31	8	0	12	0	1	8	9	7
20	597	15	11	114	13	10	30	3	1	23	15	6	8	8	6
21	404	4	5	94	4	8	24	12	7	11	6	7	5	9	5
22	344	5	9	87	15	7	23	2	0	18	4	8	5	10	0
23	316	4	11	79	13	6	20	15	10	7	14	6	4	11	9
24	291	10	9	74	12	5	19	10	6	9	11	4	4	11	9
25	409	12	9	74	8	9	19	9	6	13	1	3	5	8	9
26	384	7	8	73	14	2	19	6	9	9	6	2	4	15	2
27	313	7	2	73	14	2	19	6	9	10	14	9	4	9	9
28	351	0	10	73	11	0	19	5	11	9	10	7	5	1	9
29	329	13	0	73	6	4	19	4	8	11	1	2	4	3	10
30	345	13	4	73	5	3	19	4	5	11	4	3	3	14	9
31	322	10	5	73	4	2	19	4	1	13	1	1	4	4	7
32	389	4	3	73	4	2	19	4	1	9	5	3	7	5	11
33	316	5	0	72	5	5	19	0	3	12	0	1	4	6	1
34	356	13	0	71	12	0	18	13	9	13	14	5	4	6	2
35	233	15	11	70	10	7	18	9	2	6	12	2	4	3	2
36	334	14	5	66	7	2	17	7	5	13	2	9	3	13	2
37	243	5	9	65	6	10	17	3	2	10	6	7	3	8	8
38	207	2	11	65	6	10	17	3	2	9	2	5	2	14	5
39	214	13	0	60	0	0	15	12	4	7	10	1	2	13	2
Total	20,216	15	9	4,226	8	9	1,110	15	2	667	1	3	301	3	3

TURE OF THE LANDLORD.

Part
X.

Seeds.	Total expenditure.	Net income.	PER ACRE.		
			Gross income.	Expenditure.	Net income.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
16 2 10	256 1 5	522 3 3	25 0 8	8 3 10	16 12 10
16 7 9	241 6 8	409 8 7	23 1 6	8 9 0	14 8 6
17 13 9	239 2 8	513 15 11	26 14 8	8 8 9	18 5 11
16 2 6	237 11 7	417 11 1	23 8 3	8 8 6	14 15 9
18 0 8	232 2 0	406 8 5	22 15 5	8 5 7	14 9 10
17 15 0	236 1 4	641 11 8	31 10 7	8 8 3	23 2 4
17 6 1	234 7 1	429 6 10	24 0 0	8 7 7	15 8 5
18 3 8	224 12 9	392 2 7	22 5 8	8 2 4	14 3 4
17 10 9	233 3 10	524 7 7	27 7 6	8 7 3	19 0 3
18 2 0	234 0 4	440 4 7	24 7 1	8 7 9	15 15 4
17 9 4	229 9 3	518 13 9	27 5 4	8 6 2	18 15 2
17 10 10	237 0 8	461 4 10	25 8 3	8 10 7	16 13 8
16 10 3	226 13 11	494 1 6	26 11 8	8 6 6	18 5 2
18 4 11	245 8 11	641 10 4	33 1 8	9 2 7	23 15 1
17 13 1	240 12 0	603 8 1	31 9 9	9 0 3	22 9 6
18 12 9	224 1 6	364 15 8	22 10 9	8 10 0	14 0 9
16 7 9	221 4 9	522 15 11	29 8 3	8 12 5	20 11 10
13 14 11	212 11 0	480 0 11	27 11 4	8 8 1	19 3 3
14 10 2	186 9 2	329 10 3	22 10 11	8 3 2	14 7 9
15 10 6	193 3 5	404 12 6	27 6 9	8 13 9	18 9 0
9 6 1	145 7 4	258 13 1	22 9 2	8 2 0	14 7 2
10 4 3	145 4 6	199 1 3	20 9 9	8 11 1	11 14 8
9 1 11	122 9 6	193 11 5	20 13 10	8 1 5	12 12 5
9 13 0	118 11 0	172 15 9	20 8 8	8 5 9	12 2 11
8 0 10	120 13 1	288 15 8	28 15 0	8 8 6	20 6 6
11 4 7	118 14 10	265 8 10	27 6 6	8 7 8	18 14 10
8 15 3	117 12 8	195 10 6	22 5 6	8 6 4	13 15 2
8 15 9	116 13 0	234 3 10	25 1 6	8 5 7	16 11 11
8 12 9	116 12 9	213 0 3	23 10 7	8 6 1	15 4 6
7 9 10	115 6 6	230 6 10	24 13 3	8 4 7	16 8 8
9 6 1	119 4 0	203 6 5	23 3 2	8 9 2	14 10 0
9 6 5	118 9 10	270 10 5	27 15 9	8 8 5	19 7 4
9 1 7	116 13 5	199 7 7	23 0 4	8 8 1	14 8 3
9 8 7	118 6 11	238 6 1	26 2 10	8 11 0	17 7 10
7 14 8	108 1 9	125 14 2	17 7 0	8 0 11	9 6 1
8 8 9	109 7 3	225 7 2	26 8 7	8 10 9	17 13 10
8 1 10	104 11 1	138 10 8	19 9 3	8 6 9	11 2 6
9 11 3	104 6 1	102 12 10	16 10 8	8 6 4	8 4 4
7 3 2	93 6 9	121 6 3	18 13 9	8 3 3	10 10 6
512 12 1	6,818 8 6	13,398 7 3	25 3 0 (average).	8 7 11 (average).	16 11 1 (average).

INCOME AND EX-

Part
X.

Tenant.	Gross income.			DETAILS OF														
				Labour.			Imple- ments.			Upkeep of bullocks			Seed.			Water rates.		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
1 ..	785	6	8	61	12	0	38	2	5	554	3	1	42	12	9	140	0	0
2 ..	665	12	4	51	12	0	22	12	6	379	9	7	43	6	6	132	15	0
3 ..	761	13	10	77	13	7	28	4	0	596	12	1	46	1	4	144	2	0
4 ..	674	6	1	1	4	6	13	1	0	292	12	1	31	5	7	128	11	0
5 ..	656	5	5	5	0	0	30	4	5	349	3	3	44	0	3	133	0	0
6 ..	876	8	6	1	4	0	24	2	0	346	15	9	58	1	11	128	7	0
7 ..	668	7	11	1	12	0	24	14	6	347	9	1	45	3	11	118	15	0
8 ..	628	6	10	1	12	0	33	14	5	340	2	3	35	13	5	133	13	0
9 ..	741	1	6	0	6	0	18	14	5	338	2	1	45	4	9	130	5	0
10 ..	695	3	10	117	14	0	23	13	6	577	13	10	46	1	0	130	13	0
11 ..	738	4	1	..	..	..	41	4	7	377	1	5	48	9	2	132	4	0
12 ..	706	5	5	1	4	0	19	10	8	349	2	1	39	14	4	131	2	0
13 ..	736	10	9	2	0	0	20	9	7	371	12	9	42	2	2	135	13	0
14 ..	892	10	2	81	8	0	40	4	0	457	15	8	41	2	4	130	14	0
15 ..	847	14	1	1	5	0	29	10	5	248	7	3	33	7	2	136	13	0
16 ..	606	11	2	79	4	0	35	15	11	280	0	1	23	3	9	134	0	0
17 ..	765	12	0	10	10	3	34	12	6	412	14	1	37	13	10	116	0	0
18 ..	707	3	5	5	0	0	42	4	0	275	2	7	33	11	9	127	8	0
19 ..	528	1	0	..	..	..	27	5	11	398	2	9	28	3	4	111	4	0
20 ..	613	6	5	0	8	0	25	5	10	388	14	0	19	10	3	103	9	0
21 ..	407	3	10	43	12	6	3	4	0	212	11	0	12	5	7	81	13	0
22 ..	354	5	9	..	..	..	48	4	9	173	12	7	14	6	10	77	1	0
23 ..	315	14	0	1	14	0	12	4	0	205	8	6	11	10	0	63	15	0
24 ..	297	15	9	27	6	6	17	4	0	176	14	4	13	5	6	60	8	0
25 ..	394	10	3	1	14	0	13	10	11	253	15	7	12	11	1	70	1	0
26 ..	378	15	11	0	6	0	8	12	0	152	5	9	14	6	0	73	2	0
27 ..	310	6	5	..	..	..	1	4	0	184	2	11	11	14	8	65	1	0
28 ..	352	3	4	0	2	0	19	0	0	175	15	6	12	11	11	65	7	0
29 ..	331	13	6	1	10	0	18	8	0	182	3	10	12	8	5	58	15	0
30 ..	347	1	1	15	0	0	18	8	0	241	15	10	11	11	5	63	8	0
31 ..	330	11	4	2	4	0	26	7	0	171	12	10	14	6	3	62	13	0
32 ..	389	2	7	..	..	..	14	12	0	141	0	8	31	0	4	66	2	0
33 ..	317	1	0	1	14	0	12	12	0	145	2	0	13	5	8	64	6	0
34 ..	360	12	6	56	14	0	21	4	0	216	15	11	13	2	7	70	11	0
35 ..	243	13	10	1	0	0	5	12	10	204	6	3	9	8	0	59	8	0
36 ..	332	6	6	0	6	0	22	10	0	158	8	2	14	13	0	64	4	0
37 ..	259	4	8	1	15	0	4	12	0	112	12	8	9	15	2	45	9	0
38 ..	215	0	6	0	12	0	15	7	0	227	9	9	10	14	3	56	13	0
39 ..	228	3	11	0	4	0	7	10	4	158	1	7	8	14	6	54	11	0
<i>Total</i>	<i>20,463</i>	<i>10</i>	<i>1</i>	<i>659</i>	<i>7</i>	<i>4</i>	<i>867</i>	<i>9</i>	<i>5</i>	<i>11,178</i>	<i>11</i>	<i>8</i>	<i>1,039</i>	<i>12</i>	<i>8</i>	<i>3,804</i>	<i>8</i>	<i>0</i>

PENDITURE OF THE TENANTS.

Part X.

EXPENDITURE.				Total expenditure.	Net income.	PER ACRE.		
Harvesting.	Winnowing.	Kamins.	Weighing charges.			Gross income.	Expenditure.	Net income.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
22 13 5	10 6 1	8 8 11	6 6 11	885 1 7	-99 10 11	25 4 4	28 7 8	-3 3 4
26 2 11	11 4 8	8 5 1	5 8 10	681 13 1	-16 0 9	23 9 11	24 3 0	-0 9 1
20 10 1	14 8 11	8 14 11	5 13 9	943 0 8	-181 2 10	27 3 6	33 11 1	-6 7 7
25 14 11	10 5 0	8 5 1	5 13 9	517 9 2	156 12 11	24 3 2	18 9 2	5 10 0
17 6 11	11 11 2	8 8 11	4 12 0	603 14 11	52 6 6	23 9 8	21 11 6	1 14 2
21 12 3	12 0 2	8 8 11	6 7 11	607 11 11	268 12 7	31 9 9	21 14 8	9 11 1
22 11 2	10 6 6	8 8 11	5 7 1	585 8 2	82 15 9	24 2 8	21 2 8	3 0 0
13 11 7	9 4 10	8 5 4	4 15 0	581 11 10	46 11 0	22 12 4	21 1 3	1 11 1
19 1 11	12 15 11	8 8 11	5 14 6	579 9 6	161 8 0	26 13 9	21 0 1	5 13 8
21 2 8	11 4 3	8 8 11	5 10 3	943 1 5	-247 13 7	25 3 2	34 2 11	-8 15 9
18 3 0	11 11 7	8 8 11	5 11 7	643 6 3	94 13 10	26 15 5	23 8 0	3 7 5
26 12 4	10 9 4	8 8 11	5 13 6	592 13 2	113 8 3	25 12 10	21 10 6	4 2 4
18 12 8	12 0 11	8 5 4	5 6 11	616 15 4	119 11 5	27 4 11	22 13 11	4 7 0
66 2 5	11 11 6	8 8 11	7 14 6	846 1 4	46 8 10	33 4 11	31 9 1	1 11 10
35 4 10	10 0 0	7 13 8	8 6 11	511 4 3	336 9 10	31 11 11	19 2 3	12 9 8
23 15 4	8 9 1	7 10 1	5 5 6	597 15 9	8 11 5	23 5 8	23 0 3	0 5 5
28 0 11	9 0 9	8 8 11	6 7 11	664 5 2	101 6 10	30 5 9	26 5 5	4 0 4
23 1 9	9 6 3	8 8 11	5 8 9	530 4 0	176 15 5	28 4 7	21 3 4	7 1 3
12 0 1	8 9 7	8 5 4	4 3 7	598 2 7	-70 1 7	23 3 3	26 4 6	-3 1 3
23 15 5	8 8 6	7 13 8	6 0 4	584 5 0	29 1 5	28 2 6	26 12 8	1 5 4
11 6 7	5 9 5	3 13 1	4 1 0	378 12 2	28 7 8	22 11 10	21 2 4	1 9 6
18 4 8	5 10 1	3 13 1	3 4 5	344 9 5	9 12 4	21 3 4	20 10 0	0 9 4
7 14 7	4 11 9	3 13 1	2 12 6	314 7 5	1 6 7	20 13 5	20 11 11	0 1 6
9 11 3	4 11 8	3 14 10	2 7 10	316 3 11	-18 4 2	20 15 9	22 4 4	-1 4 7
13 1 4	5 8 10	3 13 1	3 10 10	378 6 8	16 3 7	27 13 11	26 11 7	1 2 4
9 6 1	4 15 2	3 14 10	3 10 10	270 14 8	108 1 3	27 0 2	19 4 11	7 11 3
10 14 9	4 9 9	3 14 10	2 12 9	284 10 8	25 11 9	22 2 0	20 4 8	1 13 4
9 10 7	5 1 9	3 14 10	3 9 1	295 8 8	56 10 8	25 2 10	21 2 0	4 0 10
11 1 3	4 3 9	3 14 10	2 15 11	296 1 0	35 12 6	23 12 11	21 3 10	2 9 1
11 4 3	3 14 9	3 14 10	3 6 1	373 3 2	-26 2 1	24 14 8	26 12 8	-1 14 0
13 1 0	4 4 7	3 14 10	3 4 3	302 3 9	28 7 7	23 12 5	21 11 8	2 0 9
9 5 3	7 6 0	4 4 6	3 1 11	277 0 8	112 1 11	27 15 8	10 14 8	8 1 0
12 0 1	4 6 1	3 14 10	3 1 7	260 14 3	56 2 9	23 1 2	18 15 9	4 1 5
13 14 5	4 6 2	3 14 10	3 4 11	404 7 10	-43 11 4	26 7 7	29 10 10	-3 3 3
6 12 3	4 3 2	3 13 1	2 8 5	297 8 0	-53 10 2	18 2 9	22 2 8	-3 15 11
13 2 9	3 13 2	3 14 10	3 4 10	284 12 9	47 9 9	26 5 5	22 9 1	3 12 4
10 6 7	3 8 7	3 13 1	2 6 6	195 2 7	64 2 1	20 13 9	15 11 3	5 2 6
9 2 5	2 14 5	4 3 1	1 9 4	329 5 3	-114 4 9	17 4 10	26 7 11	-9 3 1
7 10 0	2 13 2	3 13 1	1 12 7	245 10 3	-17 6 4	20 0 7	21 9 0	-1 8 6
695 14 8	301 3 3	242 8 1	174 15 1	18,964 10 2	1,498 15 11	25 7 11	23 10 1	1 13 10
						(average)	(average)	(average)

AVERAGE DAILY EARNINGS OF EACH TENANT.

Part
X.

Tenant.	AVERAGE NET INCOME.			Number of men	AVERAGE NET INCOME PER MAN.	
	Total.	Per day.	Per day worked.		Per day.	Per day worked.
	Rs. a. p.	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
1	-99 10 11	-0 4 1	-0 13 11	4	-0 1 1	-0 3 6
2	-16 0 9	-0 0 8	-0 1 1	2	-0 0 1	-0 0 7
3	-181 2 10	-0 7 11	-0 13 10	2	-0 1 0	-0 6 11
4	156 12 11	0 6 10	0 13 4	3	0 2 3	0 4 9
5	52 6 6	0 2 1	0 3 11	3	0 0 9	0 1 4
6	268 12 7	0 11 9	2 5 6	6	0 2 0	0 6 3
7	82 15 9	0 3 11	0 6 1	2½	0 1 7	0 2 5
8	46 11 0	0 2 1	0 1 1	3	0 0 8	0 1 4
9	161 8 0	0 7 1	0 15 4	4	0 1 9	0 3 10
10	-247 13 7	-0 10 10	-1 5 2	2	-0 5 5	-0 10 7
11	94 13 10	0 4 2	0 6 6	2½	0 1 8	0 2 7
12	113 8 3	0 5 0	0 10 2	3	0 1 8	0 3 5
13	119 11 5	0 5 3	0 6 7	3	0 1 9	0 2 2
14	46 8 10	0 2 0	0 4 0	2	0 1 0	0 2 0
15	336 9 10	0 14 9	2 12 4	4	0 3 8	0 11 1
16	8 11 5	0 0 5	0 0 6	1	0 0 5	0 0 6
17	101 6 10	0 4 5	0 10 10	3½	0 1 9	0 3 4
18	176 15 5	0 7 9	0 12 4	3	0 2 7	0 4 1
19	-70 1 7	-0 3 1	-0 5 8	2½	-0 1 3	-0 2 3
20	29 1 5	0 1 3	0 2 0	2	0 0 8	0 1 0
21	28 7 8	0 1 3	0 2 6	1	0 1 3	0 2 6
22	9 12 4	0 0 5	0 1 5	2½	0 0 2	0 0 7
23	1 6 7	0 0 1	0 0 2	2	0 0 0	0 0 1
24	-18 1 2	-0 0 10	-0 1 10	1	-0 0 10	-0 1 10
25	16 3 7	0 0 9	0 0 11	1	0 0 9	0 0 11
26	108 1 3	0 4 9	0 12 5	2	0 2 4	0 6 3
27	25 11 9	0 1 2	0 3 3	2	0 0 7	0 1 7
28	56 10 8	0 2 6	0 6 8	2	0 1 3	0 3 4
29	35 12 6	0 1 7	0 2 7	1	0 1 7	0 2 7
30	-26 2 1	-0 1 2	-0 1 8	1	-0 1 2	-0 1 8
31	28 7 7	0 1 3	0 3 1	1½	0 0 10	0 2 0
32	112 1 11	0 4 11	0 11 7	2	0 2 5	0 5 10
33	56 2 9	0 2 6	0 3 8	1	0 2 6	0 3 8
34	-43 11 4	-0 1 11	-0 5 6	1	-0 1 11	-0 5 6
35	-53 10 2	-0 2 6	-0 8 0	2	-0 1 3	-0 1 0
36	47 9 9	0 2 1	0 7 0	2	0 1 1	0 3 6
37	64 2 1	0 2 10	0 4 9	1	0 2 10	0 4 9
38	-114 4 9	-0 5 0	-1 1 7	2	-0 2 6	-0 10 4
39	-17 6 4	-0 0 9	-1 2 7	2	-0 0 5	-0 1 3
Total	1,498 15 11	0 1 8 (average)	0 3 7 (average)	87½	0 0 9 (average)	0 1 7 (average)

EXPENDITURE.

Part
X.

	Total.	Landlord.	Tenant.	PER ACRE.		
				Total.	Landlord.	Tenant.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Management ..	4,226 8 9	4,226 8 9	..	5 4 3	5 4 3	..
Implements ..	1,978 8 7	1,110 15 2	867 9 5	2 7 5	1 6 2	1 1 3
Harvesting ..	1,362 15 11	667 1 3	695 14 8	1 11 2	0 13 3	0 13 11
Winnowing ..	602 6 6	301 3 3	301 3 3	0 12 0	0 6 0	0 6 0
Kamins ..	242 8 1	..	242 8 1	0 4 10	..	0 4 10
Labour ..	659 7 4	..	659 7 4	0 13 2	..	0 13 2
Upkeep of Bullocks ..	11,178 11 8	..	11,178 11 8	13 14 10	..	13 14 10
Seed ..	1,552 8 9	512 12 1	1,039 12 8	1 15 0	0 10 3	1 4 9
Water Rates ..	3,804 8 0	..	3,804 8 0	4 11 10	..	4 11 10
Weighing Charges	174 15 1	..	174 15 1	0 3 6	..	0 3 6
<i>Total</i> ..	<i>25,783 2 8</i>	<i>6,818 8 6</i>	<i>18,964 10 2</i>	<i>32 2 0</i>	<i>8 7 11</i>	<i>23 10 1</i>

SUMMARY.

			A. K. M.
Area held ..	..	..	802 5 0
Area cropped ..	..	..	838 4 1
Intensity of cropping	..	..	104.47 per cent.

	Total.	Landlord.	Tenants.	PER ACRE.		
				Total.	Landlord.	Tenants.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Gross Income ..	40,680 9 10	20,216 15 9	20,463 10 1	50 10 11	25 3 0	25 7 11
Expenditure ..	25,783 2 8	6,818 8 6	18,964 10 2	32 2 0	8 7 11	23 10 1
Net Income ..	14,897 7 2	13,398 7 3	1,498 15 11	18 8 11	16 11 1	1 13 10

PART XI.

Accounts of a holding of 25 acres in the

Montgomery District farmed by *Batai*

Cultivation during the year

1st June 1930 to 31st May 1931.

PART XI.

The accounts of this holding for the previous five years will be found in Rural Section Publications Nos. 15,19, 20, 21 and 24.* ^{Part XI.}

During the year under report the tenant cultivated 25 acres of land on *batai*. There is no new feature to be recorded with regard to the conditions of farming this land.

The intensity of cropping has gone up further by about four per cent. as compared with 117.7 per cent. for 1929-30. As explained in last year's accounts the high intensity of cropping is due to the growing of four acres of *guara* for green manuring. *Guara* seed for this purpose was supplied by the landlord free of charge; half the cost of sugarcane seed was also borne by the landlord, the seed for other crops was obtained by the tenant at his own expense.

Two male members of the tenants' family worked on the farm throughout the year; they were assisted by four labourers engaged at different times during this period; thus, there were three permanent workers on the farm throughout the year. The charges for labour came to Rs. 135/-.

Casual labour was engaged and given 20 bundles for harvesting five acres of wheat; each bundle gave 20 seers of grain and 30 seers of *bhusa*. Cotton picking was done for 1/10th share. The *jhoka* received 1 maund 36 seers of *shakkar* and 26 seers of *gur*, the rate of payment being two seers per maund of produce obtained.

The charges for winnowing *toria* and wheat were borne by the tenant as the landlord demanded no *malikana* for these crops. If the landlord had charged this at two seers per maund, he would have had to pay winnowing expenses which are also calculated at the same rate. This has not, therefore, affected the net income of landlord or tenant.

The management of this holding cost the landlord Rs. 50/-, *i.e.*, Rs. 2/- per acre.

Four bullocks worth Rs. 450/- were kept throughout the year for cultivation work. The cost of their upkeep was Rs. 9/15/6 per acre as against Rs. 11/14/9 and Rs. 9/14/6, respectively, during the last two years.

* *Ibid.* pages 33-39, 59-68, 57-64, 235-43 and 187-95.

Part
XI.

The income statement shows that maize, *mash* and gram gave poor outturns and that all other crops were good. Borers in case of maize and excessive rains in *mash* are responsible for the low yields. Gram was sown on a very rich piece of land that was kept fallow in *kharif* and excessive vegetative growth reduced the yield considerably. The gross income resulting from the year's working was Rs. 40/8/6 per acre; the expenses of cultivation amounted to Rs. 31/6/10 leaving a net income of Rs. 9/1/8 per acre. The tenant suffered a loss of Rs. 3/11/8 per acre while the landlord received a net income of Rs. 12/13/4 per acre.

INCOME.

A. K. M.

Area held--25 0 0

Part
XI.

Crop.	Area.	Outturn.	Rate per maund.		Value.	
			Rs.	a.	Rs.	a. p.
Sugarcane (<i>shakkar</i>) ..	A. K. M. 1 4 0	Mds. Srs. 35 0	5	0	175	0 0
" (<i>gur</i>) ..	..	12 12	3	12	46	2 0
Maize ..	1 4 0	15 15	1	4	19	3 6
" stalks ..	..	..	..	..	8	0 0
Cotton ..	1 7 18	19 5	4	9	87	4 2
<i>Mash</i> ..	2 0 0	6 0	3	2	18	12 0
<i>Toria</i> ..	5 0 0	47 19	3	0	142	6 10
Wheat ..	10 0 0	211 5	1	6	290	4 9
" <i>bhusa</i> ..	..	315 0	0	2	39	6 0
Gram ..	1 0 0	6 0	1	10	9	12 0
" <i>bhusa</i> ..	..	6 0	0	1	0	6 0
<i>Sarson</i> ..	1 0 0	12 3	3	0*	36	3 7
<i>Methe</i> ..	1 3 18	..	3	8*	41	10 5
<i>Chari, guara</i> ..	1 0 0	..	3	0	24	0 0
<i>Guara</i> ..	4 0 0	Green manured	..	..	..	..
<i>Total</i> ..	3) 3 16	..	..	..	938	7 3

ADD THE FOLLOWING PAID IN KIND—

*Per Kanal

1. *Harvesting*—

	Rs.	a.	p.
<i>Shakkar</i> to <i>jhoka</i> , 1 maund 36 seers ..	9	8	0
<i>Gur</i> to .., 26 seers ..	2	7	0
Cotton, 2 maunds 5 seers ..	9	11	2
Wheat, 20 bundles @ Rs. -/12/6 per bundle..	15	10	0
			37 4 2

2. *Winnowing*—

Wheat, 11 maunds 4 seers ..	15	4	2
<i>Toria</i> , 2 ,, 25 ,, ..	7	14	0
			23 2 2

3. *Kamins*—

Wheat, 3 maunds 25 seers ..	4	15	9
Maize, 3 ,, 25 ,, ..	4	8	6
<i>Gur</i> , 3 seers ..	0	4	6
<i>Toria</i> , 6 ,, ..	0	7	2
Cotton, 6 ,, ..	0	10	11
			10 14 10

4. *Kept for seed*—

Maize cobs, 4 maunds 25 seers ..			3 7 6
----------------------------------	--	--	-------

Gross Income

1,013 3 11

ANALYSIS OF EXPENDITURE.

		Rs.	a.	p.	Rs.	a.	p.
Part XI-	1. Land Revenue and Water Rates—						
	Land Revenue	..	..	..	53	6	6
	Water Rates	..	..	..	129	7	6
					<hr/>		
					182	14	0
	2. Upkeep of Bullocks—						
	<i>Bhusa</i> fed	..	..	..	80	0	0
	Green fodder produced	..	..	..	32	13	3
	" " purchased	..	..	..	12	0	0
	Dry fodders	..	..	..	4	0	0
	Sugarcane tops	..	..	..	6	12	0
	Grass	..	..	..	31	4	0
					<hr/>		
	Total fodders	..	..	..	166	13	3
	Total adults stock—10 animals.						
	Bullocks—4.						
	Bullocks' share of fodders— $\frac{2}{5}$ ths	..	..	..	66	11	8
	Concentrates	..	..	..	90	0	0
	Salt	..	..	..	2	8	0
	Interest and depreciation at 20% on Rs. 450/-	..	..	..	90	0	0
					<hr/>		
					249	3	8
	3. Seed—						
	Sugarcane	..	..	..	30	0	0
	Maize	..	..	..	0	14	6
	Cotton	..	..	..	1	3	3
	<i>Mash</i>	..	..	..	1	7	6
	<i>Toria</i>	..	..	..	2	8	0
	Wheat	..	..	..	17	3	0
	Gram	..	..	..	1	6	6
	<i>Sarson</i>	..	..	..	0	8	0
	<i>Methe</i>	..	..	..	2	10	0
	<i>Chari, guara</i>	..	..	..	3	14	6
	<i>Guara</i> (green manuring)	..	..	..	7	8	0
					<hr/>		
					69	3	3
	4. Kamins—						
	Wheat, 3 maunds 10 seers	..	..	..	4	7	6
	Maize, 3 " 10 "	..	..	..	4	1	0
	<i>Gur</i> , 3 seers	..	..	..	0	4	6
	<i>Toria</i> , 6 " "	..	..	..	0	7	2
	Cotton 6 " "	..	..	..	0	10	11
					<hr/>		
					9	15	1
	Carried over				..		
					<hr/>		
					511	4	0

			Rs. a. p.	Rs. a. p.	Part X1.
	Brought forward	..	..	511	4 0
5. <i>Harvesting</i> —					
	For details see Income Statement—	..	..	37	4 2
6. <i>Winnowing</i> —					
	For details see Income Statement—	..	..	23	2 2
7. <i>Implements</i> —					
	Interest and depreciation at 20% on—				
	Rs. 40/-, implements	..	..	8	0 0
	Rs. 50/-, cart	..	..	10	0 0
	Replacements	..	..	5	0 0
	Cane-crushing mill hire	..	..	6	0 0
				<hr/>	
				29	0 0
8. <i>Management</i> —					
	Proportionate pay of a <i>munshi</i>	..	..	50	0 0
9. <i>Labour</i> —					
	Cash	..	..	105	0 0
	Meals, etc.	..	..	30	0 0
				<hr/>	
				135	0 0
				<hr/>	
	<i>Total Expenditure</i>	..	..	785	10 4
				<hr/>	

EXPENDITURE.

Part
XI.

	TOTAL.				PER ACRE.		
	Landlord.		Tenant.		Landlord.	Tenant.	Total.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Land Revenue ..	26 11 3	26 11 3	1 1 1	1 1 1	2 2 2		
Water Rates ..	64 11 9	64 11 9	2 9 5	2 9 5	5 2 10		
Upkeep of Bullocks ..	..	249 3 8	..	9 15 6	9 15 6	
Seed ..	22 8 0	46 11 3	0 14 5	1 13 11	2 12 4		
<i>Kamins</i> ..	4 15 7	4 15 6	0 3 2	0 3 2	0 6 4		
Harvesting ..	18 10 1	18 10 1	0 11 11	0 11 11	1 7 10		
Winnowing ..	..	23 2 2	..	0 14 10	0 14 10	
Implements ..	8 0 0	21 0 0	0 5 2	0 13 5	1 2 7		
Management ..	50 0 0	..	2 0 0	..	2 0 0		
Labour ..	..	135 0 0	..	5 6 5	5 6 5	
<i>Total</i> ..	<i>195 8 8</i>	<i>590 1 8</i>	<i>7 13 2</i>	<i>23 9 8</i>	<i>31 6 10</i>		

SUMMARY.

			A. K. M.
Area held ..	..	..	25 0 0
Area cropped ..	..	..	30 3 16
Intensity of cropping ..	..	..	121.9 per cent.

	TOTAL.			PER ACRE.		
	Gross income.	Expenditure.	Net income.	Gross income.	Expenditure.	Net income.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Landlord ..	516 5 9	195 8 8	320 13 1	20 10 6	7 13 2	12 13 4
Tenant ..	496 14 2	590 1 8	-93 3 6	19 14 0	23 9 8	-3 11 8
<i>Total</i> ..	<i>1,013 3 11</i>	<i>785 10 4</i>	<i>227 9 7</i>	<i>40 8 6</i>	<i>31 6 10</i>	<i>9 1 8</i>

PART XII,

Accounts of an area of 55½ acres in the

Sargodha District farmed by Direct

Cultivation on the *Siri* system

during the year

1st June 1930 to 31st May 1931:

PART XII.

The keeping of accounts on this holding was started in 1927 ; the results for the years 1927-28, 1928-29 and 1929-30, were published in Rural Section Publications Nos. 20, 21 and 24.* Part
XII.

During the year under report this holding was not cultivated by a tenant on *half-batai* as had been the case in the previous three years. The area held also increased from 28 acres to 55½ acres. Cultivation was done by the tenant and two labourers under the direct supervision of the landlord. The tenant worked as a partner for 1/4th share of the total produce ; he also kept one pair of bullocks at his own expense. The expenses in connection with implements and seed were shared equally by the landlord and tenant, while the charges for land revenue, water rates, harvesting, winnowing and *kamins* were borne by both according to their respective shares in the produce. The landlord himself did not work but engaged a permanent labourer at 1/16th share of the total produce, excepting green fodders and *bhusa* ; the labourer was supplied with meals and tobacco. He and the tenant were found insufficient ; so another man was hired to assist them in the cultivation work. He was paid 36 maunds of wheat with food and tobacco ; the cost was borne jointly by the landlord and tenant. Casual labour was engaged for hoeing cotton, maize and sugarcane and was paid Rs. 15/10/0 in cash. Wheat was also shared equally.

Two pairs of bullocks were kept throughout the year for the cultivation of area of the farm. It means that the number of bullocks was half of what it usually is. This accounts for the low cost of upkeep of bullocks, *viz.*, Rs. 3/12/9 per acre. From an analysis of expenditure, it will be seen that during this year, improved implements worth Rs. 90/4/0 were bought. Wheat was sown with an automatic drill borrowed from a fellow cultivator and it is worth recording that no local implement was used for the preparation of land for sowing wheat. The use of improved implements saved a considerable amount of labour. As the landlord put it, it was because of the higher efficiency of these implements and good bullocks, that he was able to command two squares of land with two pairs of bullocks and three permanent labourers.

* *Ibid.* pages 75-84, 245-53 and 197-204,

Part
XII. Another feature worth mentioning is that the area under wheat was low and that about $2\frac{1}{2}$ acres were kept fallow throughout the year. These factors are responsible for the fall in the intensity of cropping, which is only 95·8 per cent. as against 102·0 and 103·5 per cent. during the last two years.

The casual labour engaged during the wheat harvesting season was given 42 bundles, each yielding 20 seers of grain and 35 seers *bhusa*. The picking of cotton was done for $\frac{1}{7}$ th share of the total. The *jhoka* received *gur* at the rate of two seers per maund.

Wheat and gram were winnowed by the labourers at $1\frac{1}{2}$ seers per maund, and in case of *toria* and maize, these charges were $1\frac{1}{4}$ seers and one seer per maund, respectively.

The rate of payment to *kamins* was the same as in previous years. The time-keeper, however, was given 8 annas per season instead of grain.

Yields of nearly all crops were poor and this, coupled with a heavy fall in prices, has given a gross income of only Rs. 21/7/1 per acre as against Rs. 34/0/9 and Rs. 67/5/8, respectively, for the two previous years. After deducting the expenses of cultivation, the landlord and tenant were left with a net income of Rs. 3/1/2 and Rs. 0/5/0 per acre, respectively.

INCOME.

A. K. M.

Area held—55 4 0

Part
XII.

Crop.	Area.	Outturn.	Rate		Value.	
			per maund.			
	A. K. M.	Mds. Srs.	Rs. a.	p.	Rs. a.	p.
Cotton, <i>desi</i> ..	6 7 11	13 20	4 1	0	54 13	6
„ „ American ..	4 1 7	22 20	6 3	0	139 3	6
Sugarcane Co. 223 ..	0 3 3	4 0	4 0	0	16 0	0
„ „ Co. 205 ..	0 4 9	failed.	..	..	..	..
„ „ <i>Katha</i> ..	0 4 9	3 20	5 0	0	17 8	0
Maize ..	1 0 18	20 0	0 14	0	17 8	0
„ stalks ..	..	..	..	..	9 0	0
<i>Mungi</i> ..	0 7 16	3 0	4 0	0	12 0	0
<i>Guara</i> ..	0 4 9	3 0	2 0	0	6 0	0
<i>Sau</i> ..	0 0 11	0 20	10 0	0	5 0	0
<i>Toria</i> ..	4 3 11	22 16	3 7	6	77 11	2
„ ..	1 5 7	12 33	3 11	0	47 4	8
Wheat ..	16 0 7	194 20	1 5	0	255 4	6
„ <i>bhusa</i> ..	..	315 0	0 2	6	49 3	6
Gram, White ..	1 5 7	22 20	3 11	0	82 15	6
„ „ Ordinary ..	4 3 11	26 20	2 12	0	72 14	0
Garden ..	0 4 9	1 0	10 0	0	10 0	0
<i>Tinda</i> ..	1 0 18	..	..	..	6 0	0
Chillies ..	0 1 2	0 20	5 0	0	2 8	0
Vegetables ..	0 3 1	..	Consumed by family.			
Coriander ..	0 3 7	2 20	3 0	0	7 8	0
Garlic ..	0 4 9	10 0	1 8	0	15 0	0
Potatoes ..	0 4 9	15 0	2 12	0	41 4	0
Maize ..	0 4 9	..	1 8	0	6 10	10
<i>Chari, guara, mungi</i> ..	1 7 11	..	3 0	0	46 10	5
<i>Chari, mungi</i> ..	0 4 9	..	2 0	0	8 14	5
<i>Senji, shaftal</i> ..	1 5 7	..	2 0	0	26 11	2
<i>Sarson</i> ..	0 4 9	..	3 0	0	13 5	7
Oats ..	0 4 9	..	3 0	0	13 5	7
<i>Total</i> ..	53 1 5	..	..	..	1,960 4	4

(Continued).

Rs. a. p. Rs. a. p.

Brought forward .. 1,060 4 4

Part XII. ADD THE FOLLOWING PAID IN KIND—

1. *Harvesting*—

Cotton, <i>desi</i> , 2 maunds 10 seers ..	9 2 3	
„ „ American, 3 „ 30 „ ..	23 3 3	
<i>Gur</i> to <i>jhoka</i> , 8 seers ..	0 12 10	
„ „ 7 „ ..	0 14 0	
Wheat, 42 bundles @ Rs. -/12/8 per bundle	33 4 0	
Gram, 6 „ @ Rs. -/5/3 „	1 15 6	
		69 3 10

2. *Winnowing*—

Wheat, 7 maunds 23 seers	9 15 1	
Gram, white, 35 „	3 3 8	
Gram, ordinary, 1 maund 1 seer ..	2 13 1	
<i>Toria</i> , 29 seers	2 8 3	
„ 17 „	1 9 1	
Maize, 21 „	0 7 4	
		20 8 6

3. *Kamins*—

Wheat, 10 bundles @ Rs. -/12/8 per bundle ..	7 14 8	
Maize, 4 „ @ Rs. -/4/- „ ..	1 0 0	
		8 14 8

4. *Kept for seed*—

Sugarcane	31 0 0	
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Gross Income .. 1,189 15 4

ANALYSIS OF EXPENDITURE.

			Rs.	a.	p.	Rs.	a.	p.	Part XII.
1. Land Revenue and Water Rates—									
Land Revenue	..	..	..	224	6	0			
Water Rates	..	..	..	185	9	9			
		Total	..	409	15	9			
Less remission	..	..	..	74	4	9			
							335	11	0
2. Labour—									
(a). Permanent—									
(i). One man was given—									
Wheat, 36 maunds	..	..	..	47	4	0			
Food and tobacco	..	..	..	36	0	0			
(ii). Another was given 1/16th share of produce, excepting <i>bhusa</i> and green fodder, as follows :—									
			Rs.	a.	p.				
Cotton, <i>desi</i>	..	..	3	6	10				
Cotton, American	..	..	8	11	3				
<i>Gur</i>	..	..	2	1	6				
Maize	..	..	1	1	6				
<i>Mungi</i>	..	..	0	12	0				
Chillies	..	..	0	2	6				
<i>Guara</i>	..	..	0	6	0				
<i>Toria</i>	..	..	7	13	0				
Wheat	..	..	15	15	3				
Gram	..	..	9	11	10				
Coriander	..	..	0	7	6				
Garlic	..	..	0	15	0				
Potatoes	..	..	2	9	3				
<i>Tinda</i> and <i>san</i>	..	..	0	8	0				
						54	9	5	
Food and tobacco	..	..	..	36	0	0			
(b). Casual	..	..	..	15	10	0			
							189	7	5
3. Seed—									
Cotton	..	..	..	9	12	0			
Sugarcane	..	..	..	18	0	0			
Maize	..	..	..	0	3	0			
<i>Mungi</i>	..	..	..	0	14	0			
<i>Chari</i> , <i>Guara</i>	..	..	..	7	4	3			
<i>San</i>	..	..	..	0	12	0			
		Carried over	..	36	13	3	525	2	5

		Rs. a. p.			Rs. a. p.		
		Brought forward	..	36 13 3	525 2 5		
Part XII.	<i>Toria</i>	.. ..	..	2 0 0			
	Wheat	.. ..	..	18 12 0			
	Gram	.. ..	..	20 8 0			
	<i>Tinda</i> , chillies, vegetables and garlic	.. ..	..	9 6 0			
	Coriander	.. ..	..	0 14 6			
	Potatoes	.. ..	..	34 0 0			
	<i>Senji</i> , <i>shaftal</i>	.. ..	..	4 5 0			
	<i>Sarson</i>	.. ..	..	0 2 6			
	Oats	.. ..	..	1 0 0			
				<hr/>	127 12 9		

4. *Upkeep of Bullocks—*

<i>Bhusa</i> , consumed	.. ..	..	55 0 0		
Maize stalks produced	.. ..	..	9 0 0		
„ „ purchased	.. ..	..	4 0 0		
Green fodders produced	.. ..	..	115 10 0		
„ „ purchased	.. ..	..	78 0 0		
Total fodders	.. ..	..	261 10 0		

Total adult stock—10½ animals.

Bullocks—4.		Rs. a. p.		
Bullocks' share of fodders—8/21st.		99 10 8		
Concentrates—				
Wheat	.. ..	11 8 0		
Barley	.. ..	11 7 6		
Cotton-seed	.. ..	2 0 0		
<i>Gur</i>	.. ..	3 5 0		
			28 4 6	
Salt	.. ..	2 0 0		
Interest and depreciation at 20% on Rs. 405/-	.. ..	81 0 0		
			<hr/>	210 15 2

5. *Harvesting—*

For details see Income Statement— 69 3 10

6. *Winnowing—*

For details see Income Statement— 20 8 6

Carried over

 953 10 8

		Rs. a. p.	Rs. a. p.	Part XII.
Brought forward		..	953 10 8	
7. Kamins—				
Wheat, 4 maunds	5 4 0	
Maize, 4 „	3 8 0	
Wheat, 6 bundles @ Rs. -/12/8 per bundle			4 12 0	
Maize, 4 „ @ Rs. -/4/- „	1 0 0	
Cash	1 0 0	
			15 8 0	
8. Implements—				
Interest and depreciation at—				
18 % on Rs. 90/4/-, improved implements			16 3 11	
20 % on Rs. 60/-, cart	12 0 0	
Spares and repairs	4 0 0	
Oil for chaff cutter	0 12 0	
			32 15 11	
<i>Total Expenditure</i>		..	<u>1,002 2 7</u>	

EXPENDITURE.

Part
XII.

Item.	TOTAL.		PER ACRE.		Total.
	Landlord.	Tenant.	Landlord.	Tenant.	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
*Land Revenue ..	136 6 0	45 7 3	2 7 4	0 13 1	3 4 5
*Water Rates ..	115 6 3	38 7 6	2 1 3	0 11 1	2 12 4
Labour ..	158 0 5	31 7 0	2 13 7	0 9 1	3 6 8
Seed ..	63 14 5	63 14 4	1 2 5	1 2 5	2 4 10
Upkeep of Bullocks	109 15 7	100 15 7	1 15 8	1 13 1	3 12 9
Harvesting ..	51 14 11	17 4 11	0 15 0	0 5 0	1 4 0
Winnowing ..	15 6 4	5 2 2	0 4 5	0 1 6	0 5 11
<i>Kamins</i> ..	11 10 0	3 14 0	0 3 4	0 1 2	0 4 6
Implements ..	16 8 0	16 7 11	0 4 9	0 4 9	0 9 6
<i>Total</i> ..	<i>679 1 11</i>	<i>323 0 8</i>	<i>12 3 9</i>	<i>5 13 2</i>	<i>18 0 11</i>

*Total dues were Rs. 409/15/9, but owing to poor crops and fall in prices, a remission of Rs. 74/4/9 was granted.

SUMMARY.

			A. K. M.
Area held ..	..	..	55 4 0
Area cropped ..	..	..	53 1 5
Intensity of cropping	..	..	95.8 per cent.

	TOTAL.			PER ACRE.		
	Gross income.	Expenditure.	Net income.	Gross income.	Expenditure.	Net income.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Landlord ..	849 7 7	679 1 11	170 5 8	15 4 11	12 3 9	3 1 2
Tenant ..	340 7 9	323 0 8	17 7 1	6 2 2	5 13 2	0 5 0
<i>Total</i> ..	<i>1,189 15 4</i>	<i>1,002 2 7</i>	<i>187 12 9</i>	<i>21 7 1</i>	<i>18 0 11</i>	<i>3 6 2</i>

GLOSSARY OF VERNACULAR TERMS.

- ANNA .. One-sixteenth of a rupee.
- BAJRA .. Bulrush or spiked millet (*Pennisetum typhoideum*).
- BARANI .. Dependent upon rainfall.
- BATAI .. A system of farming, where the rent is a certain proportion of the produce ; *c.f.* *metayer* system.
- BERRA .. Wheat and gram sown in mixture.
- BERSEEM .. Egyptian clover, a fodder crop (*Trifolium alexandrinum*).
- BHELI .. Raw cane sugar in lumps, made into cakes of four seers.
- BHUSA .. Straw crushed and broken into short lengths by trampling with bullocks during the process of threshing.
- BRINJAL .. Vern. Baingan (*Solanum melongena*).
- BUNDS .. Embankments ; small dams to prevent wastage of water.
- CANAL COLONY .. The name given to a large area brought under cultivation as a result of a canal project.
- CHAHI .. Irrigated from well.
- CHAKLA .. Horizontal cogwheel of the Persian wheel.
- CHAKLI .. Vertical cogwheel of the Persian wheel.
- CHAMAR .. Leather-worker caste.
- CHARI .. Great millet, grown for fodder (*Andropogon sorghum*).
- CHHATAK .. An Indian weight equal to 2·057 ozs. or one-sixteenth of a seer.
- CHINA .. Common millet (*Panicum miliaceum*).
- CHO .. Hill torrent.
- CHUHRA .. Sweeper.
- DESI .. Indigenous.
- GHI .. Clarified butter.
- GUARA .. Field vetch ; a leguminous fodder crop (*Cyamopsis psoraloides*).
- GUR .. Raw unrefined cane sugar in lumps.
- JHOKA .. Furnace feeder at the time of making of *gur*.
- JHUL .. Coarse sack cloth used as covering for cattle in winter.
- JOWAR .. A large millet (*Andropogon sorghum* or *Sorghum vulgare*).
- KAMIN .. Menial ; a landless field labourer ; a village servant.
- KANAL .. A measure of area ; 1/8th of an acre in Canal Colonies and certain districts, 1/10th of an acre in some of the older districts.
- KANGANI .. Italian millet (*Setaria italica*).
- KARDAR .. Manager of an estate.
- KHARIF .. Autumn harvest, or monsoon or summer crops.

KHURPA	.. Hand-hoe.
KILLA	.. A unit of area, equal to $1\frac{1}{9}$ acres.
LAMBAARDARI	.. Position as headman.
LATH	.. A horizontal axle of the Persian wheel with a drum carrying an endless chain of buckets at one end and a small cogwheel at the other.
LAVA	.. A casual labourer employed during wheat harvest and paid in kind.
MAHL	.. An endless chain or rope for supporting the buckets on a Persian wheel.
MAINA	.. Medick, a fodder crop (<i>Medica denticulata</i>).
MAIZE	.. Vern. <i>makki</i> (<i>zea mays</i>).
MALIKANA	.. Fee paid in recognition of proprietary title.
MARLA	.. A measure of area, $1/20$ th of a kanal.
MASH	.. A pulse much valued as human food (<i>Phaseolus radiatus</i>).
MASSAR	.. Lentil (<i>Lens esculenta</i>).
MAUND	.. An Indian weight, equal to $82\frac{2}{7}$ lbs.
METHE	.. A leguminous fodder crop (<i>Trigonella fœnum græcum</i>).
MOTH	.. A small pulse (<i>Phaseolus aconitifolius</i>).
MUHASSAL	.. An employee of the landlord who looks after the crops, and weighs the produce with a view of charging the landlord's share.
MUNG OR MUNGI	A pulse much valued as a food for invalids (<i>Phaseolus mungo</i>).
MUNJ	.. The bark of <i>sarkanda</i> , from which ropes are made.
MUSSALLI	.. A low class field labourer.
NAHRI	.. Irrigated from canal.
PAKAWA	.. One who attends to the manufacture of raw cane sugar.
PHALLA	.. A rough frame-work dragged over wheat stalks during the process of threshing.
PICE	.. One-fourth of an anna.
PIE	.. One-twelfth of an anna.
PYRILLA	.. A pest of sugarcane (<i>Pyrilla perpusilla</i>).
RABI	.. Spring harvest or winter crop.
RAKHA	.. Field watchman for the ripening crops.
RAYA	.. Mustard ; a variety of <i>Brassica juncea</i> .
RICE, BASMATI	.. A superior variety of rice.
——, JHONA	.. A variety of rice.
RUPEE	.. The Indian standard coin, now established at 1s. 6d.
SAN	.. Hemp (<i>Crotalaria juncea</i>).
SANKUKRA	.. A fibrous plant raised in narrow strips along the edges of fields (<i>Hibiscus cannebinus</i>).

- SARKANDA .. A tufted reed, 8 to 10 feet high, with thick stalks found abundantly in low sandy places (*Saccharum ciliare* or *Saccharum munja*).
- SARSON .. Rape-seed (*Brassica campestris* ; var. *glauca*).
- SAUNF .. Fennel (*Fœniculum vulgare*).
- SEER .. 1/40th of a maund ; 32·9 ozs.
- SENJI .. Indian clover ; a fodder crop (*Melilotus parviflora*).
- SASAMUM .. An oil seed (*Sesamum indicum*).
- SHAFTAL .. A fodder of the clover family (*Trifolium resupinatum*).
- SHAKKAR .. Roughly ground raw cane sugar.
- SHISHAM .. A tree, valued for its timber (*Dalbergia sisoo*).
- SIRI .. A sharer or partner in agriculture.
- LABOURER .. A farm labourer paid at a certain percentage of the yield of the crop.
- SQUARE .. A division of land in certain Canal Colonies, size 1,100 feet by 1,100 feet ; equivalent to 25 killas or 27·8 acres.
- SUGARCANE
- COIMBATORE .. A variety of cane imported from Coimbatore in South India.
- DESI .. Indigenous variety.
- SWANK .. Inferior millet grown on poor soil for fodder or grain (*Panicum colium*). The grain sometimes provides food to the poor during famines.
- TAHSIL .. Sub-division of a district with a separate administration staff ; there are usually 3 to 5 tahsils in a district in the Punjab.
- TARAMIRA .. An oil seed ; rocket (*Eruca sativa*).
- TIL .. An oil-seed ; sesamum (*Sesamum indicum*).
- TORIA .. An oil-seed ; rape (*Brassica campestris* ; var. *toria*).
- URD .. The same as *Mash*.
- VELNA .. Bullock cane-crushing mill.
- ZEMINDAR .. Landowner ; farmer.

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