



GOVERNMENT OF HARYANA

**ECONOMICS OF FARMING
IN HARYANA
2002-2003**

**Issued by:
ECONOMIC AND STATISTICAL ORGANISATION
PLANNING DEPARTMENT, HARYANA
2005**



GOVERNMENT OF HARYANA

**ECONOMICS OF FARMING
IN HARYANA
2002-2003**

**Issued by:
ECONOMIC AND STATISTICAL ORGANISATION
PLANNING DEPARTMENT, HARYANA
2005**



Publication No. 808



GOVERNMENT OF HARYANA

**ECONOMICS OF FARMING
IN HARYANA
2002-2003**

**Issued by:
ECONOMIC AND STATISTICAL ORGANISATION
PLANNING DEPARTMENT, HARYANA
2005**

PREFACE

The present report relates to the annual series on 'Economics of Farming in Haryana' and it refers to the agricultural year 2002-03 (July,2002 to June,2003).

This study provides comprehensive assessment regarding the annual gross income, expenditure and net income from cultivation under irrigated and unirrigated holdings. It also highlights impact of irrigation, cropping pattern, intensity of cropping, consumption of chemical fertilizers and use of improved agricultural machinery and farm equipments alongwith the share of bullock and manual labour deployed in agricultural operations.

The study has further revealed that the average gross income per hectare under peasant proprietorship holdings (which form 79% of total selected holdings) was Rs. 35975 and average net income of Rs. 18263 taken together from irrigated and unirrigated holdings where as the average gross and net income from peasant proprietorship-cum-tenancy holdings was Rs. 48402 and Rs. 18802, respectively.

The report has been prepared by Sh. R.N.Dalal, Research Officer under the supervision of Sh. B.S.Yadav, Deputy Economic and Statistical Adviser and overall guidance of Sh. O.P.Dhankhar, Joint Economic and Statistical Adviser and Sh. Shrichand, Additional Economic and Statistical Adviser. The assistance rendered by Sarvshri Jai Singh Malik, Assistant Research Officer, Baldev Singh, J.F.I. and Smt. Rajwanti, J.F.I., for scrutiny, compilation and tabulation of data is also acknowledged. Typing support was given by Smt. Kamlesh, Stenotypist.

The valuable assistance and active co-operation rendered by the selected cultivators who maintained the record of day-to-day operations in connection with cultivation of their respective holdings is also acknowledged.

I hope this issue will prove useful for the agricultural planners and research workers in the state who are interested in the development of rural economy.

Chandigarh
Dated : 10-10-2005

R.C. Sharma
Economic & Statistical Adviser
to Government, Haryana.

PREFACE

The present report is one of the series of reports published by the Ministry of Agriculture and Fisheries, Government of India, in the year 2002-03 (July 2002 to June 2003).

The study presents a comparative assessment regarding the annual crop production, expenditure and net income from cultivation under irrigated and unirrigated conditions. The study highlights the impact of irrigation on the productivity of crops, the use of various agricultural machinery and farm implements, the status of labour and various inputs employed in agricultural operations.

The study has been prepared with the cooperation of the various government departments, particularly the Department of Agriculture, Government of India, and the various state governments. The data for the year 2002-03 has been collected from the various government departments, particularly the Department of Agriculture, Government of India, and the various state governments.

The report has been prepared by Mr. R. S. Datta, Director, Bureau of Agricultural Economics, Government of India, and Mr. S. S. Datta, Director, Bureau of Agricultural Economics, Government of India, and Mr. S. S. Datta, Director, Bureau of Agricultural Economics, Government of India.

The report is also available in the form of a book, which may be ordered from the Director, Bureau of Agricultural Economics, Government of India, and Mr. S. S. Datta, Director, Bureau of Agricultural Economics, Government of India.

The report is also available in the form of a book, which may be ordered from the Director, Bureau of Agricultural Economics, Government of India, and Mr. S. S. Datta, Director, Bureau of Agricultural Economics, Government of India.

R. S. Datta
Director, Bureau of Agricultural Economics,
Government of India, New Delhi

Chandigarh
Date: 10-10-2002

CONTENTS

Chapter – I INTRODUCTION

	Page (s)
1.0 General	1
1.1 Objective of the study	1
1.2 Method of data collection	1
1.3 Sampling design	2
1.4 Coverage	2
1.5 Agro-climatic zones	2

Chapter – II ANALYSIS OF FARM ACCOUNT HOLDINGS

2.0 General	3
2.1 Number and size of holdings	3
2.2 Land tenure systems	3-4
2.3 Classification of cultivated area of selected holdings	4-5
2.4 Irrigated area and extent of irrigation	5-6
2.5 Classification of holdings by number and extent of irrigation in different size groups	6-7
2.6 Area under different crops (irrigated and unirrigated holdings)	7-9
2.7 Intensity of cropping	9-10
2.8 Output per hectare	10-12
2.9 Capital investment in farm agricultural machinery and equipment	12-14
2.10 Use of chemical fertilizers	14-15
2.11 Consumption of chemical fertilizers per hectare	15
2.12 Operated area per permanent agricultural worker under two types of holdings	16
2.13 Wages of agricultural worker	16-17
2.14 Operated area per plough under various types of holdings	17
2.15 Number of working days per plough under different types of holdings	18
2.16 Maintenance cost per pair of bullocks	18-19

Chapter –III

ECONOMIC ANALYSIS OF SELECTED HOLDINGS

	Page (s)
3.0 General	20
3.1 Gross Income	20-21
3.2 Input-Output analysis of holdings	22-23
3.3 Comparative position of net income under two types of land tenure Systems	23-24
3.4 Group-wise and zone-wise net income per hectare according to peasant proprietorship & peasant-proprietorship-cum-tenant system	24

Chapter – IV

SUMMARY AND CONCLUSION

25-26

LIST OF APPENDICES

I	List of selected holdings	27-30
II-A	Cropped area, yield and its value on irrigated land (Kharif)	31-46
II-B	Cropped area, yield and its value on unirrigated land (Kharif)	47-50
III-A	Cropped area, yield and its value on irrigated land (Rabi)	51-62
III-B	Cropped area, yield and its value on unirrigated land (Rabi)	62-65

CHAPTER – I INTRODUCTION

General

Agriculture holds the key to prosperity. Despite the decline in the share of agriculture to about one-fourth of GDP, nearly two thirds of our population still depends on this sector for their livelihood. But in terms of area, agriculture has reached at a saturation level and almost all the available cultivable land in the state is under plough. Thus, there is hardly any scope to bring more area under cultivation. The agriculture production can only be increased through enhanced cropping intensity, change in cropping pattern, improvement in seeds of high yielding varieties, cultivation practices and with the availability of better post harvest technology etc., State Govt. is trying to re-orient agriculture in this direction through various policy measures for increasing the production. Considering the importance of this sector, Agriculture wing of this organisation has been bringing out the annual publication "Economics of Farming" which provides useful information on various aspects of farm economy and is greatly helpful in the formulation and evaluation of agricultural development programmes and policies. The study is also highly useful in a small state which is endowed with the variations of soil, topography, climate, cropping pattern and irrigation.

The present report on "Economics of Farming in Haryana" relates to the agricultural year 2002-2003 and 161 selected holdings were covered under this study.

1.1 Objectives of the Study

The main objective of this study is to make an in-depth study of 'Economics of Farming' to find out the annual investment and net return per hectare under different types and size of holdings. In addition, this study also highlights the following aspects :

- (i) Input-output analysis of various crops.
- (ii) Income, expenditure and net return per hectare under the prevalent forms of tenancy cultivation i.e. peasant proprietorship and peasant proprietorship-cum-tenancy .
- (iii) Employment and utilisation of farm capital, manual labour and bullocks labour.

1.2 Method of Data Collection

The study is based on the data collected from the selected cultivators through District Statistical Agencies. Various farm operations were recorded by the selected cultivators in the prescribed registers. To ensure accuracy of data, the record maintained by the farmers regarding this study was supervised and checked both by the staff of Headquarter and the District Statistical Agencies. Each selected cultivator was paid an honorarium of Rs. 225/-per annum for maintaining farm accounts register during the year 2002-03.

1.3 Sampling Design

Multistage sampling design was adopted for conducting the annual field survey. The village was taken as a primary unit and the holding was ultimate unit of survey. The farm holdings in the villages have been selected purposively depending on the co-operation, willingness and capability of the cultivators in maintaining the day-to-day record of farm operations. As such, the results and conclusions arrived at in this report are based on the study of sample holdings and therefore, cannot necessarily be taken to reflect the situation prevailing in the state as a whole.

1.4 Coverage

The study is comprehensive in nature and gives detailed account of 161 agricultural holdings. Out of these holdings, 140 holdings were irrigated, 7 unirrigated and the remaining 14 agricultural holdings were partly irrigated. Various characteristics of farm holdings such as size, tenancy, level of irrigation, area under various crops, agro-climatic conditions, intensity of cropping and yield per hectare have been analysed in the report. The economic impact of various inputs like (i) Manual labour, (ii) Bullock/Camel labour, (iii) Seeds (local and Improved varieties), (iv) Agricultural implements and machinery, (v) Farm yard manure and chemical fertilizers, (vi) Irrigation charges (abiyana and tubewell charges) etc., (vii) Rent (actually paid) and (viii) Miscellaneous inputs e.g. payments made to artisans, cost of insecticides and pesticides etc. have been calculated and shown separately for irrigated and unirrigated areas. Similarly, gross income, expenditure and net income per hectare under peasant proprietorship and peasant proprietorship-cum-tenancy have been worked out to determine the profitability of farming. The different size groups of holdings i.e. 0-2, 2.0-4.0, 4.0-7.5, 7.5-10.0 and 10.0 hectares and above have been covered under this study.

1.5 Agro-Climatic Zones

Haryana consists of different agro climatic zones which are conducive for different variety of crops. To facilitate the analysis of data and to make the study more useful in planning and research for agricultural development, Haryana State has been divided into four homogeneous agro-climatic zones which are as under :-

Sr. No.	Zone	Districts Included
1.	Northern	Panchkula, Ambala, Yamunanagar, Kurukshetra, Karnal, Panipat
2.	Central	Kaithal, Jind, Sonapat, Rohtak, Jhajjar
3.	Western	Bhiwani, Hisar, Fatehabad, Sirsa.
4.	Southern	Faridabad, Gurgaon, Rewari, Mahendragarh.

CHAPTER – II

ANALYSIS OF FARM ACCOUNT HOLDINGS

General

In this chapter, data collected from 161 farm holdings selected from different zones of the state has been analysed. Micro level data in respect of selected holdings has been presented in appendices I to III.

2.1 Number and size of farm holdings

The number, cultivated area and average size of selected farm holdings in all the four agro-climatic zones are given below :

Table 2.1 Zone-wise number and average size of selected holdings

Sr.No.	Zone	No. of farm holdings	Total cultivated area of farm holdings (hectares.)	Average size of holdings (hectares)
1	2	3	4	5
1.	Northern	37 (22.98)	157.32 (26.54)	4.25
2.	Central	43 (26.71)	112.72 (19.01)	2.62
3.	Western	44 (27.33)	185.05 (31.22)	4.21
4.	Southern	37 (22.98)	137.71 (23.23)	3.72
	Total	161 (100.00)	592.80 (100.00)	3.68

Note : Figures in brackets indicate percentage to total.

Data given in Table 2.1 shows that the total cultivated area of all 161 selected holdings was 592.80 hectares with an average size of holdings of 3.68 hectares. The average size of holdings was the highest 4.25 in Northern zone and the lowest 2.62 hectares in central zone. It may, however, be pointed out that the average size of holdings does not represent the average size of holdings in the state as the selection of farm holdings was purposive in character.

2.2 Land Tenure Systems

There are two types of land tenure systems prevalent in the State i.e. (i) peasant proprietorship where peasant cultivates his own land with the help of his own family members or hired labourers, (ii) peasant proprietorship-cum-tenant where farmer cultivates his own land alongwith some land either on rent (cash) or on batai (kind) with the help of his own family members or hired labourers so as to make the cultivate holdings economically viable.

The classification of selected holdings according to prevailing land tenure systems in the different zones is given in Table 2.2.

Table 2.2 Zone-wise classification of farm holdings under peasant proprietorship and peasant proprietorship-cum-tenant system

Zone	Peasant proprietorship		Peasant proprietorship - cum-tenant		Total	
	No. of holdings	Area (hectares)	No. of holdings	Area (hectares)	No. of holdings	Area (hectares)
1	2	3	4	5	6	7
Northern	27 (72.97)	91.41 (58.10)	10 (27.03)	65.91 (41.90)	37 (22.98)	157.32 (26.54)
Central	30 (69.77)	74.02 (65.67)	13 (30.23)	38.70 (34.33)	43 (26.71)	112.72 (19.01)
Western	39 (88.64)	167.85 (90.71)	5 (11.36)	17.20 (9.30)	44 (27.33)	185.05 (31.22)
Southern	31 (83.78)	108.95 (79.12)	6 (16.22)	28.76 (20.89)	37 (22.98)	137.71 (23.23)
Total	127 (78.88)	442.23 (74.60)	34 (21.12)	150.57 (25.40)	161 (100.00)	592.80 (100.00)

Note : Figures in brackets show the percentage to the total number of holdings and total area.

Table 2.2 shows that out of total 592.80 hectares 78.88% areas, belonged to the peasant proprietor cultivators and remaining one third area was covered under peasant proprietor-cum-tenant holdings. The latter group i.e. peasant proprietor-cum-tenant represented by small and marginal farmers who had to supplement their holdings by taking land on rent/batal in case or kind so as to make the cultivate holdings economically viable.

2.3 Classification of cultivated area of selected holdings

Classification of area of the selected holdings under different size groups and land tenure systems is given in the following table :-

Table 2.3 : Classification of selected holdings according to size and land tenure systems (Area in hectares)

Size of holdings	Peasant proprietorship		Peasant proprietorship-cum-tenant				Total	
	No. of holdings	Area	No. of holdings	Owned	Rented (Cash)	Batal (Kind)	Total area	No. of holdings
1	2	3	4	5	6	7	8	9
Below 2.0	36	49.10	8	7.89	0.82	2.20	10.91	44 (27.00)
2.0-4.0	51	144.25	10	14.70	12.00	-	26.70	61 (38.00)
4.0-7.5	32	167.48	11	33.56	23.20	-	56.76	43 (27.00)
7.5 - 10.0	5	41.80	3	18.80	6.60	-	25.40	8 (5.00)
10.0 & above	3	39.60	2	24.00	6.80	-	30.80	5 (3.00)
Total	127 (78.88)	442.23 (74.60)	34 (21.12)	98.95	49.42	2.20	150.57 (25.40)	161 (100.00)

Note : Figures in brackets show the %ages to the total number of holdings and their total area.

It may be seen from Table 2.3 that out of total 161 farm holdings, 127 holdings (78.88%) and 34 holdings (21.12%) were under peasant proprietorship & peasant proprietorship-cum-tenant having an area of 442.23 (74.60%) hectares & 150.57 (25.40%) hectares, respectively. It may also be inferred from the table that the maximum concentration of holdings (38.00%) was in the size group of 2.0-4.0 hectares and the minimum (3.00%) in the size group of 10.00 hectares & above. A majority of the holdings i.e. 65.00% were in the size groups of 2.0-4.0 & 4.0-7.5 hectares whereas 27.00% of the holdings belonged to the smallest size group of below 2.0 hectares. Remaining holdings 8.0% were found in the size group of 7.5-10.0 and 10.0 hectares and above during the year 2002-03.

Table 2.4 : Number of holdings by extent of irrigation.

Zone	Total number of studied holdings	Irrigated holdings	Unirrigated holdings	Partly irrigated holdings			
				Below 25%	25% to 50%	50% to 75%	75% to 100%
1	2	3	4	5	6	7	8
Northern	37	34	1	-	1	-	1
Central	43	37	-	-	-	3	3
Western	44	40	2	-	1	-	1
Southern	37	29	4	-	1	2	1
Total	161	140 (86.95)	7 (4.35)	-	3 (1.86)	5 (3.11)	6 (3.73)

Data is given in Table 2.4 shows that out of total 161 holdings, maximum number of holdings i.e. 140 holdings (86.95%) were wholly irrigated. As many as 7 holdings (4.35%) were totally unirrigated. The remaining 14 holdings (8.70%) were partly irrigated. Thus, it is clear that there is no problem of irrigation in the state as majority of the holdings were irrigated. It will be seen from the table that a total number of 161 holdings from four climatic zones were studied during agricultural year 2002-03.

Irrigation

The availability of abundant and assured quantity of quality water is a basic need for increasing the agriculture production. It being a prime input for agricultural development, the state Govt. has given over riding priority in its successive plan as the limited water resources viz canal as well as underground water are available in our state for irrigation. Before discussing the results of the field survey, it is imperative to examine whether there were irrigation facilities for selected/studied holdings or not ?

Irrigated/Unirrigated area of selected holdings

The information regarding the number of holdings and their areas were also collected from the selected cultivators. The total cultivated area of all studied holdings and irrigated/unirrigated area alongwith percentages has been shown in table 2.4 (a).

Table 2.4 (a) Zone-wise irrigated/unirrigated area of the holdings under study.

Zone	Total cultivated area of all selected holdings	Irrigated area	Unirrigated area	Area irrigated/unirrigated as percentage of the total cultivated area	
				Irrigated	Unirrigated
1	2	3	4	5	6
Northern	157.32	153.41	3.91	97.52	2.48
Central	112.72	107.82	4.90	95.65	4.35
Western	185.05	173.05	12.00	93.52	6.48
Southern	137.71	109.51	28.20	79.52	20.48
Total	592.80	543.79	49.01	91.73	8.27

It is obvious from Table 2.4(a) that 91.73 percent of the cultivated area was under irrigation whereas only 8.27 percent area was found unirrigated during agricultural year 2002-03. The table also reveals that Northern & western zones were toppers in respect of irrigated area brought under farming. The Southern zone was on the lowest position contributing 79.52 percent irrigated area. In case of unirrigated area southern zone was on the higher side resulting in 20.48 percent of the total cultivated area whereas the minimum unirrigated area i.e. 2.48 percent was observed in Northern zone.

2.5 Classification of holdings by number and extent of irrigation in different size groups

The classification of holdings by number and extent of irrigation in different size groups is given in Table 2.5.

Table 2.5 : Classification of holding by number/area and level of irrigation in different size groups.

Size of holdings (hectares)	Total number of holdings -	Total area of all selected holdings	(Area in hectares)						
			Wholly irrigated holdings/area		Partly irrigated holdings/area		Wholly unirrigated holdings/area		
			No.	Area	No.	Area	No.	Area	
1	2	3	4	5	6	7	8	9	10
Below 2.0	44	60.01	36	48.10	3	5.20	6.60	5	7.21
2.0-4.0	61	170.95	59	165.15	2	12.70	6.40	-	-
4.0-7.5	43	224.24	36	183.74	6	33.30	5.60	1	6.80
7.5-10.0	8	67.20	6	50.80	1	-	8.00	1	8.40
10.0 & above	5	70.40	3	44.80	2	-	-	-	-
Total	161	592.80	140	492.59 (83.10)	14	51.20 (8.63)	26.60 (4.49)	7	22.41 (3.73)

Not:- Figures in brackets show the percentages to the total number of 161 holdings and their total area (592.80 hectares).

It may be seen from Table 2.5 that out of total 161 holdings as many as 61 holdings were falling in the size group of 2.0-4.0 hectares having an area of 170.95 hectares. Whereas 43 holdings were located in the size group of 4.0-7.5 hectares contributing 224.24 hectares area. Only 5 holdings were under the size group of 10.0 hectares & above. The table further reveals that 83.10 percent and 13.12 percent of the total area were fully irrigated or partly irrigated during the year 2002-03 and the remaining 3.78 percent area has no irrigation facility. It is heartening of note that no unirrigated area was to exist in the size groups of 2.0-4.0 & 10.0 hectares & above.

2.6 Area under different crops (Irrigated and Unirrigated holdings)

Zone-wise and crop-wise distribution of irrigated/unirrigated area of selected holdings is given in Table 2.6 (a) and 2.6 (b), respectively.

Table 2.6 (a) Zone-wise and crop-wise distribution of irrigated area of selected holdings

(Area in hectares)					
Crops	Northern	Central	Western	Southern	Total
1	2	3	4	5	6
I. Cereals					
Paddy	86.85	36.40	12.00	7.20	142.45 (15.06)
Bajra	-	5.60	31.40	15.14	52.14 (5.51)
Maize	2.28	0.40	-	-	2.68 (0.28)
Wheat	94.24	83.10	91.80	53.90	323.04 (34.14)
Barley	-	-	1.10	3.40	4.50 (0.48)
Total Cereals	183.37	125.50	136.30	79.64	524.81 (55.47)
II. Pulses					
Gram	0.05	0.80	1.30	6.20	8.35 (0.88)
Other pulses	0.52	2.00	2.80	8.20	13.52 (1.43)
Total pulses	0.57	2.80	4.10	14.40	21.87 (2.31)
III. Cash crops					
Oilseeds (Rape & Mustard)	0.50	8.40	51.20	36.75	96.85 (10.24)
Sugarcane	39.70	9.90	0.40	1.40	51.40 (5.43)
Cotton (Desi)	-	3.00	29.30	-	32.30 (3.41)
Cotton (American)	-	4.70	38.45	0.40	43.55 (4.60)
Total cash crops	40.20	26.00	119.35	38.55	224.10 (23.69)
IV. Green Fodder	33.21	26.24	22.35	19.70	101.50 (10.73)
V. Other crops	12.46	9.40	25.40	26.56	73.82 (7.80)
Total of all crops	269.81	189.94	307.50	178.85	946.10 (100.00)

Note : Figures in brackets indicate percentages to total.

Table 2.6 (b) Zone-wise and crop-wise distribution of unirrigated area of selected holdings

(Area in hectares)					
Crops	Northern	Central	Western	Southern	Total
1	2	3	4	5	6
I. Cereals					
Paddy	-	-	-	-	-
Bajra	-	0.40	3.60	5.60	9.60 (24.23)
Maize	1.21	-	-	-	1.21 (3.05)
Wheat	3.11	0.70	0.40	0.40	4.61 (11.63)
Barley	-	-	-	-	-
Total Cereals	4.32	1.10	4.00	6.00	15.42 (38.91)
II. Pulses					
Gram	-	-	1.60	2.40	4.00 (10.10)
Other pulses	0.40	-	-	-	0.40 (1.01)
Total pulses	0.40	-	1.60	2.40	4.40 (11.11)
III. Cash crops					
Oilseeds (Rape & Mustard)	-	1.20	2.00	11.00	14.20 (35.84)
Sugarcane	-	-	-	-	-
Cotton (Desi)	-	-	0.40	-	0.40 (1.01)
Cotton (American)	-	-	-	-	-
Total cash crops	-	1.20	2.40	11.00	14.60 (36.85)
IV. Green Fodder	0.40	0.80	-	-	1.20 (3.03)
V. Other crops	1.00	-	-	3.00	4.00 (10.10)
Total of all crops	6.12	3.10	8.00	22.40	39.62 (100.00)

Note : Figures in brackets indicate percentages to total

It may be observed from the foregoing Tables 2.6 (a) and 2.6 (b) that the total irrigated and unirrigated area of all crops was 946.10 hectares and 39.62 hectares, respectively under different zone. The percentage of irrigated area under wheat was the highest (34.14) followed by paddy 15.06, green fodder 10.73 and oilseeds 10.24. Inference may also be drawn from Table 2.6 (a) that the highest irrigated area of all crops was observed in western zone 307.50 hectares whereas it was lowest in the southern zone i.e. 178.85 hectares. The figures in table 2.6 (b) also indicate that southern zone had maximum unirrigated area i.e. 22.40 hectares. The western zone was on the second position contributing 8.00 hectares unirrigated area.

The cropping pattern under unirrigated areas was substantially different than that of the irrigated areas. In case of unirrigated areas, the percentage under oilseeds was the highest i.e.

(35.84) followed by bajra 24.23, wheat 11.63 & gram 10.10 of the total unirrigated areas during the year 2002-03.

2.7 Intensity of Cropping

The choice and scope of various crops is determined by assured irrigation facilities and availability of improved high yielding varieties of seeds and other inputs. The total cropped area under various crops of selected holdings alongwith percentage of irrigated area and intensity of cropping are presented in Tables 2.7 (a), 2.7 (b) and 2.7 (c), respectively.

Table 2.7 (a) Area under different crops and crop-wise percentages of irrigated area to the total cropped area.

(Area in hectares)					
Sr.No.	Crops	Total cropped area (Irrigated & unirrigated)	Percentage to total cropped area	Irrigated area	%age of irrigated area to total cropped area
1	2	3	4	5	6
1.	Paddy	142.45	14.45	142.45	100.00
2.	Bajra	61.74	6.26	52.14	84.45
3.	Maize	3.89	0.39	2.68	68.90
4.	Wheat	327.65	33.25	323.04	98.59
5.	Barley	4.50	0.46	4.50	100.00
6.	Gram	12.35	1.25	8.35	67.61
7.	Other Pulses	13.92	1.41	13.52	97.13
8.	Oilseeds (Rape & Mustard)	111.05	11.27	96.85	87.21
9.	Sugarcane	51.40	5.21	51.40	100.00
10.	Cotton Desi	32.70	3.32	32.30	98.78
11.	Cotton American	43.55	4.42	43.55	100.00
12.	Green Fodder	102.70	10.42	101.50	98.83
13.	Other Crops	77.82	7.89	73.82	94.86
	Total	985.72	100.00	946.10	95.98

Figures table 2.7(a) indicate that the percentage of area under wheat was the highest 33.25, followed by paddy 14.45, oilseeds (Rape & Mustard) 11.27 and green fodder 10.42 under irrigated and unirrigated area. Whereas only 0.39 percent area was under maize. It is further reflected from Table 2.7 (a) that percentage of irrigated area to total cropped area was 100 in case of paddy, sugarcane & cotton (American) and it was closely followed by green fodder 98.83, cotton (Desi) and wheat respectively. The overall irrigated area to total cropped area was 95.98 percent.

The intensity of cropping under irrigated and unirrigated areas in all four zones has been shown in the following table:-

Table 2.7 (b) Zone-wise intensity of cropping under irrigated and unirrigated areas

Zone	Percentage of intensity		Total
	Irrigated	Unirrigated	
1	2	3	4
Northern	175.88	156.52	175.39
Central	176.16	63.20	171.26
Western	177.69	66.70	170.49
Southern	163.32	79.00	146.14
Overall intensity	173.98	80.80	166.28

The intensity of cropping has been worked out as under :-

Total cropped area: 100

Net area sown

The average intensity of cropping in the irrigated and unirrigated areas was 173.98% and 80.80%, respectively. The western zone showed the highest intensity (177.69) and southern had the lowest intensity i.e. 163.32 on irrigated land. In case of unirrigated land, the intensity of cropping was highest in northern zone of (156.52). The overall intensity was 166.28% for irrigated and unirrigated areas.

The intensity of cropping in respect of selected holdings for 2001-02 and 2002-03 is given below:-

Table 2.7 (c) Cropping intensity under irrigated and unirrigated areas for 2001-02 and 2002-03

Year	Irrigated	Unirrigated	Total
1	2	3	4
2001-2002	177.41	116.68	172.27
2002-2003	173.98	80.80	166.28

It may be seen from the above table that the cropping intensity for irrigated areas decreased to 173.98 during 2002-03 as compared to 177.41 in 2001-02. In case of unirrigated areas, the intensity of cropping had gone down 80% in 2002-03 as compared to 116.68% in 2001-2002. The overall cropping intensity also decreased from 172.27% in 2001-02 to 166.28% in 2002-2003.

2.8 Output per hectare

The output per hectare in irrigated areas in respect of some crops was found to be higher than that of unirrigated areas. The average yield per hectare of sugarcane was 49080 kgs, paddy 3975 kgs, wheat 3759 kgs, barley 2378 kgs, oilseeds 1052 kgs, respectively in irrigated areas. The average yield in unirrigated areas under wheat and oilseeds was 2603 kgs., 1528 kgs., respectively whereas no average yield per hectare was observed under barley crop. Zone-wise yield per hectare of different crops in irrigated and unirrigated land is given in Table 2.8(a) & 2.8(b), respectively.

Table 2.8 (a) Zone-wise yield per hectare of different crops under irrigated areas during 2002-2003

		(In Kgs.)				
Sr.No.	Crops	Northern	Central	Western	Southern	Average yield
1	2	3	4	5	6	7
A-Cereals						
1.	Paddy	4237	3734	3117	3472	3975
2.	Wheat (Grain)	3923	4077	3448	3514	3759
3.	Wheat (Bhusa)	3804	3847	3500	3417	3664
4.	Bajra (Grain)	-	982	570	423	572
5.	Maize (Grain)	2807	1000	-	-	2537
6.	Barley (Grain)	-	-	818	2882	2378
7.	Barley (Bhusa)	-	-	727	2412	2000
B-Pulses						
1.	Gram (Grain)	2000	1375	538	500	599
2.	Gram (Bhusa)	2000	1125	538	258	395
3.	Other Pulses (Grain)	577	650	607	329	444
C-Cash Crops						
1.	Oilseeds (Rape & Mustard)	200	952	1061	1075	1052
2.	Sugarcane	51940	40051	62500	28000	49080
3.	Cotton (Desi & American)	-	553	1234	-	1159

Table 2.8 (b) Zone-wise yield per hectare of different crops under unirrigated areas during 2002-03

		(In Kgs.)				
Sr.No.	Crops	Northern	Central	Western	Southern	Average yield
1	2	3	4	5	6	7
A-Cereals						
1.	Paddy	-	-	-	-	-
2.	Wheat (Grain)	2444	2571	2500	4000	2603
3.	Wheat (Bhusa)	2444	2571	2500	4000	2603
4.	Bajra (Grain)	-	1000	1500	500	292
5.	Maize (Grain)	1653	-	-	-	1653
6.	Barley (Grain)	-	-	-	-	-
7.	Barley (Bhusa)	-	-	-	-	-
B-Pulses						
1.	Gram (Grain)	-	-	1250	375	725
2.	Gram (Bhusa)	-	-	1250	375	725
3.	Other Pulses (Grain)	1000	-	-	-	1000
C-Cash Crops						
1.	Oilseeds (Rape & Mustard)	-	2083	1100	1545	1528
2.	Sugarcane	-	-	-	-	-
3.	Cotton (Desi and American)	-	-	500	-	500

The comparative study in regard to yield per hectare of major crops under irrigated and unirrigated areas during the years 2001-02 and 2002-03 has been made in the following table :-

Table 2.8 (c) Yield per hectare of major crops (irrigated and unirrigated) holdings for the years 2001-02 & 2002-03

		(In Kgs.)			
Sr.No.	Crops	2001-02		2002-03	
		Irrigated	Unirrigated	Irrigated	Unirrigated
1	2	3	4	5	6
1.	Paddy	4445	-	3975	-
2.	Wheat	3797	1579	3759	2603
3.	Barley	2250	-	2378	-
4.	Gram	482	853	599	725
5.	Cotton (Desi & American)	292@	-	1159	500

@ Crop partly damaged

It is evident from the above table that the average yield per hectare of paddy & wheat under irrigated areas decreased during 2002-03 as compared to the year 2001-02 whereas average yield per hectare of gram, barley & cotton increased under irrigated holdings in 2002-03. But in the case of unirrigated holdings, the average yield per hectare of wheat had shown increasing trend in the year 2002-03.

2.9 Capital investment in farm, agricultural machinery and equipments

The capital investment has been classified into two broad heads i.e. (a) investment to improve the farm and (b) investment in agricultural machinery and equipments.

(a) The capital investment in farm includes the following :-

- (i) Investment in land such as reclamation, improvement, fencing, terracing and bunding etc.
- (ii) Construction and maintenance of farm buildings, comprising of cattlesheds, tractor sheds, godown and stores etc. (excluding investment in dwelling houses).
- (iii) Acquisition and maintenance of drought animals.

(b) Capital investment in agricultural machinery and equipments includes the following :-

- (i) Agricultural implements and machinery including tractors with accessories, bar harrow, thrasher, cart, iron plough, cane crusher, chaff cutter and gur boiling pan etc.
- (ii) Installation of tubewells / pumping sets and sinking of wells. It also includes the cost of construction and remodeling of kacha and pucca water courses.

Zone-wise details of capital investment in farm and agricultural machinery/equipments are given in Table 2.9 (a)

Table 2.9 (a) Capital investment in farm agricultural machinery and equipments

(In Rs.)					
items	Northern	Central	Western	Southern	Total
1	2	3	4	5	6
A-Farm					
(i) Farm buildings, cattlesheds & other structures	410000 (17.94)	365952 (26.73)	313520 (25.07)	340440 (14.36)	1429912 (19.65)
(ii) Drought animals (including its acquisition)	19928 (0.87)	70520 (5.15)	118688 (9.49)	14800 (0.62)	223936 (3.08)
Total-A	429928 (18.81)	436472 (31.88)	432208 (34.56)	355240 (14.99)	1653848 (22.73)
B-Agricultural machinery					
(i) Tubewells/pumping sets	227376 (9.94)	159232 (11.63)	203928 (16.30)	285584 (12.05)	876120 (12.04)
(ii) Machinery and equipments	1628648 (71.25)	773568 (56.49)	614584 (49.14)	1729472 (72.96)	4746272 (65.23)
Total - B	1856024 (81.19)	932800 (68.12)	818512 (65.44)	2015056 (85.01)	5622392 (77.27)
Grand Total (A+B)	2285952 (100.00)	1369272 (100.00)	1250720 (100.00)	2370296 (100.00)	7276240 (100.00)
Investment per hectare	14531	12148	6759	17212	12274

The perusal of the table shows that the total capital investment on farm buildings and drought animals was 22.73% against 77.27% capital investment on Tubewells/pumping sets and machinery & equipments. The capital investment in farm was the highest (34.56%) in western zone whereas it was lowest (14.99%) in southern zone during the year 2002-03. Similarly, in case of agricultural machinery, capital investment ranged between 65% to 86% in different zones. The overall capital investment per hectare was worked out to Rs. 12274.

The percentage investment made in various types of agricultural machinery and equipment, tubewells/pumping sets of selected holdings is shown in Table 2.9 (b).

Table 2.9 (b) Capital investment in agricultural machinery and equipments and tubewells/ pumping sets

Sr. No.	Implements	Investment (In Rs.)	Percentage
1	2	3	4
1.	Tractor with accessories	3333192	59.26
2.	Tubewells/pumping sets	876120	15.58
3.	Thrashers	250184	4.45
4.	Carts	72272	1.29
5.	Chaff cutters	42784	0.76
6.	Bar harrows	211320	3.76
7.	Iron ploughs	18408	0.33
8.	Rollers	1880	0.03
9.	Seed drills	58952	1.05
10.	Gur boiling pans	-	-
11.	Cane crashers	-	-
12.	Miscellaneous (Triphali-Sohaga, Spray pumps etc.)	758880	13.49
Total		5622392	100.00

It may be observed from the above table that investment on tractor with accessories was 59.26% of the total capital investment on agricultural machinery and equipments followed by 15.58% on tubewells/pumping sets, 4.45% on thrashers, 3.76% on bar harrows and 1.29% on carts, respectively. The rest of the implements accounted for 15.66% of the total capital investment on agricultural machinery and equipments.

2.10 Use of chemical fertilizers

The study of farm accounts also reveals the extent of chemical fertilizers used as an input in the adoption of improved agricultural practices. Table 2.10 (a) shows the number and percentage of holdings using chemical fertilizers in all the four agro-climatic zones of the state.

Table 2.10 (a) Zone-wise number of holdings using chemical fertilizers

Zone	No. of selected holdings	No. of holdings found using chemical fertilizers	Percentage of col. 3 to col. 2
1	2	3	4
Northern	37	37	100.00
Central	43	43	100.00
Western	44	43	97.73
Southern	37	37	100.00
Total	161	160	99.38

Table 2.10 (a) reveals that 99.38 percent selected holding were using chemical fertilizers during the year 2002-03. Crop-wise area of the selected holdings where chemical fertilizers were used is presented in the following table :-

Table 2.10 (b) Total crop-wise area of holdings where chemical fertilizers were used

Sr. Crops No.		Irrigated			Unirrigated		
		Total cropped area	Area under chemical fertilizers	% age of col.4 to col.3	Total cropped area	Area under chemical fertilizers	% age of col.7 to col.6
1	2	3	4	5	6	7	8
1.	Paddy	142.45	142.45	100.00	-	-	-
2.	Bajra	52.14	26.54	50.90	9.60	4.80	50.00
3.	Maize	2.68	2.49	92.91	1.21	1.21	100.00
4.	Wheat	323.04	271.34	84.00	4.61	3.91	84.82
5.	Barley	4.50	0.80	17.78	-	-	-
6.	Sugarcane	51.40	47.80	93.00	-	-	-
7.	Cotton (Desi)	32.30	28.80	89.16	0.40	-	-
8.	Cotton(American)	43.55	37.50	86.11	-	-	-
9.	Oilseeds (Rape & Mustard)	96.85	93.55	96.59	14.20	12.55	88.38
10.	Green fodder	101.50	69.76	68.73	1.20	0.40	33.33
11.	Other crops	95.69	86.29	90.18	8.40	1.25	14.88
	Total	946.10	807.32	85.33	39.62	24.12	60.88

Zone-wise details of capital investment in farm and agricultural machinery/equipments are given in Table 2.9 (a)

Table 2.9 (a) Capital investment in farm agricultural machinery and equipments

(In Rs.)					
Items	Northern	Central	Western	Southern	Total
1	2	3	4	5	6
A-Farm					
(i) Farm buildings, cattlesheds & other structures	410000 (17.94)	365952 (26.73)	313520 (25.07)	340440 (14.36)	1429912 (19.65)
(ii) Drought animals (including its acquisition)	19928 (0.87)	70520 (5.15)	118688 (9.49)	14800 (0.62)	223936 (3.08)
Total-A	429928 (18.81)	436472 (31.88)	432208 (34.56)	355240 (14.99)	1653848 (22.73)
B-Agricultural machinery					
(i) Tubewells/pumping sets	227376 (9.94)	159232 (11.63)	203928 (16.30)	285584 (12.05)	876120 (12.04)
(ii) Machinery and equipments	1628648 (71.25)	773568 (56.49)	614584 (49.14)	1729472 (72.96)	4746272 (65.23)
Total - B	1856024 (81.19)	932800 (68.12)	818512 (65.44)	2015056 (85.01)	5622392 (77.27)
Grand Total (A+B)	2285952 (100.00)	1369272 (100.00)	1250720 (100.00)	2370296 (100.00)	7276240 (100.00)
Investment per hectare	14531	12148	6759	17212	12274

The perusal of the table shows that the total capital investment on farm buildings and drought animals was 22.73% against 77.27% capital investment on Tubewells/pumping sets and machinery & equipments. The capital investment in farm was the highest (34.56%) in western zone whereas it was lowest (14.99%) in southern zone during the year 2002-03. Similarly, in case of agricultural machinery, capital investment ranged between 65% to 86% in different zones. The overall capital investment per hectare was worked out to Rs. 12274.

The percentage investment made in various types of agricultural machinery and equipment, tubewells/pumping sets of selected holdings is shown in Table 2.9 (b).

Table 2.9 (b) Capital investment in agricultural machinery and equipments and tubewells/ pumping sets

Sr. No.	Implements	Investment (In Rs.)	Percentage
1	2	3	4
1.	Tractor with accessories	3333192	59.26
2.	Tubewells/pumping sets	876120	15.58
3.	Thrashers	250184	4.45
4.	Carts	72272	1.29
5.	Chaff cutters	42784	0.76
6.	Bar harrows	211320	3.76
7.	Iron ploughs	18408	0.33
8.	Rollers	1880	0.03
9.	Seed drills	58952	1.05
10.	Gur boiling pans	-	-
11.	Cane crashers	-	-
12.	Miscellaneous (Triphali-Sohaga, Spray pumps etc.)	758880	13.49
	Total	5623992	100.00

It may be observed from the above table that investment on tractor with accessories was 59.26% of the total capital investment on agricultural machinery and equipments followed by 15.58% on tubewells/pumping sets, 4.45% on threshers, 3.76% on bar harrows and 1.29% on carts, respectively. The rest of the implements accounted for 15.66% of the total capital investment on agricultural machinery and equipments.

2.10 Use of chemical fertilizers

The study of farm accounts also reveals the extent of chemical fertilizers used as an input in the adoption of improved agricultural practices. Table 2.10 (a) shows the number and percentage of holdings using chemical fertilizers in all the four agro-climatic zones of the state.

Table 2.10 (a) Zone-wise number of holdings using chemical fertilizers

Zone	No. of selected holdings	No. of holdings found using chemical fertilizers	Percentage of col. 3 to col. 2
1	2	3	4
Northern	37	37	100.00
Central	43	43	100.00
Western	44	43	97.73
Southern	37	37	100.00
Total	161	160	99.38

Table 2.10 (a) reveals that 99.38 percent selected holding were using chemical fertilizers during the year 2002-03. Crop-wise area of the selected holdings where chemical fertilizers were used is presented in the following table :-

Table 2.10 (b) Total crop-wise area of holdings where chemical fertilizers were used

Sr. No.	Crops	(Area in hectares)					
		Total cropped area	Irrigated Area under chemical fertilizers	% age of col.4 to col.3	Total cropped area	Unirrigated Area under chemical fertilizers	% age of col.7 to col.6
1	2	3	4	5	6	7	8
1.	Paddy	142.45	142.45	100.00	-	-	-
2.	Bajra	52.14	26.54	50.90	9.60	4.80	50.00
3.	Maize	2.68	2.49	92.91	1.21	1.21	100.00
4.	Wheat	323.04	271.34	84.00	4.61	3.91	84.62
5.	Barley	4.50	0.80	17.78	-	-	-
6.	Sugarcane	51.40	47.80	93.00	-	-	-
7.	Cotton (Desi)	32.30	28.80	89.16	0.40	-	-
8.	Cotton(American)	43.55	37.50	86.11	-	-	-
9.	Oilseeds (Rape & Mustard)	96.85	93.55	96.59	14.20	12.55	88.38
10.	Green fodder	101.50	69.76	68.73	1.20	0.40	33.33
11.	Other crops	95.69	86.29	90.18	8.40	1.25	14.88
	Total	946.10	807.32	85.33	39.62	24.12	60.88

The data given in Table 2.10(b) reflects that the percentage of area under chemical fertilizers in the irrigated holdings was the highest i.e. 100 in case of paddy, 84.00 wheat, 93.00 sugarcane, 87.41 cotton (Desi & American) crops followed by oilseeds 96.59, maize 92.91 and green fodder 68.73, respectively of the total irrigated area sown was under chemical fertilizers. In case of unirrigated area, it was 60.88% during the year 2002-2003.

2.11 Consumption of chemical fertilizers per hectare

It will be seen from Table 2.11 that the use of chemical fertilizers varied considerably in irrigated and unirrigated holdings. In irrigated areas, the consumption of chemical fertilizers depends on the soil texture and the extent of irrigation facilities available. The consumption of chemical fertilizers per hectare in case of sugarcane, paddy, wheat and other crops in irrigated area was 421.76 kgs., 389.86 kgs., 397.56 kgs., 343.43 kgs., respectively. The consumption of chemical fertilizers per hectare under different crops is given in Table 2.11.

Table 2.11 Consumption of chemical fertilizers per hectare under various crops during the year 2002-03

Sr. Crops No.	Irrigated			Unirrigated			
	Area under chemical fertilizers (hectares)	Total quantity of fertilizers used (kgs.)	Quantity per hect. (kgs.)	Area under chemical fertilizers (hectares)	Total quantity of fertilizers used (kgs.)	Quantity per hect. (kgs.)	
1	2	3	4	5	6	7	8
1. Paddy	142.45	55535	389.86	-	-	-	-
2. Bajra	26.54	2730	102.86	4.80	250	52.08	
3. Maize	2.49	250	100.40	1.21	100	82.64	
4. Wheat	271.34	107875	397.56	3.91	750	191.82	
5. Barley	0.80	925	1156.25	-	-	-	-
6. Sugarcane	47.80	20160	421.76	-	-	-	-
7. Cotton (Desi)	28.80	3490	121.18	-	-	-	-
8. Cotton (American)	37.50	8500	226.67	-	-	-	-
9. Oilseeds (Rape & Mustard)	93.55	18125	193.75	12.55	1825	145.42	
10. Green fodder	69.76	15130	216.89	0.40	-	-	-
11. Other crops	86.29	29635	343.43	1.25	1400	1120.00	
Total	807.32	262355	324.97	24.12	4325	179.31	

2.12 Operated area per permanent agricultural worker under different types of holdings

The operated area per permanent agricultural worker in various types of holdings in different zones is given below:

Table 2.12 Zone-wise operated area per permanent agricultural worker in various types of holdings (Area in hectares)

Particulars	Northern	Central	Western	Southern	Total
1	2	3	4	5	6
A Totally Irrigated holdings					
(i) Area	145.11	93.92	159.05	94.51	492.59
(ii) No. of agricultural workers	51	42	51	37	181
(iii) Operated area per agricultural worker	2.85	2.24	3.12	2.56	2.73
B Partly irrigated holdings					
(i) Area	11.00	18.80	22.80	25.20	77.80
(ii) No. of agricultural workers	2	6	3	4	15
(iii) Operated area per agricultural worker	5.50	3.14	7.60	6.30	5.19
C Unirrigated holdings					
(i) Area	1.21	-	3.20	18.00	22.41
(ii) No. of agricultural workers	1	-	2	4	7
(iv) Operated area per agricultural worker	1.21	-	1.60	4.50	3.21
Total holdings					
(i) Area	157.32	112.72	185.05	137.71	592.80
(ii) No. of agricultural workers	54	48	56	45	203
(iii) Operated area per agricultural worker	2.92	2.35	3.31	3.06	2.92

The perusal of Table 2.12 shows that the total operated area per permanent agricultural worker was 2.92 hectares. The operated area per agricultural worker in case of totally irrigated, partly irrigated and unirrigated holdings was 2.73, 5.19 and 3.21 hectares, respectively during 2002-03. The table further indicates that the western zone claimed the largest operated area i.e. 3.31 hectares per agricultural worker whereas central zone claimed the smallest area of 2.35 hectares.

2.13 Wages of agricultural workers

Average annual /daily wages of a permanent agricultural worker obtained in the four agro-climatic zones is shown in the following table:-

Table 2.13 Zone-wise wages of a permanent agricultural worker during 2002-03

Zone	wages paid (In Rs.)	
	Annually (**)	Daily (*)
1	2	3
Northern	21154	85
Central	20274	104
Western	18200	100
Southern	19343	98
Average	19368	97

* Exclusive of meal, tea, tobacco charges etc.

** Inclusive of meals, tea, tobacco charges etc.

The data given in Table 2.13 shows that during the year 2002-03, total wages paid to a permanent worker for various agricultural operations worked out to Rs. 19868. Besides, the permanent worker was also given meals, tea, tobacco etc. The daily wages paid to an agricultural worker (casual/hired) excluding daily facilities like meals, tea and tobacco were Rs. 97. The daily wages paid to the agricultural worker was the highest (Rs. 104) in central zone and the lowest (Rs. 85) in northern zone.

2.14 Operated area per plough under various types of holdings

The operated area per plough (Bullocks, Camels and Tractors) during the year 2002-03 under different types of holdings based on irrigation facilities in different zones is given in the following table :-

Table 2.14 Zone-wise operated area per plough under different types of holdings (Bullocks, Camels and Tractors) during the year 2002-03

Item	(Area in hectares)				
	Northern	Central	Western	Southern	Total
1	2	3	4	5	6
A Totally Irrigated holdings					
(i) Area	145.11	93.92	159.05	94.51	492.59
(ii) No. of plough	206	106	133	104	549
(iii) Operated area per plough	0.70	0.89	1.20	0.91	0.90
B Partly irrigated holdings					
(i) Area	11.00	18.80	22.80	25.20	77.80
(ii) No. of plough	17	20	11	18	66
(iii) Operated area per plough	0.65	0.94	2.07	1.40	1.18
C Unirrigated holdings					
(i) Area	1.21	-	3.20	18.00	22.41
(ii) No. of plough	2	-	-	16	18
(iii) Operated area per plough	0.61	-	-	1.13	1.26
Total holdings					
(i) Area	157.32	112.72	185.05	137.71	592.80
(ii) No. of plough	225	126	144	138	633
(iii) Operated area per plough	0.70	0.90	1.29	1.00	0.94

Note :- One Tractor = 8 Pair of Bullocks
One Camel = 1 Pair of Bullocks

It is revealed from the above table that the operated area per plough during the year 2002-03 taking into account both animal and tractor power worked out to 0.94 hectares. The operated area per plough was highest (1.26 hectares) in case of unirrigated holdings. Among different zones, the figures varied from 0.70 hectares to 1.20 hectares under different types of holdings.

2.15 Number of working days per plough under different types of holdings

Table 2.15 shows that a cultivator on an average actually worked with his plough for 50 days during the year 2002-03.

Table 2.15 Number of working days per plough under various types of holdings during 2002-03

Type of holdings	Northern	Central	Western	Southern	Total
1	2	3	4	5	6
A Totally irrigated holdings					
(i) No. of working days	10018	5818	10991	6358	33185
(ii) No. of plough	206	106	133	104	549
(iii) No. of working days per plough	49	55	83	61	60
B Partly irrigated holdings					
(i) No. of working days	323	2033	727	1195	4278
(ii) No. of plough	17	20	11	18	66
(iii) No. of working days per plough	19	102	66	66	65
C Unirrigated holdings					
(i) No. of working days	80	-	-	194	274
(ii) No. of plough	2	-	-	16	18
(iv) No. of working days per plough	40	-	-	12	15
D Total (A+B+C)					
(i) No. of working days	10421	7851	11718	7747	37787
(ii) No. of plough	225	126	144	138	633
(iii) No. of working days per plough	46	62	81	56	60

The above table reveals that on an average, a cultivator worked with his plough for 60 days during the year 2002-03. The number of working days per plough was higher (65 days) in partly irrigated holdings than that of unirrigated holdings (15 days). It is also evident from the table that the maximum number of working days per plough was 81 in western zones and minimum 46 in northern zone.

2.16 Maintenance cost per pair of bullocks

The break-up of maintenance cost per pair of bullocks is shown in Table 2.16.

Table 2.16 Zone-wise break up of the maintenance cost per pair of bullocks during 2002-03

(In Rs.)

Sr.No.	Item	Northern	Central	Western	Southern	Overall average
1	2	3	4	5	6	7
1	Fodder	4327 (44.00)	4865 (46.28)	4387 (46.37)	4000 (26.53)	4395 (32.72)
2	Concentrates	645 (6.00)	847 (8.06)	479 (5.06)	1000 (6.63)	2971 (22.12)
3	Upkeep labour	3635 (37.00)	3652 (34.74)	3244 (34.29)	6000 (39.80)	4133 (30.77)
4	Interest & depreciation on capital cost	726 (7.00)	674 (6.41)	1012 (10.70)	3700 (24.55)	1528 (11.38)
5	Housing (Cattleshed)	396 (4.00)	409 (3.89)	314 (3.32)	375 (2.49)	373 (2.78)
6	Medical care & miscellaneous	33 (0.32)	65 (0.62)	25 (0.26)	-	31 (0.23)
	Total	9762 (100.00)	10512 (100.00)	9461 (100.00)	15075 (100.00)	13431 (100.00)

It may be observed from Table 2.16 that average maintenance cost per pair of bullocks during 2002-03 was Rs. 13431. The expenditure on fodder and concentrates taken together formed 54.84% of the total maintenance cost. The percentage of upkeep labour and interest on capital investment on bullocks was 30.77 and 11.38, respectively. The expenditure on housing (cattleshed) and medical care was merely 2.75% and 0.23%, respectively. The maintenance cost per pair of bullocks was highest i.e. Rs. 15075 in southern zone and minimum Rs. 9461 in western zone during 2002-03.

Table 2.16: Average maintenance cost per pair of bullocks during 2002-03

Sl. No.	Zone	Sub-zone	Maintenance cost per pair of bullocks (Rs.)
1	North	North	13431
2	North	South	13431
3	North	West	13431
4	North	East	13431
5	North	South	13431
6	North	West	13431
7	North	East	13431
8	North	South	13431
9	North	West	13431
10	North	East	13431
11	North	South	13431
12	North	West	13431
13	North	East	13431
14	North	South	13431
15	North	West	13431
16	North	East	13431
17	North	South	13431
18	North	West	13431
19	North	East	13431
20	North	South	13431
21	North	West	13431
22	North	East	13431
23	North	South	13431
24	North	West	13431
25	North	East	13431
26	North	South	13431
27	North	West	13431
28	North	East	13431
29	North	South	13431
30	North	West	13431
31	North	East	13431
32	North	South	13431
33	North	West	13431
34	North	East	13431
35	North	South	13431
36	North	West	13431
37	North	East	13431
38	North	South	13431
39	North	West	13431
40	North	East	13431
41	North	South	13431
42	North	West	13431
43	North	East	13431
44	North	South	13431
45	North	West	13431
46	North	East	13431
47	North	South	13431
48	North	West	13431
49	North	East	13431
50	North	South	13431
51	North	West	13431
52	North	East	13431
53	North	South	13431
54	North	West	13431
55	North	East	13431
56	North	South	13431
57	North	West	13431
58	North	East	13431
59	North	South	13431
60	North	West	13431
61	North	East	13431
62	North	South	13431
63	North	West	13431
64	North	East	13431
65	North	South	13431
66	North	West	13431
67	North	East	13431
68	North	South	13431
69	North	West	13431
70	North	East	13431
71	North	South	13431
72	North	West	13431
73	North	East	13431
74	North	South	13431
75	North	West	13431
76	North	East	13431
77	North	South	13431
78	North	West	13431
79	North	East	13431
80	North	South	13431
81	North	West	13431
82	North	East	13431
83	North	South	13431
84	North	West	13431
85	North	East	13431
86	North	South	13431
87	North	West	13431
88	North	East	13431
89	North	South	13431
90	North	West	13431
91	North	East	13431
92	North	South	13431
93	North	West	13431
94	North	East	13431
95	North	South	13431
96	North	West	13431
97	North	East	13431
98	North	South	13431
99	North	West	13431
100	North	East	13431

CHAPTER-III

ECONOMICS ANALYSIS OF SELECTED HOLDINGS

General

Efforts have been made to present an overall analysis of input and output per hectare of area of the selected holdings. In this chapter, the profit and loss per hectare of area held and cropped by the cultivators under irrigated and unirrigated holdings have been studied and worked out separately.

3.1 Gross Income

Gross income is the total value of the farm produce whether consumed at home, stocked for sale or future use, sold in the market, paid in kind as wages to farm labourers or disposed off in any other way. It consists of the cash value of the produce actually sold and the value of the remaining produce estimated at harvest price prevalent in the village. Crop-wise average gross return per hectare under irrigated and unirrigated holdings has been worked out for each zone separately. The crop-wise and zone-wise average gross income under irrigated and unirrigated holdings have been shown in Tables 3.1(a) and 3.1(b), respectively.

Table 3.1 (a) Zone-wise average gross income per hectare from different crops in irrigated holdings during 2002-03

		(In Rs.)				
Sr.No.	Crops	Northern	Central	Western	Southern	Overall average
1	2	3	4	5	6	7
1.	Paddy	29340	34857	23396	24931	30026
2.	Wheat (Grain)	24694	25767	21658	22161	23685
3.	Wheat (Bhusa)	4521	5076	4007	4200	4464
4.	Barley (Grain)	-	-	3954	14164	11669
5.	Barley (Bhusa)	-	-	727	2365	1964
6.	Bajra (Grain)	-	5393	3237	2457	3242
7.	Maize (Grain)	15175	6000	-	-	13806
8.	Gram (Grain)	40000	22000	8477	7732	9408
9.	Gram (Bhusa)	-	6038	846	903	1381
10.	Other pulses (Grain)	9135	11550	13392	4111	7327
11.	Other pulses (Bhusa)	-	278	-	122	111
12.	Cotton (Desi)	-	12000	23921	-	22814
13.	Cotton (American)	-	10085	21640	-	20195
14.	Cotton (Sticks)	-	499	505	-	381
15.	Sugarcane	46861	40611	50000	26339	45123
16.	Oilseeds (Rape & Mustard)	3200	16643	18570	17080	17753
17.	Green fodder	20979	16368	12374	7614	15077
18.	Stalks of Paddy, Jowar, Bajra, Maize & sugarcane	4573	3876	1707	1946	3252
19.	Other crops	21340	23691	12809	8557	14105

Table 3.1 (b) Zone-wise average gross income per hectare from different crops in unirrigated holdings during 2002-03

		(In Rs.)				
Sr.No.	Crops	Northern	Central	Western	Southern	Overall average
1	2	3	4	5	6	7
1.	Paddy	-	-	-	-	-
2.	Wheat (Grain)	15524	16200	15750	26000	16555
3.	Wheat (Bhusa)	3006	2571	4500	8000	3503
4.	Barley (Grain)	-	-	-	-	-
5.	Barley (Bhusa)	-	-	-	-	-
6.	Bajra (Grain)	-	6000	1000	321	813
7.	Maize (Grain)	9917	-	-	-	9917
8.	Gram (Grain)	-	-	21250	5250	11650
9.	Gram (Bhusa)	-	-	1562	708	1050
10.	Other pulses (Grain)	15000	-	-	-	15000
11.	Other pulses (Bhusa)	3000	-	-	-	3000
12.	Cotton (Desi)	-	-	8500	-	8500
13.	Cotton (American)	-	-	-	-	-
14.	Cotton (Sticks)	-	-	-	-	-
15.	Sugarcane	-	-	-	-	-
16.	Oilseeds (Rape & Mustard)	-	34375	20700	28090	27581
17.	Green fodder	12500	17500	-	-	15833
18.	Stalks of Jowar, Bajra, Maize & sugarcane	-	-	-	4808	4808
19.	Other crops	22500	-	-	3833	8500

It may be seen from Tables 3.1(a) & 3.1(b) that the gross return per hectare of major crops of irrigated holdings has an edge over the gross income of unirrigated holdings. The gross return per hectare of sugarcane, paddy, wheat, oilseeds & green fodder of irrigated holdings i.e. Rs. 45123, Rs. 30026, Rs. 23685, Rs. 17758 and Rs. 15077, respectively. The corresponding figures for the unirrigated holdings of oilseeds, green fodder, wheat were Rs. 27581, Rs. 15833 and Rs. 16555, respectively. Group-wise gross income, expenditure and net income per hectare of peasant proprietorship and peasant proprietorship-cum-tenant under irrigated and unirrigated holdings have been presented in Table 3.2.

Table 3.2 Group-wise gross income, expenditure and net income per hectare of peasant-Proprietorship and peasant-proprietorship-cum-tenant under irrigated and unirrigated holdings during 2002-03

Size group of holdings (hectares)	(In Rs.)					
	Peasant-proprietorship			Peasant-proprietorship-cum-tenant		
	Gross Income	Expenditure	Net Income	Gross Income	Expenditure	Net Income
1	2	3	4	5	6	7
Irrigated						
Below 2.0	40563	18287	22276	46444	26720	19724
2.0-4.0	43657	21405	22251	51229	30994	20234
4.0-7.5	34594	18415	16179	40640	26794	13846
7.5-10.0	29223	14353	14870	56264	30464	25800
10.0 & above	2939	1101	1837	52286	33939	18341
Average	38755	19112	19643	48904	29898	19006
Unirrigated						
Below 2.0	12606	6516	6090	16960	10617	6343
2.0-4.0	6458	7674	1216	-	-	-
4.0-7.5	11073	3926	7147	-	-	-
7.5-10.0	12341	5506	9047	-	-	-
10.0 & above	-	-	-	-	-	-
Average	11783	5525	6258	16960	10617	6343
Overall average	35975	17712	18263	48402	29600	18802

The figures indicated in Table 3.2 show that gross income per hectare under peasant-proprietorship was highest in the size group of 2.0-4.0 hectares as compared to the other size groups in the irrigated holdings whereas the income per hectare was minimum in the size group of 10.0 hectares & above. In case of unirrigated size group of holdings, the maximum gross income was recorded in the size group of below 2.0 hectares followed by size group of 7.5-10.0 hectares. Similarly, under peasant-proprietorship-cum-tenant holdings the highest gross income was observed in the size group of 7.5-10.0 hectares and above whereas the size group of 10.0 & above hectares was on the second position followed by 2.0-4.0 hectares group.

3.2 Input-Output analysis of the holdings

The main objective of this study is to find out the input-output ratio under two types of land tenure systems. Before assessing the gross income, expenditure and net income per hectare from cultivation on the sampled holdings, it is worthwhile to explain about the land tenure systems namely peasant proprietorship and peasant proprietorship-cum-tenant prevalent in the state is presented in the following paragraphs:-

(A)- Peasant Proprietorship

Peasant proprietorship possesses the right of ownership. He has the right to sell, transfer it by gift, mortgage or pass it on to descendants. He cultivates the land with his own family members. The cost of cultivation under this system includes manual labour (excluding imputed value of wages of family workers and exchange labour), bullocks labour (excluding imputed value of bullocks, upkeep labour by family workers), seeds, farm yard manure, chemical fertilizers,

irrigation charges (including tubewell electricity bills, canal water charges, repair of tubewell etc), implements and machinery, interest on capital investment (excluding depreciation on capital investment), payments made to artisans, cost of spray of insecticides/pesticides etc and miscellaneous costs (cost of bunding, fencing and land leveling etc). The rental value of owned land has been excluded from this cost.

(B) Peasant proprietorship-cum-tenant

Under this system, he acquires some additional land on rent/batal in addition to his own land to supplement his income. The terms and conditions of rent lease i.e. cash or kind depend on local conditions and urgency of his requirements. He is assisted by his family members and seeks hired labour in agricultural operations. The cost of cultivation under this system includes manual labour (excluding imputed value of wages of family workers and exchange labour), bullocks labour (excluding imputed value of upkeep labour), seeds, farm yard manure, chemical fertilizers, irrigation charges (tubewell electricity bills, canal water charges and repairs etc.), implements and machinery, interest on capital investment, payments made to artisans, cost of spray of insecticides/pesticides etc. and miscellaneous costs (cost of bunding, fencing and land leveling etc.) and rental value of leased in land.

The gross income, expenditure and net income per hectare (zone-wise) under peasant proprietorship & peasant proprietorship-cum-tenant system have been calculated separately for irrigated and unirrigated areas and is shown in Table 3.3.

Table 3.3 Zone-wise net income per hectare of peasant proprietorship and peasant proprietorship-cum-tenant under irrigated and unirrigated holdings separately during 2002-03

Zone	Peasant proprietorship			Peasant proprietorship-cum-tenant		
	Gross Income	Expenditure	Net Income	Gross Income	Expenditure	Net return
1	2	3	4	5	6	7
Irrigated						
Northern	53341	27288	26053	55981	34474	21507
Central	47157	20271	26885	52853	27667	25186
Western	33681	15547	18134	44398	23052	16346
Southern	26023	16154	9869	31625	24313	7312
Average	38755	19112	19643	48904	29898	19006
Unirrigated						
Northern	19620	8155	11465	16960	10617	6343
Central	11302	11089	213	-	-	-
Western	7944	3945	3999	-	-	-
Southern	13078	5149	7928	-	-	-
Average	11783	5525	6258	16960	10617	6343
Overall average	35975	17712	18263	48402	29600	18802

It is observed from the above table that overall average gross income, expenditure and net income per hectare for irrigated and unirrigated areas taken together under peasant proprietorship worked out to Rs. 35975, Rs. 17712 and Rs. 18263, respectively. Under peasant proprietorship-cum-tenant holdings, the average gross income, expenditure and income per hectare for irrigated and unirrigated areas was estimated at Rs. 48402, Rs. 29600 and Rs. 18802, respectively. The table

further shows that gross income in irrigated areas under both land tenant systems was the highest in northern zone whereas the lowest income was recorded in southern zone.

3.3 Comparative position of net income under two types of land tenure systems

The group wise & zone-wise data regarding net income per hectare under peasant proprietorship & peasant-proprietorship-cum-tenant system of holdings has been worked out in Table 3.4

Table 3.4 Group-wise and zone-wise net income per hectare according to peasant proprietorship & peasant-proprietorship-cum-tenant system

A- Group wise	Peasant proprietorship	Peasant proprietorship-cum-tenant
1	2	3
Irrigated		
Below 2.0	22276	19724
2.0-4.0	22252	20234
4.0-7.5	16179	13846
7.5-10.0	14870	25800
10 & above	1837	18347
Average	19643	19006
Unirrigated		
Below 2.0	6090	6343
2.0-4.0	1216	-
4.0-7.5	7147	-
7.5-10.0	9047	-
10 & above	-	-
Average	6258	6343
B- Zone wise		
Irrigated		
Northern	26053	21507
Central	26885	25186
Western	18134	16346
Southern	9869	7312
Average	19643	19006
Unirrigated		
Northern	11465	6343
Central	213	-
Western	3999	-
Southern	7928	-
Average	6258	6343
Overall average	18263	18802

Inferences can be drawn from the above table that the holdings under peasant proprietorship are more profitable than the peasant proprietorship-cum-tenant. The overall average net income per hectare of the operated area of a peasant proprietorship and peasant proprietorship-cum-tenant was Rs. 18263 and Rs. 18802, respectively under different size of groups as well as in zones during 2002-2003.

CHAPTER - IV

SUMMARY AND CONCLUSION

The report on 'Economics of Farming in Haryana' provides a comprehensive analysis of a cultivator's farm economy and highlights indepth his gross income, expenditure and net income per hectare of irrigated and unirrigated holdings. Besides, it gives information about the extent of use of improved seeds, agricultural implements and machinery, consumption of chemical fertilizers, labour and employment etc. The present report makes a detailed study of 161 selected holdings under two commonly practised systems of land tenure i.e. peasant proprietorship and peasant proprietorship-cum-tenant.. The main findings of the study are as under :-

1. The total operated area of 161 selected holdings under this study was 592.80 hectares. Out of which, the area under peasant proprietorship and peasant proprietorship-cum-tenant was 442.23 hectares and 150.57 hectares, respectively. The average size of holdings was 3.68 hectares.
2. Out of total 161 selected holdings, 140 holdings (86.95%) were irrigated and 7 holdings (4.35%) were unirrigated. The remaining 14 holdings (8.70%) were partly irrigated. The analysis has further revealed that 91.73% of the area held under selected holdings was irrigated. The average intensity of cropping on irrigated and unirrigated lands of selected holdings worked out to 173.98% and 80.80%, respectively. The overall intensity was 166.28%.
3. The study revealed that the great difference was found in the cropping pattern under irrigated and unirrigated areas. In case of irrigated areas, the percentage of cultivated area under cereals, pulses and cash crops was 55.47, 2.31 and 23.69 as against 38.91, 11.11 and 36.85, respectively in case of unirrigated areas.
4. The study further indicated that 99.38% selected holdings used chemical fertilizers. The average consumption of chemical fertilizers per hectare in irrigated and unirrigated area was 324.97 kgs., and 179.31 kgs., respectively.
5. The total capital investment per hectare was found to be Rs.12274, out of which 77.27% was utilised for agricultural machinery & tubewell/pumping sets and remaining 22.73% on farm building, cattlesheds and draught animals.
6. The average operated area per permanent worker was 2.92 hectares. A permanent hired agricultural worker was paid Rs. 19868 per annum while a casual daily wage worker was given Rs. 97 per day.
7. Average yield per hectare of paddy, wheat, bajra, maize, barley, gram, oilseeds & sugarcane was 3975 kgs., 3759 kgs., 572 kgs., 2537 kgs., 2378 kgs., 599 kgs., 1052 kgs., and 49080 kgs., respectively on irrigated land as compared to 2603 kgs., yield of wheat, bajra, 292 kgs., maize 1653 kgs., gram 725 kgs. oilseeds 1528 kgs., respectively under unirrigated land.
8. The gross income per hectare of different crops like wheat, gram, sugarcane & oilseeds was Rs. 23685, Rs. 9408, Rs. 45123 and Rs. 17758, respectively in irrigated areas. The corresponding figures under wheat, gram & oilseeds crops were Rs. 16555, Rs. 11650 & 27581, respectively in unirrigated areas.

9. The average gross income of peasant proprietor per hectare worked out to Rs. 38755 on irrigated lands as against Rs. 11783 on barani lands and average net income per hectare calculated at Rs. 19643 from irrigated lands as compared to Rs. 6258 from unirrigated lands. In case of peasant proprietorship-cum-tenant holdings, the average gross income per hectare was calculated at Rs. 48904 on irrigated lands as against Rs. 16960 on unirrigated lands. Average net income per hectare worked out to Rs. 19006 from irrigated lands as compared to Rs. 6343 from barani lands.
10. The gross income per hectare of operated area of peasant proprietorship & peasant proprietorship-cum-tenant was Rs. 35975 & Rs. 48402, during the year 2002-2003.
11. The study further concluded that per hectare expenditure realised by the sampled cultivators from farm cultivation was Rs. 17712 & Rs. 29600 respectively under peasant proprietorship & peasant proprietorship-cum-tenant.
12. The net income per hectare of operated area came out to Rs. 18263 & Rs. 18802 under both types of land tenure systems during 2002-03.

APPENDIX-I

List of Selected Holdings (2002-2003)

(Area in hectares)					
Zone	District	Holdings	Irrigated	Unirrigated	Total
1	2	3	4	5	6
Northern	Ambala	Alipur	2.80	-	2.80
		Sullar	3.20	-	3.20
		Mohra	5.20	-	5.20
		Barara	3.70	-	3.70
		Patvi	3.00	2.00	5.00
	Panchkula	Morni	-	1.21	1.21
		Surajpur	3.20	-	3.20
		Kiratpur	3.20	-	3.20
		Barwala	3.80	-	3.80
		Bada Gaon	1.20	-	1.20
	Karnal	Bazidpur	1.51	-	1.51
		Dadupur Roran	1.70	-	1.70
		Garhi Gujran	1.80	-	1.80
		Bijna	1.50	-	1.50
		Arainpura	3.90	-	3.90
	Kurukshetra	Fusgarh	5.40	-	5.40
		Padhana	9.00	-	9.00
		Khanpur Kolian	3.90	-	3.90
		Jandhera	4.40	-	4.40
		Kamoda	4.60	-	4.60
	Panipat	Sandholi	2.00	-	2.00
		Dadlu	4.80	-	4.80
		Phalsanda Rangran	5.80	-	5.80
		Thaska Miranji	5.30	0.70	6.00
		Diwana	1.80	-	1.80
	Yamuna Nagar	Didwari	2.40	-	2.40
		Hathwala	2.40	-	2.40
		Nara Khurd	3.00	-	3.00
		Kurar	4.00	-	4.00
		Sabepur	2.40	-	2.40
		Bheel Chhappar	3.00	-	3.00
		Jubbal	3.30	-	3.30
		Sarawan	3.40	-	3.40
		Radauri	4.80	-	4.80
		Gundiana	7.20	-	7.20
		Dariyapur	10.80	-	10.80
		Balachaur	20.00	-	20.00
Total			153.41	3.91	157.32

Zone	District	Holdings	Irrigated	Unirrigated	Total
1	2	3	4	5	6
Centran	Jind	Dalamwala	1.10	-	1.10
		Naguran	2.60	-	2.60
		Palwan	2.00	-	2.00
		Budha Khera	2.40	-	2.40
		Shila Kheri	4.30	-	4.30
		Chopra patti (Narwana)	3.60	-	3.60
		Barah Kalan	4.00	-	4.00
		Desh Khera	4.80	-	4.80
		Budha Khera	3.70	-	3.70
		Chopra patti (Narwana)	4.80	-	4.80
		Uchana Khurd	1.30	-	1.30
	Kaithal	Chhot	0.80	-	0.80
		Rajaund	2.00	-	2.00
		Mohna	2.00	-	2.00
		Kharak Pandwan	2.80	-	2.80
		Harigarh Kingan	2.80	-	2.80
		Barot	3.20	-	3.20
		Barot	8.80	-	8.80
	Rohtak	Bhalot	0.80	-	0.80
		Bhalot	1.00	-	1.00
		Kheri Sampla	1.00	-	1.00
		Kheri Sampla	1.40	-	1.40
		Lakhan Majra	2.00	-	2.00
		Madina	1.40	1.00	2.40
		Bhali Anandpur	3.20	0.80	4.00
		Lakhan Majra	2.00	-	2.00
	Jhajjar	Dhandhlan	1.52	-	1.52
		Dhandhlan	1.52	-	1.52
		Matanhel	1.60	-	1.60
		Salhawass	2.00	-	2.00
		Salhawass	2.00	-	2.00
		Hasanpur	2.80	-	2.80
		Hasanpur	2.80	-	2.80
		Duihera	3.20	-	3.20
	Sonipat	Ridhau	0.40	-	0.40
		Kheri Dhamkan	1.30	0.30	1.60
		Mudlana	1.50	0.40	1.90
		Rohat	2.20	-	2.20
		Bhigan	2.20	-	2.20
		Rai	2.40	-	2.40
		Mohana	2.60	0.80	3.40
		Chitana	4.08	-	4.08
		Gudha	3.90	1.60	5.50
	Total	107.82	4.90	112.72	

Zone	District	Holdings	Irrigated	Unirrigated	Total
1	2	3	4	5	6
Western	Bhiwani	Hetam Pura	-	1.60	1.60
		Gignow	1.60	-	1.60
		Chandeni	1.60	-	1.60
		Gignow	1.60	-	1.60
		Jattu Lohari	2.00	-	2.00
		Jattu Lohari	2.00	-	2.00
		Chang	2.00	-	2.00
		Hetam Pura	-	1.60	1.60
		Loharwara	2.40	-	2.40
		Loharwara	3.20	-	3.20
		Chang	3.20	-	3.20
		Chandeni	3.20	-	3.20
		Bhariwas	4.00	-	4.00
		Sagwan	4.80	-	4.80
		Sagwan	4.80	-	4.80
		Dhani Hunat	6.80	8.00	14.80
	Hisar	Litani	1.10	-	1.10
		Majra	1.70	-	1.70
		Data	2.00	-	2.00
		Arya Nagar	2.80	-	2.80
		Behbalpur	3.25	-	3.25
		Bhatol Jattan	3.60	-	3.60
		Pabra	3.00	-	3.00
		Sarsod	2.80	-	2.80
		Dhiranwas	4.30	-	4.30
		Harikot	4.55	-	4.55
	Fatehabad	Narnaund	6.40	-	6.40
		Agroha	7.20	0.80	8.00
		Balawas	9.00	-	9.00
		Kavrale	8.40	-	8.40
		Moda Khera	14.00	-	14.00
		Kanheri	1.00	-	1.00
		Nahla	4.00	-	4.00
		Matana	5.40	-	5.40
		Aharwan	6.80	-	6.80
		Bhattu Kalan	6.40	-	6.40
	Sirsa	Abholi	1.05	-	1.05
		Bhawdin	2.00	-	2.00
		Malekan	2.30	-	2.30
		Panihari	3.20	-	3.20
		Nejia Khera	4.00	-	4.00
		Banwala	6.40	-	6.40
		Odhan	7.20	-	7.20
		Sahuwala	6.00	-	6.00
		Total	173.05	12.00	185.05

Zone	District	Holdings	Irrigated	Unirrigated	Total
1	2	3	4	5	6
Southern	Faridabad	Likhi	1.20	-	1.20
		Prithla	2.40	-	2.40
		Prithla	2.40	-	2.40
		Bhupgarh	3.70	-	3.70
		Nacholi	4.00	-	4.00
		Nacholi	4.00	-	4.00
		Likhi	4.36	-	4.36
		Midkola	4.80	-	4.80
		Sikri	6.60	-	6.60
		Sikri	6.60	-	6.60
	Gurgaon	Bonda Kalan	3.60	-	3.60
		Jamalpur	1.20	-	1.20
		Nasir Was	4.80	2.00	6.80
		Padheni	1.00	-	1.00
		Bhondsi	1.00	0.20	1.20
		Khentawas	2.40	-	2.40
		Wazir Pur	7.60	-	7.60
		Malab	-	6.80	6.80
		Bichhor	8.00	-	8.00
		Kheri Nuh	-	8.40	8.40
	Mahendergarh	Uninda	1.00	-	1.00
		Napla	-	1.20	1.20
		Sehlang	1.60	-	1.60
		God	-	1.60	1.60
		Kanina	3.00	-	3.00
		Riwasa	5.75	-	5.75
		Shaharpur	1.70	-	1.70
		Nangal Nunia	4.00	2.40	6.40
	Rewari	Satnali	5.20	5.60	10.80
		Suthana	0.80	-	0.80
		Manethi	1.20	-	1.20
		Palhawas	1.20	-	1.20
		Palhawas	1.60	-	1.60
		Manethi	1.60	-	1.60
		Maheshwari	3.20	-	3.20
		Nahar	3.60	-	3.60
		Suthana	4.40	-	4.40
Total		109.51	28.20	137.71	

APPENDIX - II-A

Cropped area, Yield and its Value of crops sown on Irrigated Land (Kharif) 2002-03

Zone	District	Holdings	Paddy			Bajra		
			Area (Hects)	Yield (Qtls)	Value (Rs.)	Area (Hects)	Yield (Qtls)	Value (Rs.)
1	2	3	4	5	6	7	8	9
Northern	Ambala	Alipur	1.40	70.00	40600	-	-	-
		Sullar	2.40	75.00	49900	-	-	-
		Mohra	3.80	132.00	84560	-	-	-
		Barara	3.00	114.00	75000	-	-	-
		Patvi	-	-	-	-	-	-
	Panchkula	Surajpur	-	-	-	-	-	-
		Kiratpur	0.32	10.00	5800	-	-	-
		Barwala	1.40	60.00	34800	-	-	-
	Karnal	Bada Gaon	1.20	78.00	39390	-	-	-
		Bazidpur	1.11	60.00	30000	-	-	-
		Dadupur Roran	1.50	55.00	52000	-	-	-
		Garhi Gujran	0.70	39.00	21060	-	-	-
		Bijna	1.40	68.00	39440	-	-	-
		Arainpura	2.80	140.00	70000	-	-	-
		Fusgarh	2.82	154.00	69300	-	-	-
		Padhana	6.90	276.00	174984	-	-	-
	Kurukshetra	Khanpur Kolian	3.90	190.00	110200	-	-	-
		Jandhera	2.00	90.00	90000	-	-	-
		Kamoda	4.20	178.00	99580	-	-	-
		Sandholi	1.80	67.00	30150	-	-	-
		Dadlu	3.00	155.00	89900	-	-	-
		Phalsanda Rangran	2.40	132.00	72500	-	-	-
		Thaska Miranji	4.50	202.00	113120	-	-	-
	Panipat	Diwana	1.40	46.00	40160	-	-	-
		Didwari	2.00	62.00	83700	-	-	-
		Hathwala	1.60	64.00	43260	-	-	-
		Nara Khurd	2.80	70.00	98000	-	-	-
		Kurar	3.00	105.00	100300	-	-	-
	Yamuna Nagar	Sabepur	0.70	32.00	32000	-	-	-
		Bhil chhappar	0.40	12.00	6960	-	-	-
		Jubbal	1.60	60.00	57000	-	-	-
		Sarawan	2.00	90.00	65300	-	-	-
		Radauri	2.00	69.00	46300	-	-	-
		Guniana	2.00	75.00	75000	-	-	-
		Dariyapur	4.80	230.00	128300	-	-	-
		Balachaur	10.00	420.00	378000	-	-	-

Cotton (American)			Cotton Sticks	Sugarcane (Cane & Seed)		
Area (Hects)	Yield (Qtls)	Value (Rs.)	Value (Rs.)	Area (Hects)	Yield (Qtls)	Value (Rs.)
21	22	23	24	25	26	27
-	-	-	-	1.00	600.00	45000
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	0.40	350.00	35000
-	-	-	-	1.60	600.00	51000
-	-	-	-	-	-	-
-	-	-	-	2.00	800.00	72000
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	0.90	500.00	45000
-	-	-	-	-	-	-
-	-	-	-	2.00	1250.00	112500
-	-	-	-	-	-	-
-	-	-	-	2.00	1500.00	135000
-	-	-	-	-	-	-
-	-	-	-	1.20	600.00	63000
-	-	-	-	3.00	1800.00	190800
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	0.60	320.00	32000
-	-	-	-	-	-	-
-	-	-	-	1.00	400.00	42400
-	-	-	-	1.20	300.00	22500
-	-	-	-	1.00	250.00	26500
-	-	-	-	1.00	750.00	67500
-	-	-	-	2.40	800.00	69600
-	-	-	-	4.80	3000.00	267000
-	-	-	-	4.80	2400.00	192000
-	-	-	-	8.80	4400.00	391600

Green Fodder		Stalks of Paddy, Jowar, Bajra, Maize and Sugarcane		Other Crops	
Area (Hects)	Value (Rs.)		Value (Rs.)	Area (Hects)	Value (Rs.)
28	29		30	31	32
0.20	1500		5000	0.20	1500
-	-		2000	-	-
0.40	7000			1.00	25700
0.30	5000		3200	-	-
0.40	20000			0.80	30000
2.48	62000		3000	-	-
1.84	5600		710	-	-
0.40	9000		4000	-	-
-	-			-	-
0.40	4200			-	-
0.20	5000		2000	-	-
0.20	4000			-	-
0.10	2400			-	-
0.70	11400			-	-
0.40	8000		5000	0.58	6360
1.30	20000			1.30	53500
-	-		4800	-	-
0.40	4000		12000	-	-
0.40	8000			-	-
0.20	4000			-	-
0.60	12000			-	-
0.40	4000		15000	-	-
0.70	9800		2400	-	-
0.40	8500			-	-
0.40	8000			-	-
0.20	2500			-	-
0.20	4000		5000	-	-
0.20	4000		7000	0.80	10000
0.20	4000		750	0.20	8000
0.90	22500			-	-
0.40	15000		4000	-	-
0.40	8000			-	-
0.40	8000		8000	-	-
0.40	12500			-	-
1.20	24000		30000	-	-
1.20	20000		38000	-	-

Zone	District	Holdings	Paddy			Bajra		
			Area (Hects)	Yield (Qtls)	Value (Rs.)	Area (Hects)	Yield (Qtls)	Value (Rs.)
1	2	3	4	5	6	7	8	9
Central	Jind	Dalamwala	-	-	-	0.40	6.00	2400
		Naguran	1.20	30.00	36000	-	-	-
		Palwan	-	-	-	0.80	3.00	1650
		Budha Khera	1.60	62.00	57636	-	-	-
		Shila Kheri	2.70	21.00	27000	0.40	13.00	7150
		Narwana	-	-	-	-	-	-
		Barah Kalan	-	-	-	-	-	-
		Desh Khera	1.60	70.00	90000	0.60	4.00	2400
		Budha Khera	2.20	68.00	81860	0.60	11.00	6600
		Narwana	-	-	-	-	-	-
		Uchana Khurd	-	-	-	0.60	-	-
	Kaithal	Chhot	0.60	36.00	20880	-	-	-
		Rajaund	0.60	25.00	14500	0.40	4.00	2200
		Mohna	1.80	110.00	66000	-	-	-
		Kharak Pandwan	1.20	50.00	29000	-	-	-
		Harigarh Kingan	2.00	100.00	65000	-	-	-
		Barot	2.80	140.00	81200	-	-	-
		Barot	8.40	344.00	294870	-	-	-
	Rohtak	Bhalot	-	-	-	-	-	-
		Bhalot	-	-	-	-	-	-
		Kheri Sampla	-	-	-	-	-	-
		Kheri Sampla	-	-	-	-	-	-
		Lakhan Majra	-	-	-	0.20	2.00	1000
		Madina	-	-	-	-	-	-
		Bhali Anandpur	-	-	-	-	-	-
	Jhajjar	Lakhan Majra	-	-	-	0.40	4.00	2000
		Dhandhlan	0.40	10.00	16600	-	-	-
		Dhandhlan	0.40	10.00	17000	-	-	-
		Matanhel	0.60	15.00	27000	-	-	-
		Salhawas	-	-	-	0.80	8.00	4800
		Salhawas	-	-	-	-	-	-
		Hasanpur	-	-	-	-	-	-
	Sonipat	Hasanpur	-	-	-	-	-	-
		Dullhera	-	-	-	-	-	-
		Ridhau	-	-	-	-	-	-
		Kheri Dhamkan	0.50	10.00	18000	-	-	-
		Mudiana	-	-	-	0.40	-	-
		Rohat	1.60	70.00	70000	-	-	-
		Bhigan	1.60	56.00	67900	-	-	-
		Rai	1.60	42.00	48300	-	-	-
		Mohana	1.00	40.00	52000	-	-	-
		Chitana	0.40	-	18000	-	-	-
		Gudha	1.60	50.00	70000	-	-	-

Maize			Pulses			Pulses(Bhusa)		Cotton (Desi)		
Area (Hects)	Yield (Qtls)	Value (Rs.)	Area (Hects)	Yield (Qtls)	Value (Rs.)	Yield (Qtls)	Value (Rs.)	Area (Hects)	Yield (Qtls)	Value (Rs.)
10	11	12	13	14	15	16	17	18	19	20
0001	0001	0000	0.20	0000	001500	0001	0000	0.20	0000	0000
0002	0002	0000	0.20	0000	001500	0002	0000	0.40	0000	0000
0003	0003	0000	0.20	0000	001500	0003	0000	2.40	20.00	36000
0004	0004	0000	0.20	0000	001500	0004	0000	0.20	0000	0000
0005	0005	0000	0.20	0000	001500	0005	0000	0.40	0000	0000
0006	0006	0000	0.20	0000	001500	0006	0000	2.40	20.00	36000
0007	0007	0000	0.20	0000	001500	0007	0000	0.20	0000	0000
0008	0008	0000	0.20	0000	001500	0008	0000	0.40	0000	0000
0009	0009	0000	0.20	0000	001500	0009	0000	2.40	20.00	36000
0010	0010	0000	0.20	0000	001500	0010	0000	0.20	0000	0000
0011	0011	0000	0.20	0000	001500	0011	0000	0.40	0000	0000
0012	0012	0000	0.20	0000	001500	0012	0000	2.40	20.00	36000
0013	0013	0000	0.20	0000	001500	0013	0000	0.20	0000	0000
0014	0014	0000	0.20	0000	001500	0014	0000	0.40	0000	0000
0015	0015	0000	0.20	0000	001500	0015	0000	2.40	20.00	36000
0016	0016	0000	0.20	0000	001500	0016	0000	0.20	0000	0000
0017	0017	0000	0.20	0000	001500	0017	0000	0.40	0000	0000
0018	0018	0000	0.20	0000	001500	0018	0000	2.40	20.00	36000
0019	0019	0000	0.20	0000	001500	0019	0000	0.20	0000	0000
0020	0020	0000	0.20	0000	001500	0020	0000	0.40	0000	0000
0021	0021	0000	0.20	0000	001500	0021	0000	2.40	20.00	36000
0022	0022	0000	0.20	0000	001500	0022	0000	0.20	0000	0000
0023	0023	0000	0.20	0000	001500	0023	0000	0.40	0000	0000
0024	0024	0000	0.20	0000	001500	0024	0000	2.40	20.00	36000
0025	0025	0000	0.20	0000	001500	0025	0000	0.20	0000	0000
0026	0026	0000	0.20	0000	001500	0026	0000	0.40	0000	0000
0027	0027	0000	0.20	0000	001500	0027	0000	2.40	20.00	36000
0028	0028	0000	0.20	0000	001500	0028	0000	0.20	0000	0000
0029	0029	0000	0.20	0000	001500	0029	0000	0.40	0000	0000
0030	0030	0000	0.20	0000	001500	0030	0000	2.40	20.00	36000
0031	0031	0000	0.20	0000	001500	0031	0000	0.20	0000	0000
0032	0032	0000	0.20	0000	001500	0032	0000	0.40	0000	0000
0033	0033	0000	0.20	0000	001500	0033	0000	2.40	20.00	36000
0034	0034	0000	0.20	0000	001500	0034	0000	0.20	0000	0000
0035	0035	0000	0.20	0000	001500	0035	0000	0.40	0000	0000
0036	0036	0000	0.20	0000	001500	0036	0000	2.40	20.00	36000
0037	0037	0000	0.20	0000	001500	0037	0000	0.20	0000	0000
0038	0038	0000	0.20	0000	001500	0038	0000	0.40	0000	0000
0039	0039	0000	0.20	0000	001500	0039	0000	2.40	20.00	36000
0040	0040	0000	0.20	0000	001500	0040	0000	0.20	0000	0000
0041	0041	0000	0.20	0000	001500	0041	0000	0.40	0000	0000
0042	0042	0000	0.20	0000	001500	0042	0000	2.40	20.00	36000
0043	0043	0000	0.20	0000	001500	0043	0000	0.20	0000	0000
0044	0044	0000	0.20	0000	001500	0044	0000	0.40	0000	0000
0045	0045	0000	0.20	0000	001500	0045	0000	2.40	20.00	36000
0046	0046	0000	0.20	0000	001500	0046	0000	0.20	0000	0000
0047	0047	0000	0.20	0000	001500	0047	0000	0.40	0000	0000
0048	0048	0000	0.20	0000	001500	0048	0000	2.40	20.00	36000
0049	0049	0000	0.20	0000	001500	0049	0000	0.20	0000	0000
0050	0050	0000	0.20	0000	001500	0050	0000	0.40	0000	0000
0051	0051	0000	0.20	0000	001500	0051	0000	2.40	20.00	36000
0052	0052	0000	0.20	0000	001500	0052	0000	0.20	0000	0000
0053	0053	0000	0.20	0000	001500	0053	0000	0.40	0000	0000
0054	0054	0000	0.20	0000	001500	0054	0000	2.40	20.00	36000
0055	0055	0000	0.20	0000	001500	0055	0000	0.20	0000	0000
0056	0056	0000	0.20	0000	001500	0056	0000	0.40	0000	0000
0057	0057	0000	0.20	0000	001500	0057	0000	2.40	20.00	36000
0058	0058	0000	0.20	0000	001500	0058	0000	0.20	0000	0000
0059	0059	0000	0.20	0000	001500	0059	0000	0.40	0000	0000
0060	0060	0000	0.20	0000	001500	0060	0000	2.40	20.00	36000
0061	0061	0000	0.20	0000	001500	0061	0000	0.20	0000	0000
0062	0062	0000	0.20	0000	001500	0062	0000	0.40	0000	0000
0063	0063	0000	0.20	0000	001500	0063	0000	2.40	20.00	36000
0064	0064	0000	0.20	0000	001500	0064	0000	0.20	0000	0000
0065	0065	0000	0.20	0000	001500	0065	0000	0.40	0000	0000
0066	0066	0000	0.20	0000	001500	0066	0000	2.40	20.00	36000
0067	0067	0000	0.20	0000	001500	0067	0000	0.20	0000	0000
0068	0068	0000	0.20	0000	001500	0068	0000	0.40	0000	0000
0069	0069	0000	0.20	0000	001500	0069	0000	2.40	20.00	36000
0070	0070	0000	0.20	0000	001500	0070	0000	0.20	0000	0000
0071	0071	0000	0.20	0000	001500	0071	0000	0.40	0000	0000
0072	0072	0000	0.20	0000	001500	0072	0000	2.40	20.00	36000
0073	0073	0000	0.20	0000	001500	0073	0000	0.20	0000	0000
0074	0074	0000	0.20	0000	001500	0074	0000	0.40	0000	0000
0075	0075	0000	0.20	0000	001500	0075	0000	2.40	20.00	36000
0076	0076	0000	0.20	0000	001500	0076	0000	0.20	0000	0000
0077	0077	0000	0.20	0000	001500	0077	0000	0.40	0000	0000
0078	0078	0000	0.20	0000	001500	0078	0000	2.40	20.00	36000
0079	0079	0000	0.20	0000	001500	0079	0000	0.20	0000	0000
0080	0080	0000	0.20	0000	001500	0080	0000	0.40	0000	0000
0081	0081	0000	0.20	0000	001500	0081	0000	2.40	20.00	36000
0082	0082	0000	0.20	0000	001500	0082	0000	0.20	0000	0000
0083	0083	0000	0.20	0000	001500	0083	0000	0.40	0000	0000
0084	0084	0000	0.20	0000	001500	0084	0000	2.40	20.00	36000
0085	0085	0000	0.20	0000	001500	0085	0000	0.20	0000	0000
0086	0086	0000	0.20	0000	001500	0086	0000	0.40	0000	0000
0087	0087	0000	0.20	0000	001500	0087	0000	2.40	20.00	36000
0088	0088	0000	0.20	0000	001500	0088	0000	0.20	0000	0000
0089	0089	0000	0.20	0000	001500	0089	0000	0.40	0000	0000
0090	0090	0000	0.20	0000	001500	0090	0000	2.40	20.00	36000
0091	0091	0000	0.20	0000	001500	0091	0000	0.20	0000	0000
0092	0092	0000	0.20	0000	001500	0092	0000	0.40	0000	0000
0093	0093	0000	0.20	0000	001500	0093	0000	2.40	20.00	36000
0094	0094	0000	0.20	0000	001500	0094	0000	0.20	0000	0000
0095	0095	0000	0.20	0000	001500	0095	0000	0.40	0000	0000
0096	0096	0000	0.20	0000	001500	0096	0000	2.40	20.00	36000
0097	0097	0000	0.20	0000	001500	0097	0000	0.20	0000	0000
0098	0098	0000	0.20	0000	001500	0098	0000	0.40	0000	0000
0099	0099	0000	0.20	0000	001500	0099	0000	2.40	20.00	36000
0100	0100	0000	0.20	0000	001500	0100	0000	0.20	0000	0000

Cotton (American)			Cotton Sticks	Sugarcane (Cane & Seed)		
Area (Hects)	Yield (Qtls)	Value (Rs.)	Value (Rs.)	Area (Hects)	Yield (Qtls)	Value (Rs.)
21	22	23	24	25	26	27
0.50	4.00	8400	840	-	-	-
1.20	4.00	8000	800	-	-	-
0.80	2.00	4000	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	1.60	240.000	12000
-	-	-	-	3.00	1500.00	165000
-	-	-	-	-	-	-
-	-	-	-	-	-	-
0.80	4.00	8200	-	1.20	200.00	10000
0.40	1.00	2000	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	0.20	150.00	16500
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	0.40	200.00	22000
-	-	-	-	-	-	-
0.40	4.00	8400	1400	0.20	50.00	5500
0.50	4.00	8400	800	-	-	-
-	-	-	-	2.20	1100.00	121000
-	-	-	-	-	-	4550
-	-	-	-	0.20	70.00	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	0.30	30.00	8000
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	0.60	375.00	37500
-	-	-	-	-	-	-

Green Fodder		Stalks, Rice, Jowar, Bajra, Maize and Sugarcane	Other Crops	
Area (Hects)	Value (Rs.)	Value (Rs.)	Area (Hects)	Value (Rs.)
28	29	30	31	32
0.20	3000	1500	-	-
0.20	3000	-	-	-
0.20	4000	-	-	-
0.20	3000	-	-	-
0.80	8000	1500	0.20	1000
0.40	6000	-	-	-
0.50	12000	8000	-	-
0.20	6000	2600	-	-
0.90	12000	1250	-	-
0.40	6000	-	-	-
0.30	3000	-	-	-
0.20	3000	750	-	-
0.40	3000	2320	-	-
0.20	3000	-	-	-
0.20	3000	-	-	-
0.40	6000	300	-	-
0.40	6000	-	-	-
0.40	6000	13000	-	-
0.80	12500	-	-	-
0.60	15000	4000	-	-
0.20	7000	500	-	-
0.60	18200	-	-	-
1.20	14000	5400	0.40	-
0.80	15000	-	-	-
0.60	10500	17500	-	-
1.20	18000	800	-	-
0.72	7500	10750	-	-
0.12	1250	500	-	-
-	-	500	-	-
-	-	3500	1.20	10000
-	-	4200	0.80	8000
0.40	4500	1500	0.40	3600
0.60	6000	4000	1.40	20000
-	-	6000	1.20	1600
0.40	6000	-	-	-
0.40	7500	600	-	-
0.80	10000	-	-	-
0.60	6000	2000	-	-
0.60	7500	1740	-	-
0.40	6000	-	0.40	20000
-	-	2000	1.60	90000
2.28	31200	2000	0.40	-
1.20	15000	3000	-	-

Zone	District	Holdings	Paddy			Bajra		
			Area (Hects)	Yield (Qtls)	Value (Rs.)	Area (Hects)	Yield (Qtls)	Value (Rs.)
1	2	3	4	5	6	7	8	9
Western	Bhiwani	Hetam pura	-	-	-	-	-	-
		Gignow	-	-	-	0.80	1.00	700
		Chandeni	-	-	-	1.60	-	-
		Gignow	-	-	-	0.80	6.00	4200
		Jattu Lohari	-	-	-	1.60	-	-
		Jattu Lohari	-	-	-	1.60	-	-
		Chang	-	-	-	-	-	-
		Hetam pura	-	-	-	-	-	-
		Loharwara	-	-	-	-	-	-
		Loharwara	-	-	-	2.40	-	-
		Chang	-	-	-	-	-	-
		Chandeni	-	-	-	3.20	-	-
		Bhariwas	-	-	-	-	-	-
		Sagwan	-	-	-	-	-	-
		Sagwan	-	-	-	-	-	-
		Dhani Hunat	-	-	-	4.00	-	-
	Hisar	Litani	-	-	-	0.20	3.00	1950
		Majra	1.60	28.00	16968	-	-	-
		Data	-	-	-	1.20	20.00	11000
		Arya Nagar	-	-	-	0.80	-	-
		Behabalpur	-	-	-	0.80	4.00	2400
		Bhatol Jattan	-	-	-	0.40	-	-
		Pabra	-	-	-	0.80	8.00	4000
		Sarsod	-	-	-	0.80	-	-
		Dhiranwas	-	-	-	0.80	3.00	1500
		Harikot	-	-	-	0.60	12.00	6000
		Narnaund	5.60	150.00	93750	-	-	-
		Agroha	-	-	-	1.20	28.00	16800
		Balawas	-	-	-	4.00	25.00	12500
		Kavrle	-	-	-	1.20	26.00	15600
		Moda Khera	-	-	-	0.80	16.00	8800
	Fatehabad	Kanheri	0.40	20.00	11600	-	-	-
		Nahla	-	-	-	0.80	12.00	7200
		Matana	-	-	-	1.00	15.00	9000
		Aharwan	4.40	176.00	158400	-	-	-
	Sirsa	Bhattu Kalan	-	-	-	-	-	-
		Abholi	-	-	-	-	-	-
		Bhawdin	-	-	-	-	-	-
		Mulekan	-	-	-	-	-	-
		Panihari	-	-	-	-	-	-
		Nejia Khera	-	-	-	-	-	-
		Banwala	-	-	-	-	-	-
		Odhan	-	-	-	-	-	-
		Sahuwala	-	-	-	-	-	-

[illegible]

Cotton (American)			Cotton Sticks	Sugarcane (Cane & Seed)		
Area (Hects)	Yield (Qtls)	Value (Rs.)	Value (Rs.)	Area (Hects)	Yield (Qtls)	Value (Rs.)
21	22	23	24	25	26	27
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	3000	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
0.60	13.00	27950	750	-	-	-
-	-	-	-	-	-	-
-	-	-	500	-	-	-
1.20	4.00	2200	500	-	-	-
0.20	1.00	900	500	-	-	-
1.20	6.00	12000	500	-	-	-
1.40	10.00	20500	2250	-	-	-
0.80	5.00	10350	500	-	-	-
-	-	-	1750	-	-	-
1.60	14.00	28000	600	-	-	-
-	-	-	-	-	-	-
3.20	50.00	10000	4700	0.40	250	20000
-	-	-	-	-	-	-
3.60	72.00	147600	6500	-	-	-
0.80	12.00	24000	7375	-	-	-
-	-	-	-	-	-	-
2.00	40.00	84000	-	-	-	-
2.80	40.00	86000	-	-	-	-
-	-	-	-	-	-	-
4.00	25.00	53750	-	-	-	-
0.65	3.00	6000	-	-	-	-
1.60	25.00	52500	-	-	-	-
0.80	8.00	16400	-	-	-	-
2.40	30.00	60000	-	-	-	-
1.60	26.00	49400	4800	-	-	-
2.00	10.00	19000	-	-	-	-
2.40	25.00	53125	-	-	-	-
3.60	36.00	68400	-	-	-	-

Green Fodder		Stalks of Rice, Jowar, Bajra, Maize & Sugarcane		Other Crops	
Area (Hects)	Value (Rs.)	Value (Rs.)	Area (Hects)	Value (Rs.)	
28	29	30	31	32	
-	-	-	-	-	-
-	-	960	0.80	3000	-
-	-	-	-	-	-
-	-	700	0.80	750	-
0.40	4200	-	-	-	-
0.40	4200	-	-	-	-
0.40	4200	-	-	-	-
-	-	-	-	-	-
-	-	1000	0.80	4800	-
-	-	1000	0.80	4800	-
0.80	8400	-	-	-	-
-	-	-	-	-	-
-	-	1600	1.20	12000	-
0.80	8400	-	-	-	-
0.80	8400	-	-	-	-
-	-	-	3.20	-	-
0.30	3000	750	-	-	-
0.10	2400	800	-	-	-
0.40	6000	2400	-	-	-
0.20	2500	-	-	-	-
0.20	2000	150	-	-	-
0.20	5000	-	-	-	-
0.40	4000	400	-	-	-
0.40	4000	-	-	-	-
0.20	1800	800	-	-	-
0.40	5000	500	-	-	-
0.80	18000	10000	-	-	-
0.40	5000	2400	1.20	19200	-
-	-	3500	5.00	36000	-
0.40	2250	2800	0.80	28800	-
0.20	2400	4000	-	-	-
0.20	4500	1200	-	-	-
0.60	3000	-	-	-	-
0.20	3000	2000	-	-	-
0.60	8000	-	0.20	7800	-
0.20	2000	-	1.40	4500	-
0.25	3500	-	0.15	400	-
0.40	8500	-	-	-	-
0.30	7000	-	0.40	4455	-
0.40	10000	-	0.40	20000	-
0.20	4000	-	-	-	-
0.20	3000	-	-	-	-
0.40	-	1200	1.20	19200	-
0.80	6000	-	1.60	27200	-

Zone	District	Holdings	Paddy			Bajra		
			Area (Hects)	Yield (Qtls)	Value (Rs.)	Area (Hects)	Yield (Qtls)	Value (Rs.)
1	2	3	4	5	6	7	8	9
Southern	Faridabad	Likhi	-	-	-	-	-	-
		Pirhala	-	-	-	-	-	-
		Pirhala	-	-	-	-	-	-
		Bhupgarh	-	-	-	-	-	-
		Nacholi	2.00	80.00	84000	-	-	-
		Nacholi	2.00	90.00	94500	-	-	-
		Likhi	-	-	-	-	-	-
		Mandkola	3.20	80.00	1000	-	-	-
		Sikari	-	-	-	-	-	-
		Sikari	-	-	-	-	-	-
	Gurgaon	Bonda Kalan	-	-	-	-	-	-
		Jamalpur	-	-	-	1.04	8.00	4400
		Nasirwas	-	-	-	-	-	-
		Padheni	-	-	-	1.00	12.00	7200
		Bhondsi	-	-	-	-	-	-
		Khentawas	-	-	-	0.40	9.00	4950
		Wazirpur	-	-	-	-	-	-
		Bichhor	-	-	-	-	-	-
		Uninda	-	-	-	0.40	1.00	550
		Sehlang	-	-	-	0.60	11.00	6600
	Mahendergarh	Kanina	-	-	-	0.60	-	-
		Riwasa	-	-	-	-	-	-
		Shaharpur	-	-	-	0.50	6.00	3900
		Nangal Nunia	-	-	-	1.60	4.00	2200
		Satnali	-	-	-	2.80	-	-
		Suthana	-	-	-	0.60	2.00	1200
		Manethi	-	-	-	0.80	2.00	1200
		Palhawas	-	-	-	0.60	4.00	2400
		Palhawas	-	-	-	0.80	2.00	800
		Manethi	-	-	-	1.20	3.00	1800
	Rewari	Maheshwari	-	-	-	-	-	-
		Nahar	-	-	-	0.40	-	-
		Suthana	-	-	-	1.80	-	-

Green Fodder		Stalks, Rice, Jowar, Bajra, Maize and Sugarcane		Other Crops	
Area (Hects)	Value (Rs.)	Value (Rs.)	Area (Hects)	Value (Rs.)	
28	29	30	31	32	
0.80	4000	-	0.40	-	
1.40	4000	-	1.00	-	
0.60	1000	-	-	-	
2.20	11000	2000	-	-	
1.60	8000	-	-	-	
0.40	4000	-	-	-	
2.00	10000	-	0.16	18000	
0.80	7000	-	-	-	
1.20	5000	1000	-	-	
-	-	700	-	-	
-	-	-	1.20	-	
-	-	-	-	-	
-	-	14000	4.80	55000	
-	-	3000	-	-	
0.60	4500	-	-	-	
0.40	3000	1800	1.60	22280	
4.00	64000	-	2.80	5000	
-	-	-	8.00	-	
-	-	2600	-	-	
-	-	1500	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	1040	-	-	
-	-	2500	-	-	
-	-	-	0.80	-	
-	-	800	-	-	
-	-	2000	-	-	
-	-	1000	0.60	1000	
-	-	300	-	-	
-	-	2500	-	-	
0.40	2000	-	-	-	
-	-	600	0.40	-	
1.80	-	-	-	-	

APPENDIX - II-B

Cropped area, Yield and its Value of crops sown on Unirrigated land (Kharif) 2002-03

Zone	District	Holdings	Paddy			Bajra		
			Area (Hects)	Yield (Qtls)	Value (Rs.)	Area (Hects)	Yield (Qtls)	Value (Rs.)
1	2	3	4	5	6	7	8	9
Northern	Ambala	Patvi	-	-	-	-	-	-
	Panchkuia	Morni	-	-	-	-	-	-
	Kurukshetra	Thaska Miranji	-	-	-	-	-	-
Central	Rohtak	Bhali Anandpur	-	-	-	-	-	-
		Madina	-	-	-	-	-	-
	Sonipat	Kheri Dhamkan	-	-	-	-	-	-
		Mudhlana	-	-	-	-	-	-
		Mohana	-	-	-	0.40	4.00	2400
		Gudha	-	-	-	-	-	-
Western	Bhiwani	Hetampura	-	-	-	1.60	-	-
		Hetampura	-	-	-	1.60	-	-
		Dhani Hunat	-	-	-	-	-	-
Southern	Hisar	Agroha	-	-	-	0.40	6.00	3600
	Gurgaon	Malab	-	-	-	0.80	4.00	1800
		Kheri Nuh	-	-	-	-	-	-
	Mahendergarh	Napla	-	-	-	1.20	-	-
		Godh	-	-	-	0.40	-	-
		Satnali	-	-	-	3.20	-	-
		Nangal Nunia	-	-	-	-	-	-

Green Fodder		Stalks of Rice, Jowar, Bajra, Maize & Sugarcane		Other Crops	
Area (Hects)	Value (Rs.)	Value (Rs.)	Area (Hects)	Value (Rs.)	
28	29	30	31	32	
0.40	5000	-	1.00	22500	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
0.40	2000	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	15000	1.00	1500	
-	-	10000	2.00	10000	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	

APPENDIX - III-A

Cropped area, Yield and its Value of crops sown on Irrigated Land (Rabi) 2002-03

Zone	District	Holdings	Wheat			Wheat (Bhusa)	
			Area (Hects)	Yield (Qtls)	Value (Rs.)	Yield (Qtls)	Value (Rs.)
1	2	3	4	5	6	7	8
Northern	Ambala	Alipur	1.40	80.00	50400	80.00	8000
		Sullar	2.40	105.00	66150	100.00	10000
		Mohra	3.40	100.00	63000	105.00	13650
		Barara	3.00	155.00	97650	150.00	15000
		Patvi	0.80	40.00	25200	40.00	5000
	Panchkula	Surajpur	2.72	80.00	52000	70.00	14000
		Kiratpur	2.64	77.00	50050	77.00	10780
		Barwala	1.60	64.00	40320	64.00	8000
	Karnal	Bada Gaon	1.20	60.00	37800	-	-
		Bajidpur	1.41	70.00	44100	70.00	5400
		Dadupur Roran	1.50	68.00	42840	68.00	10880
		Garhi Gujran	0.70	30.00	18900	30.00	3600
		Bijna	1.40	70.00	44100	70.00	7700
		Araipura	3.50	140.00	83250	135.00	18000
		Fusgarh	2.52	120.00	75600	120.00	13200
		Padhana	6.50	312.00	196560	312.00	31200
		Khanpur Kolian	3.10	85.00	53550	85.00	12750
	Kurukshetra	Jandhera	1.20	55.00	34650	55.00	5500
		Kamoda	4.20	150.00	94500	150.00	12000
		Sandholi	1.80	63.00	39690	63.00	9450
		Dadlu	3.00	100.00	63000	75.00	7500
		Phalsanda Rangran	2.60	125.00	78750	125.00	12500
		Thaska Miranji	5.00	194.00	122220	194.00	19400
		Diwana	1.40	60.00	37800	60.00	8400
		Didwari	2.00	90.00	55700	90.00	12000
		Hathwala	1.70	74.00	46620	74.00	7400
	Panipat	Nara Khurad	2.80	124.00	78120	124.00	16740
		Kurar	3.80	180.00	113400	180.00	23400
	Yamuna Nagar	Sabepur	0.70	30.00	18900	27.00	2700
		Bheel Chhapper	1.85	54.00	33480	50.00	5000
		Jubbal	2.40	70.00	43400	70.00	7000
		Sarawan	1.60	52.00	32760	52.00	5200
		Radauri	2.40	75.00	47250	75.00	7500
		Goniana	2.00	90.00	55700	90.00	9000
		Dariyapur	4.00	130.00	78000	130.00	19500
		Balachaur	10.00	325.00	204750	325.00	48750

Pulses			Pulses (Bhusa)		Oilseeds			Green Fodder		Other crops	
Area (Hects)	Yield (Qtls)	Value (Rs.)	Yield (Qtls)	Value (Rs.)	Area (Hects)	Yield (Qtls)	Value (Rs.)	Area (Hects)	Value (Qtls)	Area (Hects)	Value (Rs.)
19	20	21	22	23	24	25	26	27	28	29	30
-	-	-	-	-	-	-	-	0.20	4200	-	-
-	-	-	-	-	-	-	-	0.40	4500	-	-
-	-	-	-	-	-	-	-	-	-	1.80	10000
-	-	-	-	-	-	-	-	0.30	5000	-	-
-	-	-	-	-	-	-	-	0.40	8000	1.00	22500
-	-	-	-	-	-	-	-	0.40	17500	-	-
0.32	2.00	3000	-	-	-	-	-	0.24	6000	-	-
-	-	-	-	-	-	-	-	0.60	12000	1.00	12800
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	0.10	4000	-	-
-	-	-	-	-	-	-	-	0.20	4000	-	-
-	-	-	-	-	-	-	-	0.20	5000	0.50	18000
-	-	-	-	-	-	-	-	0.10	4000	-	-
-	-	-	-	-	-	-	-	0.40	14000	-	-
-	-	-	-	-	-	-	-	0.15	4500	0.68	16000
-	-	-	-	-	-	-	-	2.10	50000	-	-
-	-	-	-	-	-	-	-	0.80	15000	-	-
-	-	-	-	-	-	-	-	0.40	12000	0.80	8400
-	-	-	-	-	-	-	-	0.40	13000	-	-
-	-	-	-	-	-	-	-	0.20	6500	-	-
-	-	-	-	-	-	-	-	0.60	19000	-	-
-	-	-	-	-	-	-	-	0.20	5000	0.80	22140
-	-	-	-	-	-	-	-	0.30	9000	-	-
-	-	-	-	-	-	-	-	0.40	12000	-	-
-	-	-	-	-	-	-	-	0.40	10000	-	-
-	-	-	-	-	0.50	1.00	1600	0.05	625	-	-
-	-	-	-	-	-	-	-	0.20	4000	-	-
-	-	-	-	-	-	-	-	0.20	6000	-	-
-	-	-	-	-	-	-	-	0.20	5000	0.20	9000
-	-	-	-	-	-	-	-	0.15	4000	-	-
-	-	-	-	-	-	-	-	0.20	4000	-	-
-	-	-	-	-	-	-	-	0.40	8000	0.40	12000
0.20	1.00	1750	-	-	-	-	-	0.20	4000	-	-
-	-	-	-	-	-	-	-	0.40	12000	-	-
-	-	-	-	-	-	-	-	2.00	30000	-	-
-	-	-	-	-	-	-	-	1.20	27000	-	-

Zone	District	Holdings	Wheat				Wheat (Bhusa)
			Area (Hects)	Yield (Qtls)	Value (Rs.)	Yield (Qtls)	Value (Rs.)
1	2	3	4	5	6	7	8
Central	Jind	Dalamwala	1.00	36.00	22680	36.00	5400
		Naguran	2.40	100.00	63000	125.00	12500
		Palwan	1.40	42.00	26460	42.00	6300
		Budha Khera	1.60	61.00	38335	61.00	6100
		Shila Kheri	3.50	120.00	86200	120.00	12000
		Chopra Patti (Narwana)	1.00	32.00	20160	32.00	4800
		Barah Kalan	2.10	120.00	75600	120.00	18000
		Desh Khera	4.00	180.00	113400	90.00	13500
		Budha Khera	3.20	110.00	69300	125.00	12500
		Chopra Patti (Narwana)	1.40	36.00	21680	36.00	2160
		Uchana Khurd	0.80	36.00	22680	36.00	5400
	Kaithal	Chhot	0.60	28.00	17640	25.00	5000
		Rajaund	1.60	75.00	47250	70.00	14000
		Mohna	1.80	90.00	55800	90.00	13500
		Kharak Pandwan	2.60	120.00	75600	100.00	18000
		Harigarh Kingan	2.40	115.00	71300	80.00	14400
		Barot	2.80	150.00	94500	150.00	22500
		Barot	8.40	400.00	252000	300.00	45000
	Rohtak	Bhalot	0.80	30.00	18900	30.00	3750
		Bhalot	0.60	25.00	15750	25.00	3125
		Kheri Sampla	0.60	20.00	12600	20.00	2500
		Kheri Sampla	1.00	30.00	18900	30.00	3750
		Lakhan Majra	1.70	60.00	37800	60.00	7500
		Madina Gindran	1.30	50.00	31500	50.00	7500
		Bhali Anandpur	1.60	50.00	31500	50.00	6250
		Lakhan Majra	1.20	40.00	25200	40.00	5000
	Jhajjar	Dhandhlan	1.00	40.00	25200	50.00	7500
		Dhandhlan	1.32	40.00	25200	50.00	7500
		Matanhel	1.20	40.00	25200	40.00	8000
		Salhawwas	1.20	40.00	25200	40.00	8000
		Salhawwas	1.20	40.00	25200	40.00	8000
		Hasanpur	2.00	80.00	50400	80.00	12000
		Hasanpur	2.80	100.00	63000	100.00	15000
		Dulhera	3.20	120.00	75600	120.00	12000
	Sonipat	Ridhau	0.40	16.00	10080	16.00	1600
		Kheri Dhamkan	0.90	37.00	23310	37.00	3700
		Mudlana	1.40	62.00	39060	62.00	6200
		Rohat	1.60	64.00	39680	65.00	6500
		Bhigan	1.40	56.00	35280	56.00	5600
		Rai	2.20	88.00	55440	88.00	8800
		Mohana	2.60	120.00	75600	120.00	12000
		Chitana	3.48	139.00	87570	140.00	14000
		Gudha	3.80	150.00	94500	150.00	15000

Pulses			Pulses (Bhusa)		Oilseeds			Green Fodder		Other crops	
Area (Hects)	Yield (Qtls)	Value (Rs.)	Yield (Qtls)	Value (Rs.)	Area (Hects)	Yield (Qtls)	Value (Rs.)	Area (Hect)	Value (Qtls)	Area (Hect)	Value (Rs.)
19	20	21	22	23	24	25	26	27	28	29	30
-	-	-	-	-	-	-	-	0.10	2000	-	-
-	-	-	-	-	-	-	-	0.20	5000	-	-
0.20	-	1500	-	-	0.40	3.00	3600	0.20	4000	-	-
-	-	-	-	-	-	-	-	0.20	8000	-	-
-	-	-	-	-	0.40	4.00	6600	-	-	-	-
-	-	-	-	-	1.00	6.00	10800	0.20	4500	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	0.60	-	-	0.20	4000	-	-
-	-	-	-	-	-	-	-	0.50	8000	-	-
-	-	-	-	-	1.60	14.00	19600	0.20	4000	-	-
-	-	-	-	-	0.40	2.00	3200	0.10	3000	-	-
-	-	-	-	-	-	-	-	0.20	3000	-	-
-	-	-	-	-	-	-	-	0.20	3000	-	-
-	-	-	-	-	-	-	-	0.20	3000	-	-
-	-	-	-	-	-	-	-	0.20	3000	-	-
-	-	-	-	-	-	-	-	0.40	6000	-	-
-	-	-	-	-	-	-	-	0.40	6000	-	-
-	-	-	-	-	-	-	-	0.40	6000	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	0.40	4.00	7200	-	-	-	-
-	-	-	-	-	0.40	5.00	9000	-	-	-	-
-	-	-	-	-	-	-	-	0.10	2000	-	-
-	-	-	-	-	-	-	-	0.10	2000	-	-
-	-	-	-	-	0.40	4.00	6800	-	-	-	-
-	-	-	-	-	-	-	-	0.20	3000	-	-
-	-	-	-	-	-	-	-	0.12	3600	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	0.40	4.00	8000	-	-	-	-
-	-	-	-	-	0.40	6.00	12000	-	-	-	-
-	-	-	-	-	0.80	10.00	20000	-	-	-	-
-	-	-	-	-	0.80	12.00	24000	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	0.40	6.00	9000	-	-	-	-
-	-	-	-	-	-	-	-	0.10	3750	-	-
-	-	-	-	-	-	-	-	-	-	0.60	24500
-	-	-	-	-	-	-	-	0.40	17500	0.40	32000
-	-	-	-	-	-	-	-	0.20	7500	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	0.10	3000	0.40	12000

Zone	District	Holdings	Wheat			Wheat (Bhusa)	
			Area (Hects)	Yield (Qtls)	Value (Rs.)	Yield (Qtls)	Value (Rs.)
1	2	3	4	5	6	7	8
Western	Bhiwani	Hetam Pura	-	-	-	-	-
		Gignow	0.40	13.00	8190	25.00	3125
		Chandeni	0.80	28.00	17640	28.00	2800
		Gignow	0.80	26.00	16380	26.00	3100
		Jattu Lohari	2.00	80.00	50400	80.00	8800
		Jattu Lohari	2.00	80.00	50400	80.00	8800
		Chang	2.00	58.00	36540	58.00	5800
		Hetam Pura	-	-	-	-	-
		Loharwara	1.60	56.00	35280	56.00	7000
		Loharwara	2.00	75.00	47250	75.00	7500
		Chang	3.20	95.00	59850	95.00	9500
		Chandeni	1.60	60.00	37800	60.00	6500
		Bhariwas	1.60	56.00	35280	56.00	7000
		Sagwan	1.60	36.00	22680	36.00	3600
		Sagwan	1.20	33.00	20790	33.00	3300
		Dhani Hunat	1.20	30.00	18900	30.00	3100
	Hisar	Litani	0.90	32.00	20160	35.00	4375
		Majra	1.60	84.00	53254	60.00	7500
		Data	1.20	40.00	25200	45.00	5625
		Arya Nagar	1.20	40.00	25200	40.00	5000
		Behabalpur	1.50	30.00	18900	30.00	3750
		Bhatol Jattan	1.40	40.00	25200	40.00	5000
		Pabra	1.80	60.00	37800	60.00	7500
		Sarsod	0.80	32.00	20160	32.00	4000
		Dhiranwas	1.00	30.00	18900	35.00	5250
		Harikot	2.40	64.00	38400	64.00	8000
		Narnaund	4.40	128.00	80640	130.00	16250
		Agroha	4.00	130.00	81900	150.00	18750
		Balawas	-	-	-	-	-
	Fatehabad	Kavrle	6.40	160.00	100800	180.00	22500
		Moda Khera	8.00	320.00	201600	350.00	43750
		Kanheri	0.80	36.00	22680	36.00	3600
		Nahla	2.80	120.00	75600	120.00	15000
		Matana	5.20	156.00	98280	156.00	19500
	Sirsa	Aharwan	4.40	176.00	110880	176.00	17600
		Bhattu Kalan	2.40	72.00	45360	72.00	9100
		Abholi	0.80	40.00	25200	40.00	4000
		Bhawdin	1.60	60.00	37800	60.00	6000
		Malekan	2.00	110.00	63000	100.00	10000
		Panihari	2.80	112.00	69440	100.00	10000
		Nejia Kera	1.60	78.00	49140	78.00	7800
		Banwala	1.60	65.00	40300	60.00	6000
		Odhan	3.60	108.00	66960	100.00	10000
		Sahuwala	3.50	126.00	78120	126.00	12000

Pulses			Pulses (Bhusa)		Oilseeds			Green Fodder		Other crops	
Area (Hects)	Yield (Qtls)	Value (Rs.)	Yield (Qtls)	Value (Rs.)	Area (Hects)	Yield (Qtls)	Value (Rs.)	Area (Hects)	Value (Qtls)	Area (Hects)	Value (Rs.)
19	20	21	22	23	24	25	26	27	28	29	30
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	1.20	13.00	20800	-	-	-	-
-	-	-	-	-	0.80	10.00	19000	-	-	-	-
-	-	-	-	-	0.40	7.00	13475	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	0.80	12.00	22800	-	-	-	-
-	-	-	-	-	1.20	20.00	38000	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	1.60	20.00	38000	-	-	-	-
-	-	-	-	-	2.40	30.00	57000	-	-	-	-
-	-	-	-	-	3.20	40.00	76000	-	-	-	-
-	-	-	-	-	3.20	40.00	76000	-	-	-	-
-	-	-	-	-	1.20	11.00	20350	-	-	-	-
-	-	-	-	-	-	-	-	0.20	1500	-	-
-	-	-	-	-	-	-	-	0.10	2000	-	-
-	-	-	-	-	-	-	-	0.40	7800	-	-
-	-	-	-	-	1.20	12.00	20400	0.20	1000	-	-
-	-	-	-	-	0.60	8.00	12800	0.25	5000	1.95	85250
-	-	-	-	-	2.00	20.00	34000	0.20	2500	-	-
-	-	-	-	-	0.80	8.00	9280	0.40	10000	-	-
-	-	-	-	-	1.60	18.00	33300	0.40	1300	-	-
-	-	-	-	-	0.60	4.00	6000	0.40	1000	0.60	6000
-	-	-	-	-	0.80	9.00	13230	0.50	500	0.50	16200
-	-	-	-	-	1.20	14.00	25060	0.80	13000	-	-
-	-	-	-	-	1.60	32.00	48000	0.40	1500	0.40	4000
-	-	-	-	-	9.00	36.00	68400	-	-	-	-
-	-	-	-	-	1.60	20.00	29000	0.20	1500	0.10	1000
-	-	-	-	-	3.20	50.00	82500	0.20	1500	-	-
-	-	-	-	-	-	-	-	0.20	4000	-	-
-	-	-	-	-	0.40	5.00	9000	0.60	10000	-	-
-	-	-	-	-	-	-	-	0.20	4500	-	-
-	-	-	-	-	-	-	-	0.60	1200	1.80	20000
-	-	-	-	-	2.20	18.00	34200	0.20	4000	-	-
-	-	-	-	-	-	-	-	0.25	2400	-	-
-	-	-	-	-	-	-	-	0.40	6400	-	-
-	-	-	-	-	-	-	-	0.30	6200	-	-
-	-	-	-	-	-	-	-	0.40	8500	-	-
-	-	-	-	-	-	-	-	0.20	3600	-	-
-	-	-	-	-	3.60	35.00	57500	0.20	1500	-	-
-	-	-	-	-	3.20	40.00	68000	0.40	4500	-	-
-	-	-	-	-	1.60	11.00	18700	0.80	6000	-	-

Zone	District	Holdings	Wheat			Wheat (Bhusa)	
			Area (Hects)	Yield (Qtls)	Value (Rs.)	Yield (Qtls)	Value (Rs.)
1	2	3	4	5	6	7	8
Southern	Faridabad	Likhi	1.20	48.00	30240	48.00	6000
		Parthala	1.40	60.00	37800	60.00	6000
		Parthala	1.00	40.00	25200	40.00	4000
		Bhupgarh	2.20	80.00	49600	80.00	8000
		Nacholi	3.60	100.00	63000	100.00	12500
		Nacholi	3.40	108.00	68040	108.00	13500
		Likhi	2.76	112.00	70560	112.00	14000
		Mandkola	4.80	140.00	88200	100.00	11000
		Sikari	3.20	150.00	94500	150.00	15000
		Sikari	5.60	250.00	157500	250.00	25000
	Gurgaon	Bonda Kalan	2.00	80.00	49600	80.00	16000
		Jamalpur	0.64	16.00	9920	16.00	2000
		Nasirwas	3.20	86.00	53320	86.00	10750
		Padeni	0.20	8.00	5040	8.00	1600
		Bhondsi	0.60	22.00	13860	20.00	2000
		Khentawas	0.80	32.00	20160	24.00	4800
		Wazir Pur	3.60	100.00	62000	100.00	20000
		Bichhor	2.00	80.00	50400	80.00	8000
	Mahendergarh	Uninda	0.60	25.00	15750	25.00	2500
		Sehlang	0.30	5.00	3150	5.00	500
		Kanina	1.40	52.00	43800	25.00	2500
		Riwasa	0.60	25.00	15750	25.00	2500
		Shaharpur	0.40	16.00	10080	16.00	1600
		Nangal Nunia	1.20	40.00	25200	40.00	6400
	Rewari	Satnali	3.20	75.00	47250	100.00	10000
		Suthana	0.60	20.00	12600	20.00	3600
		Manethi	0.40	20.00	12000	20.00	3000
		Palhawas	0.60	7.00	4550	6.00	900
		Palhawas	0.40	20.00	12600	20.00	2600
		Manethi	0.80	30.00	19500	40.00	4000
		Maheshwari	0.40	17.00	10710	18.00	4140
		Nahar	0.40	17.00	10710	18.00	4140
		Suthana	0.80	20.00	12600	20.00	2000

APPENDIX - III-B

Cropped area, Yield and Value of crops sown on Unirrigated land (Rabi) 2002-03

Zone	District	Holdings	Wheat			Wheat (Bhusa)	
			Area (Hects)	Yield (Qtls)	Value (Rs.)	Yield (Qtls)	Value (Rs.)
1	2	3	4	5	6	7	8
Northern	Ambala	Sullar	-	-	-	-	-
		Patvi	1.20	30.00	18900	30.00	3750
	Panchkula	Morni	1.21	20.00	13000	20.00	3000
	Kurukshetra	Thaska Miranji	0.70	26.00	16380	26.00	2600
Central	Rohtak	Madina	-	-	-	-	-
	Sonipat	Kheri Dhamkan	0.30	10.00	6300	10.00	1000
		Mudlana	0.40	8.00	5040	8.00	800
		Mohana	-	-	-	-	-
		Gudha	-	-	-	-	-
Western	Bhiwani	Hetam Pura	-	-	-	-	-
		Hetam Pura	-	-	-	-	-
		Dhani Hunat	-	-	-	-	-
	Hisar	Agroha	0.40	10.00	6300	10.00	1800
Southern	Gurgaon	Malab	-	-	-	-	-
		Kheri Nuh	-	-	-	-	-
	Mahendaragarh	Napla	-	-	-	-	-
		Godh	0.40	16.00	10400	16.00	3200
		Satnali	-	-	-	-	-
		Nangal Nunia	-	-	-	-	-

Pulses			Pulses (Bhusa)		Oilseeds			Green Fodder		Other crops	
Area (Hects)	Yield (Qtls)	Value (Rs.)	Yield (Qtls)	Value (Rs.)	Area (Hects)	Yield (Qtls)	Value (Rs.)	Area (Hects)	Value (Qtls)	Area (Hects)	Value (Rs.)
19	20	21	22	23	24	25	26	27	28	29	30
0.40	4.00	6000	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	1.20	25.00	41250	0.40	12000	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	1.60	20.00	38000	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	0.40	2.00	3400	-	-	-	-
-	-	-	-	-	4.60	70.00	119000	-	-	-	-
-	-	-	-	-	6.40	100.00	190000	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-



