

DEVELOPMENT OF AGRICULTURE SECTOR

4.1 Introduction:

Agriculture is the back bone of the district and an overwhelming 65% of its population lived in rural areas and is engaged in agriculture. The major kharif crops are Sugarcane, Paddy & Maize and rabi crops are Wheat, Gram, Lintel and Oil Seeds. Apart from this, Rupnagar city hosts the offices of District Training Officer, Assistant Agricultural Engineer (Imp) and PD ATMA

4.2 Land Use

The total geographical area of Rupnagar District is 138245 Ha. Out of this area 54 % area is under cultivation, Forest cover 23 % and 19 % area is under non agricultural use. During kharif season area under Paddy, Maize is 85.5%, 0.5% and 0.13% respectively where as in rabi season, area under Wheat and Oilseeds in the District is 90.2% and 0.35% of the net sown area respectively.

Table: Land Utilization Statistics (preceding 3 years average)

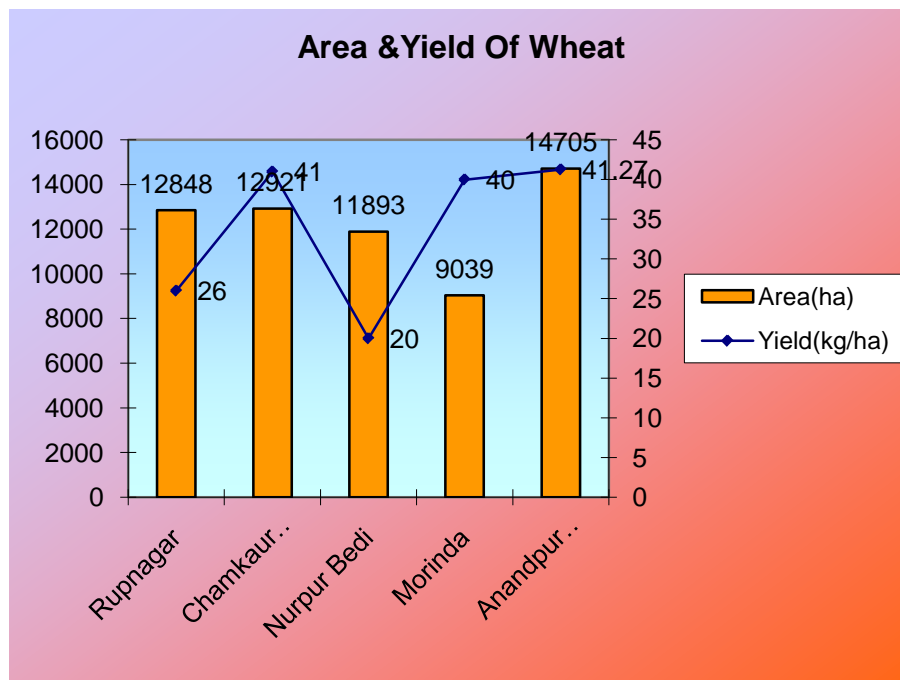
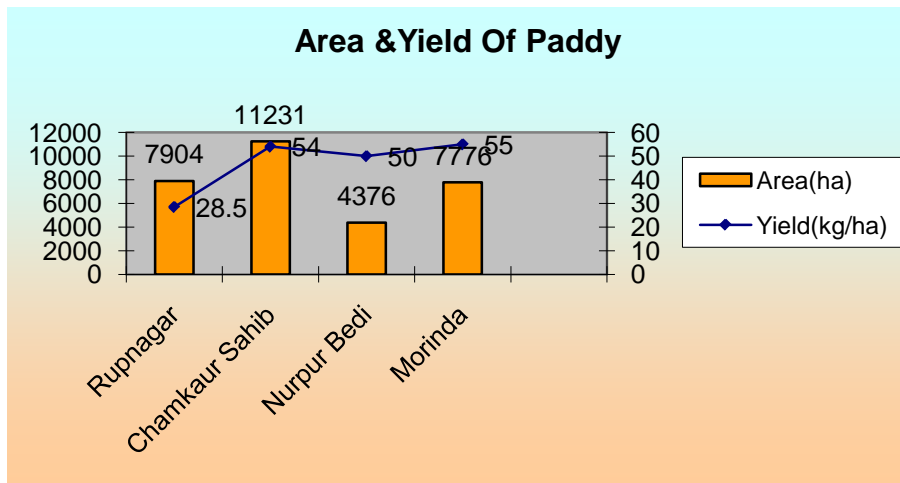
(Area in 000' hectares)

Block	Geographical area	Forest Area	Under Non-agril. Use	Culti. waste	Perma- nent pastures	Land under miscellaneous tree crops and groves	Current Fallows	Other Fallows	Net sown area	Gross cropped area	Croppin g intensity (%)
Rupnagar	38.421	8.797	9.185	0	0	0.220	0	0.103	16.936	32.064	176
Anandpur Sahib	31.510	5.301	8.330	0	0.702	0.252	0	0.104	16.318	24.763	162
Nurpur Bedi	35.322	11.601	2.400	1.275	0.870	1.985	0.840	0.392	15.074	28.610	183
Chamkaur Sahib	19.529	6.200	3.862	0.162	0	3.700	0	0	15.164	30.213	191
Morinda	13.463	0.084	2.200	0	0	0	0	0	11.261	22.594	188
TOTAL	138.245	31.983	25.977	1.437	1.572	6.157	0.840	0.599	74.753	132.964	162

Source: Dy. Economic Advisor & Village level Survey under RKVY

Area, Production and Yield of Major Crops in Irrigated/ Rain fed Conditions in District Rupnagar:

As Rupnagar is predominantly Rice – Wheat district and 88 % of its area is tubewell irrigated and 4% from other sources (canal and lift irrigation), while 11000 ha of its area is rain fed. Block wise area and its corresponding yield of these three major crops of the district is given below (Figure 13). Area, Productivity and Yields of other crops of the district under kharif and rabi season is given in Annexure V.

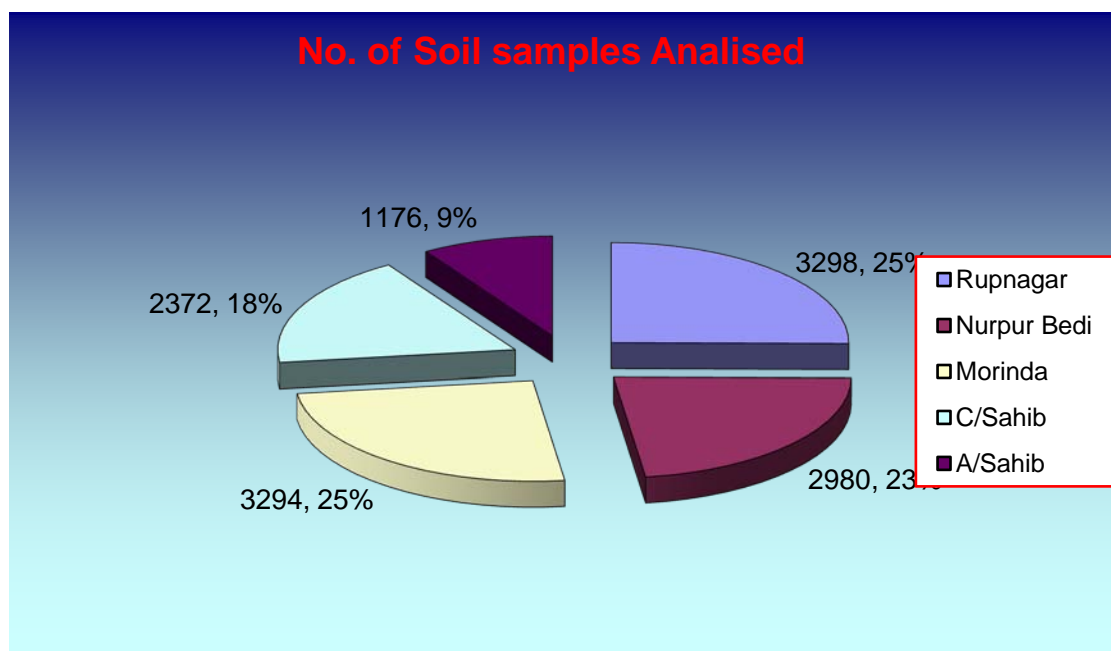


4.3 Soil Health

In general, soil is deficient in nitrogen and phosphorus. As per land capability classification 90-95% soil in the district is under class I (very good cultivable land) and 5-10% soil is under Class II (good cultivable land).

Table Soil Testing Laboratories in District Rupnagar

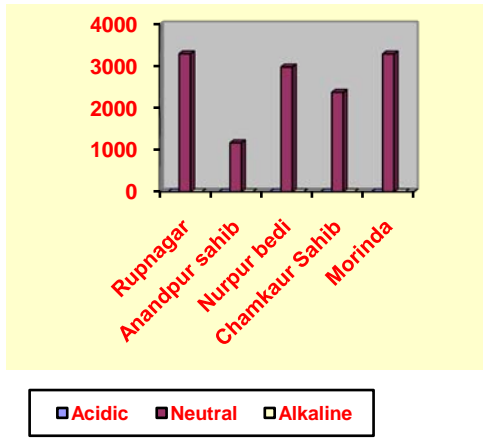
S. No.	Location of Lab	Block	Stationary/ Mobile	Whether test soil /micro-nutrient	Working under
1.	O/oCAO, Rupnagar	Rupnagar	Stationery	NPK	CAO
2.	Morinda	Morinda	Stationery	NPK	CAO
3.	Nurpur Bedi	Nurpur Bedi	Stationery	NPK	District Planning Board
4	Giani Zail Singh Nagar, Rupnagar	Rupnagar	Stationery	NPK and Micro-nutrients	MARKFED
5.	Haveli Kalan	Rupnagar	Stationary	NPK and Micro-nutrients	KVK



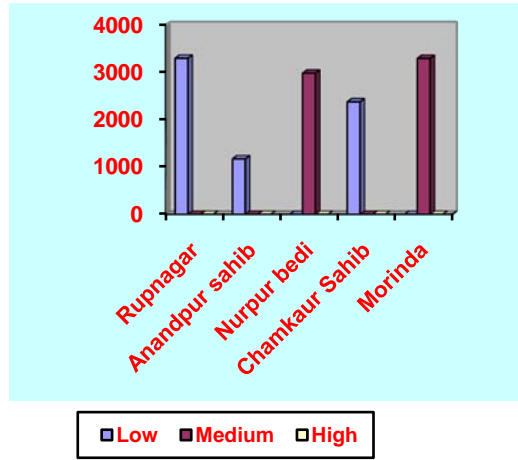
Soil Fertility Indices

The details of Soil pH, EC, organic carbon, available NPK on the basis of total soil samples tested by soil testing laboratories of department of Agriculture throughout the year covering all blocks is given in table attached as Annexure VI where as an overall picture of the district regarding soil fertility indices is shown in Figures 15a to 15 f.

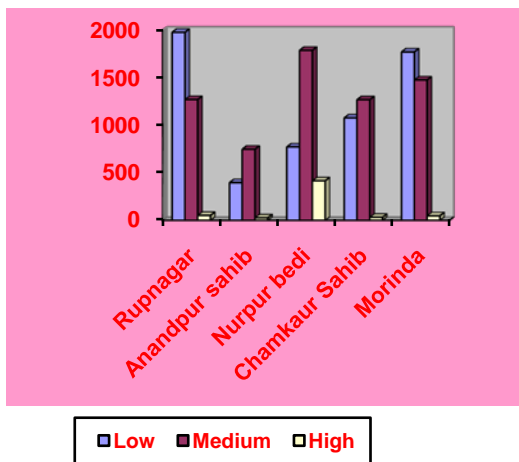
Soil pH



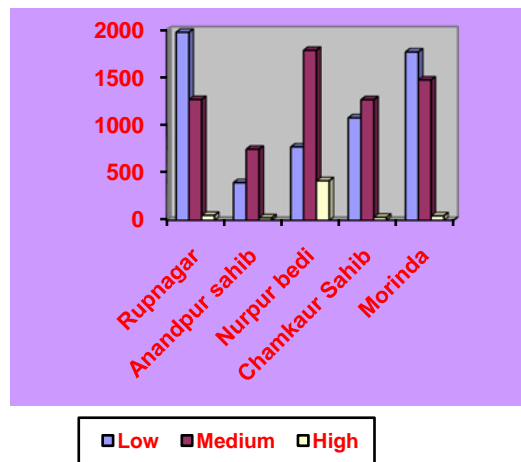
EC(dc/m)



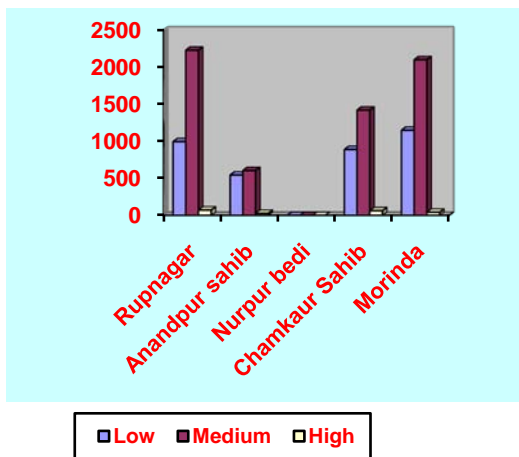
Organic Carbon(%)



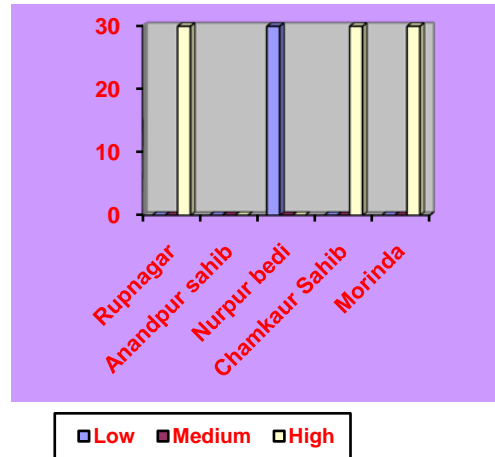
Available Nitrogen(kg.ha)



Available Phosphorus(kg/ha)

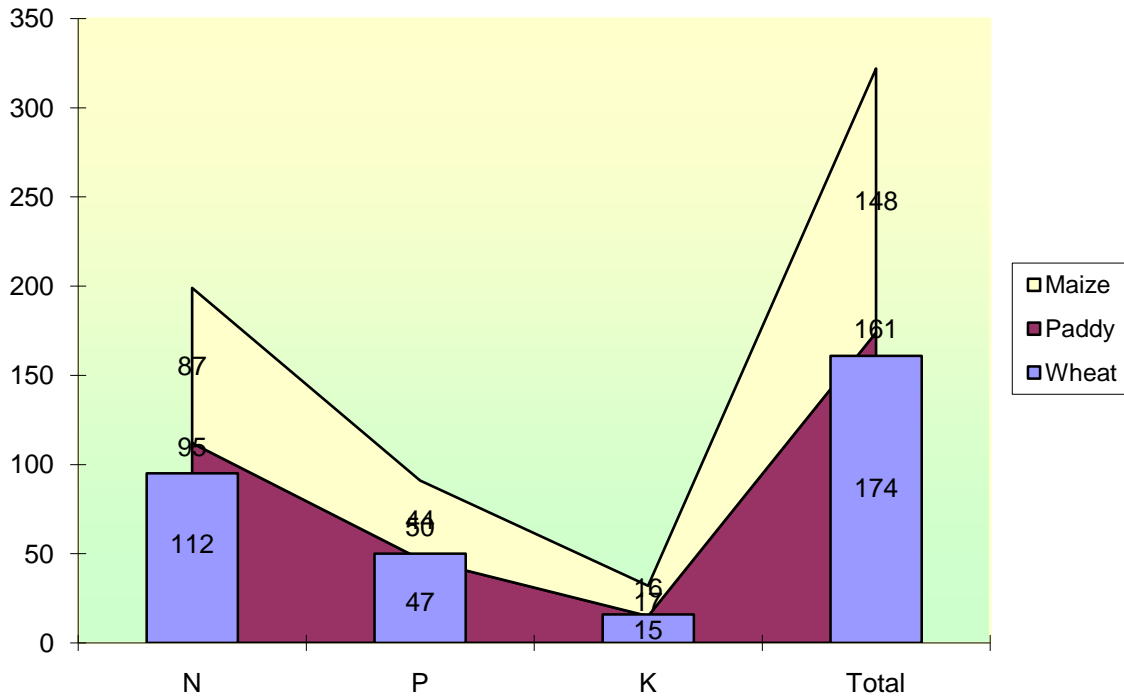


Available Potash(kg/ha)



Source: Soil Testing Labs, Deptt of Agriculture

Cropwise Fertiliser consumption(m-ton)

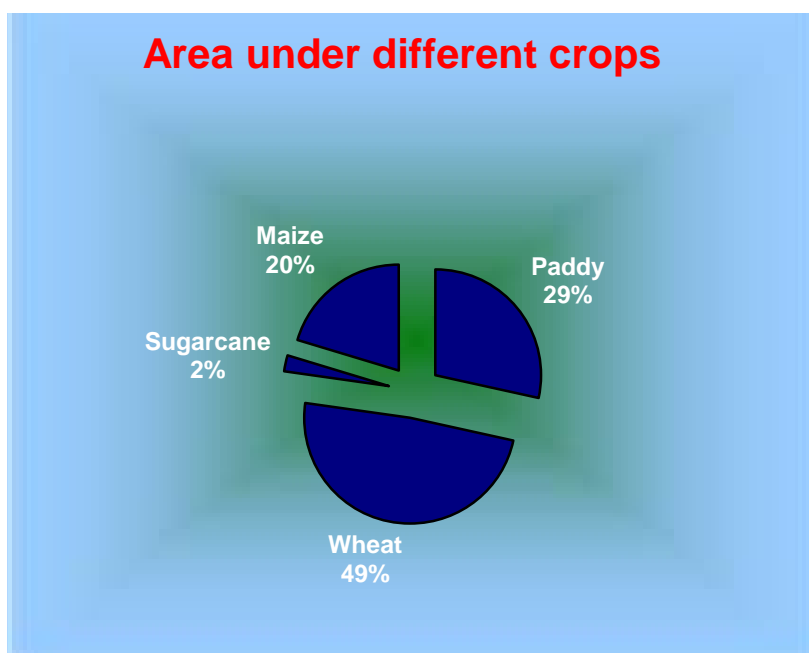


It is quite clear from the figures above that except availability of Potash (K), the district soils are low to medium as far as availability of Organic carbon, Nitrogen and Phosphorous is concerned. Further the N and P can be supplemented using chemical fertilizers however the content of Organic Carbon in soil can only be increased when we use FYM, Organic manures, mulching of straw residue of previous crop etc. Further poor carbon content of soil may lead to many complex problems such as

- Non availability of micro nutrients from the soil
- Poor crop growth
- Poor water retention capacity
- Ineffectiveness of weedcides etc

4.5 Major Crops and Varieties in the District

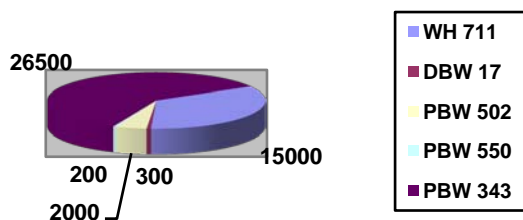
Paddy/Rice is the major crop of the kharif season as it covers more than 28 % of the net sown area and during rabi, wheat, accounting for more than 50% (**Figure 12**) area, is the major crop and the detailed table is given in Annexure V.



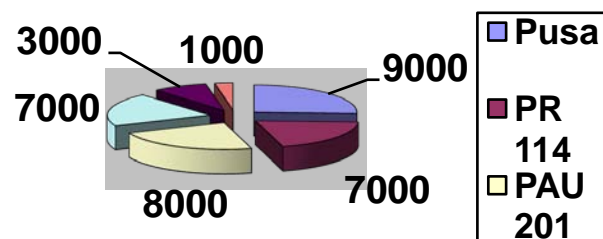
Varieties of Major crops grown in Rupnagar

S. No	Crop	Type	Varieties sown in the district
1	Rice	Paddy	Pusa 44, HKR- 47, PR 113, PB I, PR114, 116, 118, 113, PAU 201
		Basmati	Punjab Basmati 1, 370, Pusa 1121
		Hybrids	6444,6129(Proagro) PHB71,72(Advanta) NK3325(Sygenta), Snehwhite(VivaAgro)207(Nizuvidu) RH257(Monsanto)RH 10
2	Wheat	Hexapod	WH 711, DBW 17, PBW 502, PBW 550,PBW 343
3	Maize	Hybrid	Hybrid Shell, Double (Monsanto), 31Y45 (Pioneer), Swarna (Nizuvedu),Swarna, Mukta(Syngenta),MRM3824(Mahyco), BUS2015,Hycork 2000(Vibha)Bio 9637 (Sri Ram)
		Composite	Buland, PARAS (PAU),
4	Sugarcane		TL 15 (toria), Hyola (sarson), sunflower

Area under different Varieties of Wheat(Ha)



Area under Different varieties of Rice(ha)



4.6 Input Management

The district has wide spread network of input dealers which are well connected to all parts of the district via good roads. Rupnagar has the distinction of having first rake point at the entry level on the main rail link at Rajpura & Khanna. Inputs of various kinds are readily available when ever required through the following

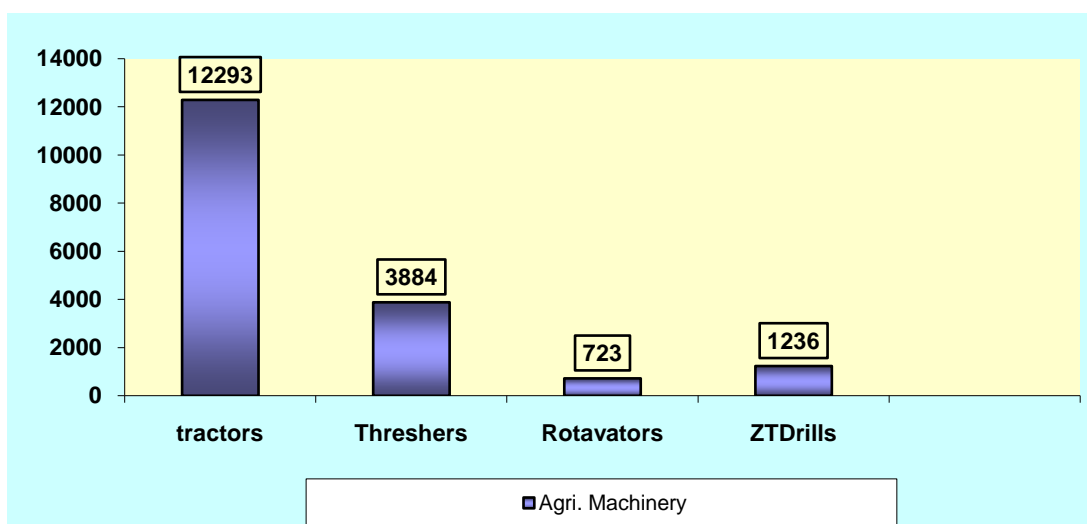
Input supply mechanism

S.No	Sector	Input Supplying agents	No.
1	Public sector	Agriculture Department	5
2	Cooperative sector	<ul style="list-style-type: none"> • IFFCO, Markfed • PUNSEED (seed only) • Coop societies 	13 6 85
3	Private sector	<ul style="list-style-type: none"> • Seed Dealers • Fertilizer Dealers • Pesticide Dealers 	86 151 160

4.7 Farm Mechanization

Agricultural mechanization like any other input is a critical input timely performance of various agricultural operations for increasing the production and productivity. Mechanization is viewed as package of technology to insure timely field operations for increasing productivity, reduce crop losses and to improve quality of agro produce, increase land and other inputs productivity, increase labor saving, drudgery reducing devices being cost effective & eco friendly. To ensure sustainability of agriculture by conservation of natural resources like water, soil health and environment, it is very much essential to popularize the new technological interventions like raised bed planter, zero till drill technology precision leveling of fields manipulation of crop residue into the soil. To promote these interventions it is necessary that farmers be provided some assistance in acquiring newly developed agricultural machinery to carry out these interventions. These agricultural machinery/equipment are generally cost intensive and it is not possible for individual farmer specially the small and marginal farmers to acquire without any financial assistance from the government .It is proposed to provide these machines with the co-op societies by subsidizing to @ 50 % of the cost so that all types of equipment needed can be provided in the co-op societies and member farmers can use these equipment by paying nominal fee necessary for up keep of these machines plus a little extra to promote the financial help of the co-op societies. This will ensure the greater annual use of the machine thereby reducing the cost of operation and will also eliminate the necessity of individual farmer owning the machine for a very limited annual use. The status of various types of machinery possessed by Rupnagar farmers in given in table annexed as Annexure VIII and the major farm power implements of the district are shown in

Figure 17: Status of Major Farm Power Machinery in District Rupnagar



There is dire need to create more awareness among the farmers in respect of proper use of farm machineries for high efficiency saving human and energy resources.

4.8 Special projects going on in the District:

1. Centrally Sponsored (90:10) Agricultural Technology Management Agency (ATMA) Scheme is being implemented in District Rupnagar since 2004-05 for strengthening the present extension system under the Extension Reforms Scheme
2. National Food Security Mission (Wheat) has been implemented since 2007-08
3. The integrated scheme of oil seed, pulses and maize (ISOPOM) is being implemented in the District since 2004-05
4. Macro Management Mode of Agriculture is also being implemented in the District to strengthen the mechanization in agriculture since 2006-07