DETAIL OF ON GOING SCHEMES

The department is functioning with number existing schemes in the field of agriculture. With these schemes Farmer Field Schools (FFS) to promote IPM in Cotton is functioning with scouts at monthly payment basis .Training of extension worker is being imparted. FFS to promote bio pesticides are also operating. To promote area under Oil seed & Pulses, funds are available for demonstration, IPM demonstration and for training camps. Apart from it, funds are also available for mechanization of agriculture, with these funds new/ innovative implements and machinery are supplied to farmer at subsidized rates. Under seed village scheme certified wheat seed is supplied at 50% subsidy along with funds for technical training camps to produce healthy seed in selected villages.

The growth of 4 % is not possible because of delay in release of funds under on going schemes. Almost all the schemes were sanctioned at the fag end of the financial year i.e at the 1st or 2nd weak of the March, so at this stage these schemes could not meet the purpose of the scheme .Apart from this, the funds made available under these schemes are too less to motivate the farmer that to extent what it should be. Some time the funds made partially available which could not meet the requirement of scheme .Strength of the extension staff has been decreasing day by day and no funds are made available for strengthening of the extension services. However, it is pertinent to mention here that since last year, a new scheme named ATMA came into existence, with the implementation of this scheme, the dissemination of technology has speeded up and hence this scheme has become effective motivation of the campaign for boosting the production of agriculture and allied sector.

The role of Existing schemes/ on going schemes

The different on going schemes are as under

1-Cotton Mini mission

Under this scheme, Rs 1.19 lac were sanctioned for 7 F FS in cotton. These schools were operated in cotton season to educate the farmers to adopt IPM techniques in cotton. The farmers are advised to visit their field twice a weak for surveillance and spray when it is required. This technique was effective to minimize the pesticide consumption because at least 2 to 3 sprays were saved by the farmers. Apart from it, Rs 1.00 lac was

sanctioned for the appointment of 7 scouts @ Rs.2500 per month for 6 months to facilitate the extension functionaries during these Farmer Field Schools (FFS). Due to the shortage of staff these scouts play very effective role to convey the messages/ recommendation of Agriculture Experts. An amount of Rs 0.30 lac was sanctioned for training of extension functionaries and scouts to update the technical skill and the same yielded very fruitful results.

2- Integrated Nutrient Management

Under this scheme Rs 0.17 lac were sanctioned for the running of FFS to promote bio pesticides. This school plays effective role in motivation of farmers to adopt the bio pesticides.

3-Agri promotion of farm Mechanization

Under this scheme Rs 25.00 lacs were sanctioned to supply new/ innovative Machinery .The farmers adopt it very keenly. The scheme is very fruitful to minimize the cost of cultivation.

4 Centrally sponsored Integrated Scheme for Oil seed & Pulses-

Under this scheme Rs 0.45 lac were sanctioned to run FFS on oil seed. There is great need to increase area under oil seed crops .The existing school play very effective role to motivate the farmers to brought area under oil seed crops. In addition to it Rs.0.30 lac were sanctioned for demonstration on oil seed crops so that the farmer can adopt recommended practices. Rs 0.45 lac was sanctioned for imparting training to farmer regarding the cultural practices of oil seed crops. Rs 0.30 lacs were sanctioned for imparting training to farmers regarding the package practices of pulses. The demonstrations and training yielded fruitful results.

5- ISOPAM Pulses Scheme

Under this scheme Rs 0.375 lacs were sanctioned for block level demonstration to promote the area under gram cultivation. Apart from it Rs 0.45 lac were sanctioned for IPM demonstration on gram cultivation, so that the use only need base spray to minimize the consumption of pesticides .Rs 0.15 lac were sanctioned to impart training

regarding the cultural practices of grams. The existing schemes play very effective role to motivate the farmers.

6-Seed village scheme

Under this scheme Rs 5.67 lac were sanctioned for imparting training in 54 selected villages to produce healthy wheat seed because the seed is prime factor to boost the production. With these funds 3 training camps were organized in each selected villages at sowing time, rouging time and at threshing, so that the healthy seed can be produced. Apart form it Rs 5.59 lac were sanctioned to supply 658 qtl Certified wheat seed at 50 % subsidy @ Rs 850/qtl. This scheme is very fruitful quantum jump in the production of wheat crop. Rs6.50 lacs were sanctioned to supply the store bin for the storage wheat seed, so that the seed can be escaped from pests.

7- ATMA Scheme-

This scheme was introduced since 2008-09 in this district. This scheme is bottom up scheme and is very flexible to circumstances. Under this scheme the following activities are carried out. Trainings & Exposure Visits --Training at districts level within state and inter state were organized. Apart from it exposure visits at districts levels, within state and inter state levels which proved very fruit full to speed up the dissemination of technology.

a-)Demonstration- As per the action plan of ATMA ,required demonstrations were organized to eliminate the technological gaps to increase yield productivity.

b)-Encouragement of **the progressive farmers & Successfully running groups**.- under this scheme ,progressive farmers are awarded so that the farmers are encouraged to adopt innovative techniques . Apart from it successes fully running groups were also awarded, so that the more number of groups are activated.

C-Capacity building of farmer groups—under this scheme, different trainings was organized to build up the skill of the farmer groups for the successfully running of the groups

d)-Kissan Mela/ Ghoshti—Under this scheme the kissan melas were organized at district levels to provide technical knowledge to the farmer for the cultivation of agri. Crops.

e)-Field Days--- Under this scheme, field days were organized at block level. The farmers from different villages of the block were suggested to join the field day to share their feed backs

f)-Farmer-Scientist Interaction— Farmer scientist interactions were organized at districts level. During the interaction, farmer shared their field problems with scientists and reasonable solutions were provided by the scientists.

g)-Dissemination of technology- For the dissemination of technology, success stories and technical literature were distributed to the farmers to speed up the diffusion of technology. Apart from it, different activity carried out under ATMA scheme were recorded in CD & Slide form to project on projector to motivate the farmer to adopt new technology.

So, the ATMA scheme is very effective to increase production.

Table 4.9.9 Detail of crop Production during previous five years (000Mt)

Sr. No.	Name of the Crop	Target	2004-05	2005-06	2006-07	2007-08	2008-09	Total
1	Cotton	Target	413	389	430	438	386	2056
		Achieve	350	365	405	438	366	1924
2	Paddy	Target	279	245	250	240	275	1289
		Achieve	307	291	259	252	296	1405
3	Moong	Target	0.5	0.6	1	0.3	0.3	2.7
		Achieve	0.4	0.4	0.4	0.2	0.2	1.6
4	Guara	Target	2.8	3.7	3.4	4.2	4.3	18.4
		Achieve	2.4	3.2	3.8	4.6	4.4	18.4
5	Wheat	Target	691	623	714	715	772	3515
		Achieve	707	612	718	727	787	3551
6	Barley	Target	9	5	8	4	5	31
		Achieve	6	5	6	3	4	24
7	Oil Seed	Target	6	6	5	2.5	3.5	23
		Achieve	5	4	3	2	3	14
8	Gram	Target	0.8	0.3	0.6	0.3	0.3	2.3
		Achieve	0.3	0.2	0.5	0.2	0.1	1.3
	Total	Target	----	---	---	----	---	
		Achieve	**1378.00**	**1280.80**	**1395.70**	**1427.00**	**1460.70**	**6942.20**

4.11-Researchable issues relating to agriculture crops ---

As per the data analysis of the primary data following problems are identified which need to be researched for recommendation. The issues are as under: -

1. Evaluation of hybrids/varieties of crops that are already adopted by the farmers. The common varieties that are not recommended by PAU, but the farmer have adopted it. The varieties of paddy are PUSSA-1134, PHB-71, PHB-1161 & RH-257, varieties of Amm.cotton are OM-303, 6488, JK-47 & SDS-9, varieties of wheat Sonalika, UP-2338, WH-711& HD-2687 the varieties of Sarson are Luxmi, Pussa bold, Varuna and Pussa Jai Kissan, the varieties of barley are K-551& BH-393 and varieties of Guara are RGC-936, HG-365 & HG-563. These varieties need adaptive trials at farmer field level. The positive and negative points that are observed during trials should be exposed publicly, so that any confusion regarding above varieties may be removed.
2. Evaluation of spray technology in BT cotton- As the 98% area of cotton crop is under BT cotton which requires negligible/vary less sprays which leads to problem of minor pests like Tobacco caterpillar, Mealy bug an other sucking pests that are becoming major pests, so for proper recommendation for BT cotton adopted trials should be conducted in zone-2 &3
3. Introduce early maturing cotton hybrid/ varieties for sowing of wheat crop well in time.
4. Recommendation of effective integrated pest management for the control of mealy bug that should be easily adopted by the farmer of zone -2&3
5. Introduce proper cultural package practice and nutrients management for Bt cotton because the recommendation of different companies are different which leads to create confusion for this purpose adopted field trials should be conducted at farmer field level.
6. BT cotton being wider space crop, the problem of weeds is very much serious which requires development of post emergence spray of weedicide for the control of weeds.
7. Cotton is a labour consuming crop which require very heavy labour for picking so there is need to develop cotton variety suitable for mechanical picking.
8. Introduce cotton picker to reduce labour burden.

9. Develop variety of summer move heaving synchronous maturity, so as to fit in paddy-wheat rotation.

10. Develop Simple nursery raising techniques that should be effective for paddy transplanter to ensure recommended plant population in paddy.

11. Introduce paddy variety resistant to plant hopper.

12. With the introduction of new molecule of weedicide, new weeds like **poa annua** is becoming serious problem that needs to develop recommendation for chemical control.

13. Introduce Gram variety registrant to blight and wilt.

14. Introduce cotton variety registrant to Para built.

15. Introduce high yielding varieties of moon, gram, sarson and barley that should be suitable for rain fed as well as for salt affected area of Zone-2&3

5.8.2 Bee Keeping

In this districts flora is available in through out the year , so , this belt is very suited for rearing of honey bees. About 130 bee keeper are rearing with 3207 colonies are producing 400 qtl Honey every year. Still there vide scope of bee keeping as this activity is very effective in generating employment for rural youth.

Annexure .2.2.1 General information (Rural)

General						Population (as per the 2001 Census)				
/Block	Villages		No. of Revenue Villages	Area (ha)	No. of GPs	Male	Female	Total	S.C.	S.T.
	In-habited	Un-inhabited								
Mansa	42	--	42	46643		55077	48113	103190	33720	---
Bhikhi	33	---	33	39833		48028	41641	89669	26274	----
Budhlada	87	1	86	71340		99771	88372	188143	65344	-----
Jhunir	42	--	42	30260		44885	39191	84076	25967	-----
Sardulgarh	40	--	40	28567		43002	83249	81251	23520	----

Annexure.2.2.2 Block wise Av. Rainfall & No of Rainy days

Particular	Name of Block				
	Mansa	Bhikhi	Budhlada	Sardulgarh	Jhunir
No. of rainy days	41	41	30	28	24
Average rain fall (mm)	7.0	7.0	6.7	5.4	7.1

Annexure.2.2.3 Block wise monthly rainfall data

(Latest Data)

Sr. No.	Block	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	Mansa	2.8	1.8	---	12.0	18.6	121.4	40.0	73.4	20.6	2.8	--	--
2	Bhikhi	2.8	1.8	---	12.0	18.6	121.4	40.0	73.4	20.6	2.8	--	--
3	Budhlada	1.0	----	----	7.0	22.3	65.9	36.8	51.8	14.4	---	----	---
4	Saqrdulgarh	2.6	2.8	----	8.0	4.2	43.0	36.2	44.2	12.4	-----	----	-----
5	Jhunir	2.1	1.2	-----	7.4	13.8	85.2	25.4	33.8	1.6	------	----	----
	Total	11.3	7.6	-----	46.4	77.5	436.9	178.4	276.6	69.4	5.6	----	-------

Annexure .2.2.4 Land Holdings (Agriculture Census 2001)

(Holdings in numbers and area in ha)

Block	Marginal Farmers		Small Farmers		Semi-med. Farmers		Medium Farmers		Large Farmers		Total	
	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area
Mansa	904	642.28	1219	1716.40	2913	7719.77	3207	18245.82	824	11652.60	9076	39976.87
Bhikhi	882	626.20	1155	1625.90	2703	7163.20	3091	17585.70	564	7975.70	8395	34976.70
Budhlada	1311	925.26	1872	2701.07	4990	1292.30	4821	26594.17	1127	17108.36	14121	60249.16
Jhunir	486	327.93	674	969.24	1690	4588.46	2031	11777.7	709	10064.80	5590	27427.86
Sardulgarh	465	310.90	628	902.90	1529	4151.30	2008	11643.80	569	8077.40	5199	25086.03

ha-marginal farther, 1-2 ha- Small Farmers, 2-4 ha semi-med. Farmers, 4-10 ha-medium farmers and more than 10 a

Annexure 4.1 Block wise Fertility Status of Distict Mansa

Block	Sample analyzed	Soil pH			EC (dS/m)			Organic carbon(%)		
		Acid	**Neut**	**Alkal**	**Low**	**Med**	**High**	**Low**	**Medium**	**High**
Mansa	1234	-----	802	432	407	605	222	311	472	451
Bhikhi	1099	---	769	330	418	506	175	335	480	284
Budhlada	1635	----	971	664	491	752	391	1006	480	149
Jhunir	1151	---	460	691	334	460	357	721	318	112
Sardulgarh	1052	-----	442	610	316	442	294	639	316	97
Block	**Sample analyzed**	**Available Nitrogen (Kg/ha)**			**Available Phosph (Kg/ha)**			**Available Potash (Kg/ha)**		
		Low	**Med**	**High**	**Low**	**Med**	**High**	**Low**	**Med**	**High**
Mansa	1234	331	482	441	191	518	525	---	410	824
Bhikhi	1099	355	520	224	176	547	376	---	399	700
Budhlada	1635	1193	329	113	705	819	111	---	595	1040
Jhunir	1151	777	301	77	382	601	168	---	459	692
Sardulgarh	1052	702	299	51	381	608	63	---	551	501

Annexure 4.2 Block wise Fertility status of available Nitrogen & Phosphorus

Block	**Availability of Nitrogen**					
	Low in Nitrogen		**Medium in Nitrogen**		**High in Nitrogen**	
	Area(ha)	%	Area(ha)	%	Area(ha)	%
Mansa	8703	27	12571	39	10960	34
Bhikhi	9699	32	14245	47	6365	21
Budhlada	40825	72	11340	20	4536	8
Jhunir	17870	67	7323	26	1972	7
Sardulgarh	17696	67	7396	28	1321	5

Total	94793		52875		25154	
Block	**Availability of Phosphorus**					
	Low in Phosphorus		**Medium in Phosphorus**		**High in Phosphorus**	
	Area(ha)	%	Area(ha)	%	Area(ha)	%
Mansa	4835	15	13538	42	13862	43
Bhikhi	4849	16	15155	50	10306	34
Budhlada	24382	43	28351	50	3969	7
Jhunir	9294	33	14645	52	4225	15
Sardulgarh	9509	36	15320	58	1585	6
Total	52869		87009		33947	

Annexure 4.3 Quality of tube well water (%) in district Mansa

Block	**% of water quality**		
	Fit	**Moderately fit**	**Unfit**
Mansa	33	49	18
Bhikhi	38	46	16
Budhlada	30	46	24
Jhunir	29	40	31
Sardulgarh	30	39	31

Annexure.4.4 Block wise,Area, Production and Yield of Major Crops during Rabi

Crops	Block	Area (ha)					Production					Yield (q/ha)		
		Irrigated	%	Rain fed	%	Total	Irrigated	%	Rain fed	%	Total	Irrigated	Rain fed	Average
Wheat	Mansa	31746	100	3	---	31749	149047	100	7.8	-----	149057	4695	2580	4695
Oilseed		214	81	51	19	265	323	91	33	09	356	1510	650	1343
Gram		26	93	2	07	28	37	96	1.5	04	38.5	1410	670	1375
Barley		179	93	13	07	192	643	95	33	05	676	3590	2540	3521
Wheat	Bhikhi	30047	100	---	--	30047	141371	100	------	-----	141371	4705	----	4705
Oilseed		123	89	16	11	139	187	95	10	05	197	1520	630	1410
Gram		18	95	1	05	19	25	98	0.6	02	25.6	1390	610	1347
Barley		99	95	5	05	104	354	97	12	0.3	366	3580	2390	3519
Whea	B	55703	100	--	--	55703	255788	100	---	---	255788	4592	-----	4592

t														
Oilseed		478	80	120	20	598	626	90	71	10	697	1310	590	1165
Gram		19	59	13	41	32	26	77	08	23	34	1385	640	1063
Barley		356	97	13	03	369	1213	98	30	0.2	1243	3410	2270	3368
Wheat	SardulGarh	25279	100	--	---	25279	113426	100	---	----	113426	4487	--	4487
Oilseed		726	84	137	16	863	1013	93	80	07	1093	1395	585	1266
Gram		18	69	8	31	26	25		5		30	1410	630	1153
Barley		236	96	10	04	246	791		23		814	3350	2310	3310
Wheat	Jhunir	27417	99.9	8	0.1	27425	122937	100	20	---	122957	4484	2470	4483
Oilseed		245	65	132	35	377	339	81	78	19	417	1385	590	1106
Gram		30	59	21	41	51	44	75	15	25	59	1465	690	1157
Barley		305	98	7	02	312	1020		17		1037	3345	2370	3324

Annexure 4.5 Block wise,Area, Production and Yield of Major Crops during Kharif

Crops	Block	Area (ha)					Production					Yield (q/ha)		
		Irrigated	%	Rain fed	%	Total	Irrigated	%	Rain fed	%	Total	Irrigated	Rain fed	Average
Cotton	Mansa	24085	99.8	27	0.2	24112	101299	99.9	49	0.1	101348	715	310	714
Paddy		13744	100	--	---	13744	59237	100	------	----	59237	4310	--	4310
Moong		38	93	3	07	41	35	96	1.5	04	36.5	910	490	890
Guara		207	55	168	45	375	244	72	96	28	340	1180	570	906
Cotton	Bhikhi	7648	99.6	29	0.4	7677	32257	99.8	53	0.2	32310	717	313	715
Paddy		21075	100	--	---	21075	92625	100	---	---	92625	4395	---	4395
Moong		24	80	6	20	30	21	91	2	09	23	890	385	767
Guara		300	81	70	19	370	327	90	35	10	362	1090	495	978
Cotton	Budh--lada	24870	99.8	26	0.2	24896	101235	99.9	46	0.1	101281	692	302	692
Paddy		27510	100	--	----	27510	112516	100	---	---	112516	4090	--	4090
Moong		87	72	34	28	121	78	86	13	14	91	895	370	752
Guara		1243	58	911	42	2154	1330	76	424	24	1754	1070	465	814
Cotton	Sardulgarh	16471	100	--	---	16471	66368	100	---	--	66368	685	---	685
Paddy		2460	100	--	---	2460	9914	100	---	--	9914	4030	--	4030
Moong		65	84	12	16	77	53	94	3.5	06	56.5	815	295	734
Guara		773	77	229	23	1002	750	89	94	11	844	970	410	842
Cotton	Jhunir	18564	99.9	13	0.1	18577	75130	99.9	23	0.1	75153	688	295	688
Paddy		5922	100	--	---	5922	23658	100	-----	----	23658	3995	---	3995
Moong		57	93	4	07	61	44	98	1	0.2	45	775	285	737
Guara		999	79	267	21	1266	954	89	115	11	1069	955	430	844

Annexure .4.6 Crop wise NPK Consumption Of distt. Mansa

Sr. No.	Block	Major Crops	Fertilizer Consumption (Kg/ha)			
			N	P	K	Total
1	Mansa	Wheat	165	60	--	225
		Cotton	165	56	30	251
		Paddy	167	60	---	227
2	Budhlada	Wheat	155	57	---	212
		Cotton	145	50	20	215
		Paddy	160	57	----	217
3	Bhikhi	Wheat	172	63	---	235
		Cotton	165	57	30	252
		Paddy	175	60	---	235
4	Sardulgarh	Wheat	145	55	---	200
		Cotton	125	45	15	185
		Paddy	150	50	--	200

5	Jhunir	Wheat	142	55	---	197
		Cotton	125	45	10	180
		Paddy	145	45	---	190

Annexure No. 4.8 Water Analysis Report of district Mansa

Name of the Block	No. of Water samples analyzed	Permissible C-1	Moderately Safe C-2	Unsafe C-4
Mansa	613	203	300	110
Budhlada	870	261	400	209
Bhikhi	579	220	266	93
Jhunir	511	149	204	158
Sardulgarh	462	138	194	130

Annexure .4.9.Detail of farm machinery in District Mansa

Sr	Block	Tractor	Combine	Seed drills	Thresher	Straw reaper
1	Mansa	3249	90	2041	345	546
2	Bhikhi	3181	44	1251	730	193
3	Budhlada	3269	50	2055	956	320
4	Jhunir	3140	66	1533	355	145
5	Sardulgarh	2970	46	1151	1026	150
	Total	**15809**	**296**	**8031**	**3412**	**1354**