

## **Tour report of Dr. J.P. Singh on his visit to Gujarat from 3<sup>rd</sup> -6<sup>th</sup> October , 2016**

This tour was undertaken to review area coverage and crop prospects and progress of implementation of NMOOP in Rajkot district from 3<sup>rd</sup>-6<sup>th</sup> October, 2016. The details of Officers, who accompanied during the field visit in Rajkot is given below:

<b>Name</b>	<b>Designation</b>	<b>Department</b>
Dr. J. P Singh	National consultant (NMOOP)	DAC & FW, New Delhi
Shri. Shital Patel	Assistant Director	State Head Quarter, Gujarat
Shri. R. R. Telva	District Agriculture Officer	Rajkot
Dr. A. V. Khanpara	Programmed coordinator	KVK – Targhadiya, Rajkot
Shri. J. G. Rathod	Manager	GSSC- Rajkot
Shri. M. P. Hothi	Deputy Marketing Manager	HIL
Shri Mohit Borsaniya	Marketing Officer	HIL

2. The rainfall situation, area coverage, condition and prospects of major Kharif crops; prospects for Rabi crops; progress of implementation of strategic interventions of NMOOP like seed production, supply of seeds, cluster demonstration laid out by SDAs/KVKs including seed hubs of pulses, input dealers and arrival and price situation in APMC, Rajkot were reviewed during the field visit. The event wise highlights are summarized as under:

### **2.1 Rainfall situation**

As against the normal rainfall of 797 mm, rainfall of 653 mm (82%) was received in the State till end of September. Normal rainfall was received in Saurashtra and South Gujarat and it was deficient in Kutch, North Gujarat and East-Central Gujarat. There was wide spread rainfall ranging between 25 mm to 1000 mm between 3<sup>rd</sup> to 6<sup>th</sup> October in the State with heavy rainfall of >50 mm in Rajkot on 3<sup>rd</sup> October. This rainfall will be more beneficial for the cotton crop, which has largest coverage in the State and second largest in district Rajkot after groundnut, but will have adverse impact on the quality of early sown small area (<1%) of groundnut and sesame which have already been harvested and lying in the field.



**Adverse impact of rains on the quality of groundnut lying in the field**

## 2.2 Area coverage and crop prospects during Kharif-2016

An area coverage of 86.23 lakh ha has been achieved during Kharif-2016 as against the normal area coverage of 86.71 lakh ha and last year coverage of 85.04 lakh ha. Cotton has largest share (28%) in Kharif crops with an area coverage of >24 lakh ha followed by groundnut (19%) with area coverage of >16 lakh ha and paddy (9%) with an area coverage of >7 lakh ha during Kharif-2016. Area coverage under pulses has gone up by 65%, whereas, area under cotton has gone down by 15%. The crop wise details of area coverage are given below in **Table-1**.

**Table-1 Area, production and productivity of major Kharif crops**

S.No.	Crops	Normal (Avg. of last 03 years)	Kharif - 2015	Kharif - 2016	% of normal
1	Paddy	7.74	7.61	7.83	101
2	Coarse Cereals	6.22	5.55	5.90	95
<b>3</b>	<b>Pulses</b>				
3.1	Arhar	2.35	2.32	3.45	147
3.2	Green gram	1.05	1.04	1.47	140
3.3	Black gram	0.74	0.68	2.01	271
<b>Total Pulses</b>		<b>4.44</b>	<b>4.24</b>	<b>7.33</b>	<b>165</b>
<b>4</b>	<b>Oilseeds</b>				
4.1	Groundnut	13.94	12.96	16.42	118
4.2	Sesamne	1.39	1.54	1.37	98
<b>4.3</b>	Castor	7.14	7.78	5.63	79
<b>Total Oilseeds</b>		<b>23.37</b>	<b>23.27</b>	<b>24.84</b>	<b>106</b>
5	Cotton	28.21	27.61	24.05	85

2.2.1 Cotton and groundnut are the major Kharif crops followed by paddy and coarse cereals in the State. The crop of cotton, which is at ball formation stage, is by and large in excellent condition. No major disease pest was noticed in cotton during the field visit. Installation of pheromone traps in advance were noticed in village Khejaria. Adoption of high density plant population in cotton is getting popular in the district particularly under irrigated condition.



**Cotton with high density plant population**

**2.2.2** In so far as, oilseeds are concerned, groundnut, sesame and the castor are the major crop in the state. An area coverage of 16.33 lakh ha under groundnut as against the normal area of 15.10 lakh ha and last year coverage of 14.14 ha indicates an increase of >8%. The crop condition of groundnut in district Rajkot was normal and no major disease pest was observed during the field visit except incidence of stem rot in few fields and white grub in general. The emergence of white grub is a new phenomenon occurring from last 03-04 years. The farmers are scared of its management even with high doses of PP chemicals (Phorate 10-G). Use of more PP chemicals may be a threat both for human and animal health and export market of groundnut. Area production, and yield of oilseed crops is given below in **Table-2**

**Table-2 Area production, and yield of oilseed crops**

(A= Area in lakh ha, P= Production in lakh tonnes and Y=Yield in kg/ha)

S.No.	Crops	Normal (Avg. of last 03 years)			2015-16			2016-17		
		A	P	Y	A	P	Y	A	P	Y
1	Groundnut	15.10	30.75	1900	14.14	20.42	1444	16.33	35.96	2202
2	Sesame	1.82	0.95	524	1.66	0.67	403	1.26	0.63	502
3	<b>Soybean</b>	0.54	0.41	751	0.80	0.54	675	1.37	0.98	717
4	Castor	6.97	14.36	2065	7.02	13.13	1870	4.00	8.10	2025
	<b>Total</b>	<b>24.43</b>	<b>46.47</b>	<b>5240</b>	<b>23.62</b>	<b>34.76</b>	<b>4392</b>	<b>22.96</b>	<b>45.67</b>	<b>5446</b>

\* 1<sup>st</sup> Advance estimates by States.



White grub and emerging threat for groundnut cultivation in Gujarat

**2.2.3** Area under pulses has also gone up by >2 fold from 3084 hectare (Kharif-2015) to 7748 hectare in kharif 2016.



**Large area under pigeon pea**

**2.2.4** Area under inter-cropping of Arhar with Groundnut shows an increasing trend, which is a positive step for minimizing crop losses in the event of drought situations.



**Intercropping of arhar with goundnut**

### **2.3 Prospects for Rabi crops**

Wheat and gram are the major Rabi food crops grown over an area of >1 million ha and about 0.20 million ha respectively in the State. The area coverage under wheat and gram is largely depend on late Kharif rains, which add the water resources and residual moisture in the soil. An area of 1.44 million ha and 0.25 million ha covered under wheat and gram during 2013-14, a good monsoon year, was declined to 1.15 million ha under wheat and 0.17 million ha under gram during 2014-15, a low monsoon year. Wide spread rain received between 3<sup>rd</sup> to 6<sup>th</sup> October, 2016 will certainly facilitate area expansion under wheat and gram during Rabi 2016-17.



**Heavy rains on 3<sup>rd</sup> October in Rajkot**

An input dealer during the visit informed that out of 50 qtl. certified seeds of GM-2 and GM-3 of gram stocked by him, 20 qtl. has already been picked up by the farmers and demand for gram seeds is growing up.



**Availability of gram seed with the input dealer**

### **3. Implementation of NMOOP**

- 3.1** The progress of implementation of NMOOP was discussed with DAO, Rajkot. A copy of the progress report of NMOOP is at **Annexure-I**, which indicates only an achievement of 26% under seed distribution, 66% under cluster demonstration and 60% under farmers training. No progress has been made so far under supply of P.P equipment, farm implements, water carrying pipes, pump set and Tarpaulins etc. It was informed that online applications were invited in March, 2016 for implementation of DBT system. For want of Aadhar number, the process of application have been delayed. Matter was discussed at State headquarter and it was informed that allocated amounts under these interventions would be utilized both at District and State level.
- 3.2** Non-availability of seeds of <15 year old variety was the major reason for slow progress under seed distribution and cluster demonstration in district Rajkot. Discussion with the officers of GSSC indicates good progress of seed production undertaken over an area of about 100 hectare for groundnut (about 60 ha),

sesame (9 ha) and castor hybrid (> 20 ha) in Rajkot districts (**Annexure-II**) with <15 year olds varieties / hybrids. A seed processing unit of GSSC was also covered during the visit, the plant has a capacity to process >20,000 qtl. certified seed of groundnut in a year. Certified seed of 180 qtl. of gram was available at this plant for sowing during Rabi-2016-17. Currently, cumin seed was under process.



**Visit to seed processing plant of GSSC in Rajkot**

- 3.3** Supply of gypsum and micro-nutrients could not be made by Gujarat Agro Industries Corporation in the district mainly because of high cost of transport charges.
- 3.4** One demonstration plot of Sh. Ravendra Bhai Limbasia S/o Sh. Ramji Bhai Limbasia in village Khizaria was covered during the field visit. The farmer was very happy with the crop condition and supply of input comprising 150 kg pods of GG-22, 90% Wettable Sulphur (30kg), Azotobactor (1 ltr.) PSB (1 ltr.) at a total cost of Rs. 6300/- after deduction of subsidy of Rs.7500/-. The crop condition was excellent except minor infestation of white grub. He was expecting an yield of 25 qtl. per ha.
- 3.5** Expenditure of Rs. 43.26 lakh as on 30<sup>th</sup> September, 2016 as against the allocation of Rs. 268.86 lakh (16 %) and nil/low achievements under many interventions indicates a weak progress and monitoring of the programme in the district. Weak staff strength may be the major factor attributing to slow progress of NMOOP in the district.

State level physical and financial progress is at **Annexure-III**. A detailed statement containing unspent balances, component wise release and expenditure is at **Annexure-IV**. An unspent balance of Rs.9.96 crores was available as on 1<sup>st</sup> April, 2016 with the State. A sum of Rs. 23.34 crores has been released during 2016-17. Thus, total Gol share of 33.30 crores is available with the State, out of which an expenditure of Rs. 7.42 crores has already been incurred up to 30<sup>th</sup> September, 2016 including payment of last year expenditure. The state level review made on 5<sup>th</sup> October, 2016 with DA, Gujarat and Officers

of other Line Department including GSSC indicates an estimated expenditure of Rs. 35.56 crores (Central share) as against the availability of Rs. 33.33 crores. The component wise summary is given below:

*(Rs. in lakhs)*

Component	Approved allocation	% utilization	Estimated expenditure
Seed	1937.80	85	1647.13
Transfer of Technology	1615.09	85	1372.83
Input supply	2907.11	100	2907.11
Total	6460.00	-	5927.07
<b>Central share (60%)</b>			3556.24
<b>Liabilities of last year</b>			283.00
<b>Total estimated expenditure</b>			<b>3839.24</b>
Total available funds (central share)			3330.00
Balance release			509.24

Thus, balance amount of Rs. 5.00 crores may be considered for release for the State.

#### 4. Progress of cluster demonstration and Seed hubs through KVK

An excellent infrastructure is available at KVK, Targhadiya. However, out of total sanctioned strength of 16 staff only 08 comprising one Scientist each representing Programme Coordinator (PC), Home Science and Animal Science and other staff (05) are filled up. Despite weak staff strength, cluster demonstration of groundnut (20 ha) and sesame (20 ha) have been organized by KVK. List of demonstration is at **Annexure-V**. Out of these demonstrations 03 plots of Sh. Babu Bhai, Sh. Ashvin Bhai and Sh. Jayesh Bhai in village Khorana were covered during the visit. PC, KVK showed his inability to supply full PoP due to non-availability of funds. He could arrange to supply inputs at a cost of Rs. 500 per ha for groundnut and sesame. In addition, to cluster demonstration, foundation seed production of groundnut (about 9 ha), sesame about (2 ha) and black gram about (3 ha) have also been organized. Under Seed Hub programme KVK has organized certified seed production (150 quintals) programme of vaishali variety of Arhar under of NFSM and received an advance of Rs. 35.00 lakhs.

#### 5. Seed Production programme of Central Agency

An excellent seed plot of GJG-31 variety of groundnut organized by HIL over an area of 3 acre with an expected production of foundation seed of more than 30 quintal was visited in village Malyasan. The dealer-cum-farmer of HIL is a progressive farmer. Excellent farming practices on cultivation of inter-cropping of arhar with groundnut, comparison of old and new varieties of groundnut, sweet corn, sugar beet, brinjal, tomato, control measures for wild bore / blue bull have been demonstrated in a single location. This would be an ideal location for organizing field day/exposure visit for farmers and also extension workers. This activity could be organized under ATMA.

Seed producing farmers of HIL and KVK Scientist may be considered as resource persons. This activity should be organized within a fortnight.



FS of variety GJG-31 by HIL



Farmer plot of GG-20 and gravel soil



A sweet corn plot with local techniques for control of wild bore

## 6. Arrival and Price Situation

The arrival and price situations of oilseeds and pulses was reviewed with Sh. B.R. Tejani, Secretary, APMC Rajkot (09879567440). It was noted that e-NAM centres already been set up in APMC, Rajkot. However, operationalization will take some more times. Details of arrivals and average price of major agricultural commodities traded in APMCs during last 03 years i.e. 2013-14, a good monsoon year and 2014-15/2015-16 to adverse years collected from APMCs are reviewed as under in **Table - 3:**



**Table-3: Arrival price trend of major Kharif crops/ commodities in APMC Rajkot**

Commodity	Month	Kharif 2013		Kharif –2014		Kharif –2015		Kharif –2016 (04.10.2016)	
		Arr.	Price	Arr.	Price	Arr.	Price	Arr.	Price
Groundnut	Oct	52045	<b>3155</b>	33625	<b>3455</b>	88380	<b>3900</b>	2550	4834
	Nov	81200	<b>3330</b>	50760	<b>3505</b>	85500	<b>3935</b>		
	Dec	101750	<b>3285</b>	67485	<b>3610</b>	87680	4290		
	MSP (Rs. /qtl.)		4000		4000		4030		4120
Sesame	Oct	33951	11190	23624	10425	24710	6740	480	6213
	Nov	12960	14695	39850	10025	25100	6675		
	Dec	6890	13725	14014	9875	20060	5885		
	MSP (Rs. /qtl.)		4500		4600		4700		4800
Green gram	Oct	4851	4970	9268	6425	8730	7750	311	4688
	Nov	3515	5160	10832	7175	9408	6880		
	Dec	3973	5330	4985	7015	6300	6680		
	MSP (Rs. /qtl.)		4500		4600		4650		4800
Black gram	Oct	7507	<b>3730</b>	18775	4205	14640	10070	3500	6450
	Nov	3734	<b>3745</b>	12856	4995	20085	9825		
	Dec	5137	<b>3740</b>	8413	5350	9965	9670		
	MSP (Rs. /qtl.)		4300		4350		4425		4575
Cotton	Oct	129370	5115	54770	3985	73275	4240	900	5425
	Nov	153050	4780	86426	4000	97360	4265		
	Dec	130900	4820	104350	4115	133050	4540		
	MSP (Rs. /qtl.)		3700		3750		3800		3860

**Source: APMC, Rajkot / www.apmcrajkot.com**



**Fresh arrivals of groundnut in APMC, Rajkot**

It is evident from the above statement that the price of green gram, black gram and sesame invariably remain higher than MSP, whereas, price of groundnut always remained lower than MSP. The arrivals of groundnut, green gram and black gram have already started and price of these commodities is likely to fall below MSP in view of higher coverage and good production prospects. Therefore, the State Government and NAFED may be requested for making necessary arrangements for procurement of these commodities

## **7. Actionable points**

On return from field visit, a wrap-up meeting was held on 5<sup>th</sup> October, 2016 and Director Agriculture, Government of Gujarat and Officers of concerned Line Departments like GSSC and GUJCOMASOL were briefed about the observations emerged during the field visit. The action points emerged during the wrap-up meeting are listed as under:

- 7.1** The price of groundnut and green gram is likely to fall below the MSP. Therefore, necessary steps may be taken to ensure procurements of green gram and groundnut at MSP. **(Action – DAC & FW and SDA, Gujarat)**
- 7.2** The State headquarter of NMOOP / NFSM will expedite the pending sanctions for supply of P.P equipment, farm implements , water carrying pipes, pump set and Tarpaulins etc. and committed financial liabilities will be worked out for the State as a whole under NMOOP & NFSM. **(Action – SDA, Gujarat)**
- 7.3** State will work out the liabilities and release the funds to GSSC under seed production and distribution programme and organized under NMOOP & NFSM. **(Action – SDA, Gujarat)**

- 7.4 The pending liabilities of about Rs. 2.83 crores may also be firmed up and thereafter a proposal for balance release will be submitted to DAC & FW by State Headquarter immediately. **(Action – SDA, Gujarat)**
- 7.5 Due to non- availability of seeds of varieties/hybrids, which are in demand in the state, the Central Seed Agencies are unable to supply seed minikits of oilseed crops like groundnut and castor. Therefore, the request of State Government, if any may be examined by DAC & FW for supply of seed minikits through State Seed Corporation. **(Action – DAC & FW and SDA, Gujarat)**
- 7.6 A field day programme may be organized at groundnut seed plot of HIL in village Malyasan, where, excellent farming practices on cultivation of inter-cropping of arhar with groundnut, comparison of old and new varieties of groundnut, sweet corn, sugar beet, brinjal, tomato control measures for wild bore / blue bull are available. This activity could be organized under ATMA and seed producing farmers of HIL, KVKs Scientist may be considered as resource persons. This activity should be organized within a fortnight. **(Action – SDA, Gujarat)**
- 7.7 Lack of staff both at State/District headquarter and KVK was observed as a major factor attributing to slow progress and monitoring of CSS. Steps may be taken to fill up the vacant position and also for engaging contractual staff under NFSM/ NMOOP at State/District level including KVK, Rajkot level for strengthening the implementation and monitoring of national priority programme like NFSM/ NMOOP. The allocation of 1% under contingencies may be enhanced to 5% to facilitate the State to engage contractual staff both at State/District level. **(Action – DAC & FW and GAU, Junagarh)**
- 7.8 Battery operated electric fencing for crop protection against wild bore and blue bulls may be considered under flexi funds. **(Action – DAC & FW and SDA, Gujarat)**
- 7.9 Pending proposal of the State Government with an outlay of Rs. 40.14 lakhs **(Annexure-VI)** may be considered and decision taken in the matter may be intimated to the State Government. **(Action – DAC & FW)**

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