

Achievements (1st January 2020 – 31st December 2020)

Quality Assurance -Team Strength- 14 Members)

Organised the following

a) Field Monitoring

Field Monitoring in 7630 Ac in Paddy, Maize, Okra, Tomato and Chilli in “TEL, AP, CG, MAH, & GUJ States”. This year in addition to routine data like isolation , OT % age in production plots etc. , area measurement of 25 % of visited field was also done. Due to Covid-19 pandemic, field monitoring during flowering was not that much effective.

b) Seed Testing

Germination Test	:	59,841 samples
Vigour Test	:	20,378 samples
Vegetable GOT	:	5,276 lots
Field Crop GOT	:	9,661 lots
Foundation Seed	:	331 lots
Total no of Tests	:	95,487
Moisture Meter Calibration:		107 units

c) Biotech GOT Testing of Hybrid Paddy

Organised Biotech GOT testing of 5868 Hybrid Paddy lots. Till last year we used to test only Paddy hybrids “VNR-2111, Supreme, & Virat” for Punjab & Haryana Market and “A09” for export (approximately 400+ lots). This year we tested 5868 lots (almost 75 % total arrived lots (i.e. 7767 lots), that is equivalent to 8736 MT (89.65 % of total arrived qty i.e. 9744 MT).

For this, in addition to testing at Deorjhal lab and R&D support, lots were also tested at three outsourced labs in Hyderabad & Bengaluru. Out of 5868 lots, 3400 lots (57.9 %) were tested at Deorjhal and remaining 2468 lots (42.1%) were tested in outsourced labs.

Overall if we look into the correlation between field GOT result and Biotech GOT results, I can say we failed in “2233, A-09, and in some lots in Laxmi plus” because of poor preparation and marker issue, but we were able to identify substandard qty in remaining hybrids which otherwise would have created problems in Mini Bhog, 2111, 2377, Laxmi Plus, 2228, Virat, 14866 etc. and some new hybrids.

Hybrid wise, lot wise testing details are given below.

Hybrid	Tested		OK		Substandard	
	No	Qty	No	Qty	No	Qty
2111	1,075	12,96,331	868	11,20,289	207	1,76,042
2355 Plus	1,149	17,98,667	1,116	17,39,624	33	59,043
27P09(A09)	1,268	13,32,985	1,073	11,37,391	195	1,95,594
2233	744	14,16,009	739	14,11,886	5	4,123
2245	553	11,70,996	534	11,40,416	19	30,580
Mini Bhog	311	2,95,378	29	23,816	282	2,71,562
2377	287	6,19,425	175	4,30,285	112	1,89,140
Laxmi Plus	249	4,25,898	206	3,46,103	43	79,795
2228	126	2,03,439	108	1,71,551	18	31,888
Virat	64	1,20,432	58	1,13,215	6	7,217
14866	25	30,006	12	17,533	13	12,473
2318	7	19,970	6	17,928	1	2,042
2120	3	2,118	-	-	3	2,118
2355 Plus N	3	3,618	3	3,618	-	-
Laxmi Plus N	3	1,107	1	393	2	714
15126	1	158	-	-	1	158
Total	5,868	87,36,537	4,928	76,74,048	940	10,62,489

d) Field GOT

Out of which 169 Ac GOT area in 2020, 106 Ac (63 %) was conducted in Farmers field which resulted in saving of lacks of Rupees.

To help in proper identification of Products and their parents and to improve accuracy, collected and compiled all related photographs of product from GOT fields and their parents from Seed Production fields and recorded unique morphological characters.

e) Seed Quality Upgradation

As we are maintaining high standards of Germination & Genetic Purity, Poor vigour & Substandard lots were discarded earlier. Judicious Blending of these lots with fresh lots resulted in Utilisation of these

quantities without any complaint, which otherwise would have been rejected or created problems if sold individually and ultimately saving lot of money.

Bigger lots help in increased efficiency in plant operations, reduced number of lots and easy inventory management (details given below).

Proper Testing, Blending/merging and grading of Carry over stock in Paddy, Maize & Bajra hybrids helped in maximum utilisation of carry over stock without any significant germination complaint.

This year seed of approximately 5 crore value was upgraded which otherwise would have been discarded (details given below).

S.No.	Crop	Qty blended @ 5 %	Germination upgradation	Genetic Purity upgradation	Approximate Value @ procurement rate(Rs)
1	Ash Gourd	1	1	98	99,450
2	Bhindi	2	30,017	5,226	29,95,693
3	Bitter Gourd	29	503	6,017	1,17,36,702
4	Bottle Gourd	8	4	3,481	20,90,610
5	Brinjal	2	40	702	7,42,050
6	Capsicum	-	3	-	11,200
7	Chilli	3	95	585	40,79,040
8	Cluster Bean	-	38	-	3,750
9	Cow Pea	-	124	-	18,600
10	Cucumber	3	2	22	59,550
11	Dolichos	-	20	-	2,000
12	Pumpkin	3	120	1,360	14,80,170
13	Ridge Gourd	2	-	39	38,500
14	Sponge Gourd	5	95	2,665	16,55,970
15	Tinda	-	-	363	2,72,513
16	Tomato	1	30	248	22,28,000
17	Paddy	-	34,587	2,83,378	2,38,47,355
Total		56	65,679	3,04,184	5,13,61,153

f) Seed Technology

Standardised dormancy breaking treatment in Papaya. Now we are able to pack, dispatch and sell Papaya seed immediately after dormancy breaking treatment without any germination problem.

Standardised Seed Pelleting recipe in Brinjal (Solanum melongena). Final trial to be conducted in Solanum torvum seed. Waiting for new machine as Seed pelleting in Solanum torvum is not possible in existing machine.

Standardised seed fortification treatment in Chilli and Brinjal that can enhance vigour.

g) Support to Other departments

Moisture meters from Production, FS, and PD functions were calibrated as per requirement.

Seedlings of poor germination and vigour seeds from Vegetable R&D team (Brinjal, Chilli, Bitter Gourd etc) were grown and supplied to them which were very critical.

h) Training to 4th Year Agri /biotech graduates

Total 10 students were trained in QA (4), Biotech lab testing (3), FS production (2) and HSP(1). After basic knowledge sharing at Deorjhal, students were shifted to their respective department and location and attached with experienced manpower. They were given stipend @ Rs. 8000/month.

External Vegetable Seed Production -Team Strength- 10 Members)

Pollen testing: Sensitised and initiated proper pollen testing of cryopreserved pollen before dispatch to production location. It resulted in zero compensation in production year 2020-21. Earlier we were not only paying compensation but also getting less production because of poor pollen quality.

Introduced and successfully produced targeted quantities in Dolichos crop in Bayad and Deulgaon Raja location. Team was explained in the first meeting about quality problems in Dolichos.

Production activity at "Kurnool and Rannebennur production location" was temporarily closed, as quality and cost of seed produced was not upto the mark.