

Proposal for

Creation of Seed-Hubs for Enhancing Quality Seeds Availability of Major Oilseed Crops

Introduction

The primary source of vegetable oils from nine oilseed crops viz., groundnut, rapeseed-mustard, soybean, sesame, niger, safflower, castor and linseed are not able to meet even 50% of the demand and there is greater urgency to increase domestic vegetable oil production. Seed is a major contributor in production components and is a prime mover that drives the utilization and efficiency of all other production factors in any given production environment. Timely availability of sufficient quantity of quality seed is one of the major constraints limiting oilseed production in India. The low seed and varietal replacement rates of the large volume oilseed crops like groundnut and soybean with sole contribution of public sector institutions due to the availability of only varieties is the key issue. Among crops with hybrids, the demand for the new hybrids are not met despite limited contribution from private institutions due to the complexity and technical challenges in hybrid seed production especially of cross pollinated crops like mustard, sunflower and castor. Crops like mustard, safflower and linseed are specific season/soil type bound while the area under other oilseed crops depends on the competing crops profitability due to their low productivity. Further, oilseeds due to their resilience, are effective for facing the contingency situations of failure of major crops and at times of the necessity for effective tide over of contingency, the needed seed of oilseeds will always be in shortage and thus a golden opportunity would be lost. The oilseed production can be increased about 20-25% from the existing production simply by replacing the quality seeds of latest released varieties/hybrids. The major challenge is in providing adequate quantity of quality seed. With this background, it is proposed for creation of Seed-Hubs as priority for producing sufficient quantity of quality seeds of improved varieties/hybrids and support in maintaining reasonable seed buffer stock with proper rolling plan (**Annexure I**). For augmenting the availability of quality seeds of oilseeds, it is proposed to create 31 seed-hubs, at selected SAUs (KVK/AICRPs) and Institutes of ICAR.

Operational procedure: The identified centers will take up seed production programme on groundnut, soybean, rapeseed-mustard, castor, sesame, sunflower and safflower at their farms and in identified centers or at farmers' fields in a participatory mode. The operational expenses will be met from a revolving fund. It is targeted that each seed-hub will be able to produce and supply targeted quantity of specific seed of improved variety/hybrid every year. Financial assistance to these seed-hubs will be as follows:

- Revolving fund will be provided to each seed hub. The revolving fund will be kept in a separate bank account and this fund will be recouped from sale of seed proceeds and to be reimbursed in tune with the progress and recuperation of funds.

- For needed supporting infrastructure, each seed hub will be provided as a one-time grant up to **Rs.50 lakhs** for creating seed processing, storage and seed production related infrastructure.
- As the season of 2017-18 is almost over, except for castor at IIOR and few proposed *rabi* soybean centres, that has potential to take up the programme, all other crops/centres will take up the project from 2018-19.

Note:

1. Only essential seed processing plant and seed storage/godown facility is proposed to cater to this project.
2. Specifications for processing plant and seed storage has been given as **Annexure II** common to each seed hub.

Coordinating Cell: Total 35 Seed-Hubs are proposed across oilseed crops under the proposed project to produce 60,825q quality seeds of major oilseeds in 2 years and create solid base material and strengthening seed chain towards achieving higher SRR and VRR in oilseeds. For effective coordination and monitoring of the programme being implemented across crops, regions, centres, seasons, the requirement of Coordinating Cell at ICAR-IIOR is essential so that monitoring, reporting (financial and physical) and effective liaising with all partners including DAC&FW, Directorate of Oilseeds Development, ATARIs, ICAR Headquarter, State Agricultural Universities, etc. It is proposed One Senior Research Fellow, two Skilled Workers and One Consultant for effective and efficient implementation of the project at ICAR-IIOR (**Annexure III**).

Dr. A. Vishnuvardhan Reddy, Director, IIOR will be the Nodal Officer. Dr S.N. Sudhakara Babu, Head, Seed Section, and Dr D. Pati, Technical Information Officer, IIOR, Dr T. Radhakrishnan, Director, DGR, Junagadh, Dr V.S. Bhatia, Director, IISR, Indore, Dr P.K. Rai, Director I/C, DRMR, Bharatpur, will be Co-Nodal Officers responsible for implementation of the programme including fund utilization of their respective Institute's mandate crops being operated through the identified centres.

Guidelines for operating Revolving Funds

- A separate bank account shall be opened by the implementing agency for each seed hub.
- The expenditure may be met from Revolving Fund for operational production and marketing costs of seed, hiring of vehicles and POL, maintenance and repair of equipment, purchase of inputs, irrigation facilities, purchase of store items, labour charges, contractual skilled manpower (for seed production, processing and other work) and other miscellaneous costs essential for production, procurement, processing, etc).

- The implementing agency shall ensure that revenue generated from the sale of seeds as well as other by-products/value additions/residues etc. is ploughed back to the revolving fund account every year and it should be utilized for production, procurement and supply of seed continually.

Expected outcome

- It is expected that with the enhanced availability of quality seed, the targeted SRR of 30% will be achieved which will be important for achieving self-sufficiency in oilseeds production.
- The availability of quality seed will enhance the input use efficiency as in absence of quality seed, the investment on fertilizers, water, weedicides, pesticides and other input will not pay the desired dividends.
- Higher cropping intensity thus will improve land use efficiency, return and sustainable production system can be achieved through execution of proposed project.
- Groundnut and soybean oilseeds being pulses are also important for sustaining soil health to contribute in sustaining the agriculture production system and helpful in diversification of cereal based cropping systems.
- The production would provide backup for effective implementation of contingency plan through crop diversification with resilient oilseeds.
- The overall project implementation would also contribute to significant skill and entrepreneurship development on specialized seed production activities of oilseeds that would encourage village level seed sufficiency and attract FPOs and private institutions to undertake seed production.

**Name and Signature of
the Nodal Officer**

(A. VISHNUVARDHAN REDDY)
Director, IIOR

GROUNDNUT

Table 1: Targets of quality seed production of groundnut by each seed-hub during 2018-19 to 2019-20

State	Name of the centre	District	Varieties	Supplier of initial breeder seed with address	Quantity of seed production (q)			Breeder seed requirement (q)			
					2018-19	2019-20	Total	2018-19	2019-20	Total	
Rajasthan	SKNAU, Durgapura	Jaipur	Rajmungfali-1	Dr. Ranvir Singh, Addl. Director (Seeds) RARI, SKNAU, DurgapuraJaipur-302018	50	100	150	5	10	15	
			Rajmungfali-3		200	400	600	25	40	65	
			TOTAL		250	500	750	30	50	80	
	SKRAU, Bikaner	Bikaner	HNG-123	Dr. M.M. Sharma, Professor (PBG), ARS, SKRAU, Bikaner-334006	200	500	700	20	50	70	
				Mallika	-do-	50	50	100	5	5	10
				HNG-69	-do-	50	100	150	5	10	15
				TOTAL		300	650	950	30	65	95
Agriculture University, Jodhpur	Jodhpur, Nagore, Jalore, Pali	Girnar-2	Dr BR Choudhary Dir. of Res. Agrl. Univ. Jodhpur-342304	300	450	750	40	50	90		
			TOTAL	300	450	750	40	50	90		
Tamil Nadu	ARS, Vridhachalam (TNAU, Coimbatore)	Cuddalore, Ariyalur, Villupuram, Coimbatore, Erode, Vellore	ALG 06-320	Dr P Selvaraj Special Officer (Seeds), Seed Centre, TNAU, Coimbatore-641003	300	400	700	12	16	28	
				VRI-Gn 7	-do-	200	300	500	8	12	20
				VRI Gn 8	-do-	200	300	500	8	12	20
				ICGV 00348	-do-	100	250	350	4	10	14

			TOTAL		800	1250	2050	32	50	82
Andhra Pradesh	RARS, Tirupati (ANGRAU, Guntur)	Chittoor, Kurnool	Dharani	Dr. R.P. Vasanthi, Groundnut Breeder, RARS, Tirupati-517502	1900	2600	4500	120	155	275
			Greeshma		50	200	250	2	10	12
			Rohini		25	100	125	2	10	12
			Bheema		25	100	125	1	10	11
			TOTAL		2000	3000	5000	125	185	310
Telangana	RARS, Palem (PJ TSAU, Hyderabad)	Nagarkurnool, Wanaparthy, Gadwal, Warrangal, Karimnagar	Kadiri-9	Dr MV Nagesh Kumar Director Seeds SR & TC, PJ TSAU, Hyderabad	600	600	1200	60	60	120
			Kadiri Harithandhra	-do-	400	400	800	40	40	80
			TOTAL		1000	1000	2000	100	100	200
Odisha	OUA&T, Bhubaneswar	Sambalpur, Bargarh, Dhenkanal, Cuttack	Devi#	Pro.KK Rout Director, PI&M, OUAT, Bhubaneswar-751003	600	600	1200	60	60	120
			Kadiri-9	-do-	200	200	400	20	20	40
			TOTAL		800	800	1600	80	80	160
Karnataka	UAS Dharwad		GPBD-5	-do-	200	400	600	20	40	60
			GPBD 4*	-do-	350	800	1150	50	90	140
			G2-52	-do-	350	800	1150	50	90	140
			TOTAL		900	2000	2900	120	220	340
	UAS Bengaluru	Pavgada Tumkuru	Kadiri-6**	Dr. K. Madhusudan, Special Officer (Seeds), GKVK Campus, Bengaluru-560065	250	300	550	30	40	70
			KCG 6	-do-	500	650	1150	60	75	135
			GKVK 5	-do-	250	350	600	30	40	70
		ICGV 91114**	-do-	100	150	250	15	20	35	

			Total		1100	1450	2550	135	175	310
			Grand TOTAL		7450	11100	18550	692	975	1667

Devi is a very popular variety with high demand in the state. Hence its inclusion as a variety in the seed hub is essential.

*GPBD 4 is a very popular variety with high demand in the state both for its high yield and resistance to foliar diseases which are predominant in the state. Hence its inclusion as a variety in the seed hub is essential.

**Kadiri-6 and ICGV 91114 are drought tolerant varieties which are suitable for southern Karnataka region and they are already in demand in the state

Table 2: Budget requirement for each seed-hubs for groundnut

(Rs. in Lakh)

SI No	State	Name of the centre	District	Seed Production targets (q)			Inf. funds	Revolving funds
				2018-19	2019-20	Total	2018-19	2018-19 to 2019-20
1	Rajasthan	SKNAU, Durgapura	Jaipur	250	500	750	50	100
2		SKRAU, Bikaner	Bikaner	300	650	950	50	100
3		Agriculture University Jodhpur	Jodhpur, Nagore, Jalore, Pali	300	450	750	50	100
4	Tamil Nadu	TNAU, Coimbatore (5 centres)	Cuddalore, Ariyalur, Villupuram, Coimbatore, Erode, Vellore	800	1250	2050	50	100
5	Andhra Pradesh	ANGRAU, Guntur	Chittoor, Kurnool	2000	3000	5000	50	100
6	Telangana	PJTSAU, Hyderabad	Nagarkurnool, Wanaparthy, Gadwal, Warrangal, Karimnagar	1000	1000	2000	50	100
7	Karnataka	UAS - Dharwad	Seed Officer, UAS, Dharwad	900	2000	2900	50	100
8		UAS- Bengaluru	Pavagada, Tumkur	1100	1450	2550	50	100
9	Odisha	OUA&T, Bhubaneswar	Sambalpur, Bargarh, Dhenkanal, Cuttack	800	800	1600	50	100
		Grand Total		7450	11100	18550	450	900

SOYBEAN

Table 3: Targets of quality seed production of soybean by each seed-hub during 2018-19 to 2019-20

State	Name of the centre	District	Varieties	Supplier of initial breeder seed with address	Quantity of seed production (q)			Breeder seed requirement (q)		
					2018-19	2019-20	Total	2018-19	2019-20	Total
Chhattisgarh	AICRP Soybean, IGKVV, Raipur	Raipur	JS-97-52	IGKV, Raipur	300	250	550	12	10	22
			CG Soya-1	-do-	250	500	750	20	30	50
			JS 93-05*	-do-	500	750	1250	20	30	50
			Total		1050	1500	2550	52	70	122
Maharashtra	AICRP Soybean, MAU, Parbhani	Parbhani	MAUS-158	VNMKV, Parbhani	350	500	850	14	20	34
			JS 20-29	-do-	350	250	600	14	10	24
			MAUS-162	-do-	250	500	750	10	20	30
			MAUS-612	-do-	250	250	500	10	10	20
			Total		1200	1500	2700	48	60	108
Madhya Pradesh	AICRP Soybean RVSKVV, Gwalior	Sehore	JS-93-05*	RVSKVV, Gwalior	275	150	425	11	6	17
			RVS-2001-4	-do-	25	0	25	1	0	1
			RVS 2002-4	-do-	100	100	200	4	4	8
			RVS-18	-do-	100	100	200	4	4	8
			JS 20-29	-do-	200	500	700	8	20	28
			JS 20-34	-do-	100	500	600	4	20	24
			JS 95-60	-do-	250	150	400	10	6	16
			Total		1050	1500	2550	42	60	102
	ICAR-IISR, Indore	Indore	JS 20-29	ICAR-IISR, Indore	400	750	1150	16	30	46

			JS 20-34	-do-	100	250	350	4	10	14
			JS 20-69	-do-	400	400	800	16	16	32
			NRC-86	-do-	100	100	200	4	4	8
			Total		1000	1500	2500	40	60	100
Rajasthan	MAF, AU, Kota	Kota	JS-20-29	ICAR-IISR, Indore	150	350	500	6	10	16
			RKS-45	MAF, AU, Kota	400	900	1300	16	20	36
			RKS-24	-do-	400	900	1300	16	20	36
			JS 20-34	ICAR-IISR, Indore	100	350	450	4	10	14
			Total		1050	2500	3550	42	60	102
Telangana	AICRP Soybean, (ARS, Adilabad) PJ TSAU	Adilabad	JS 93-05*	ICAR-IISR, Indore	200	300	500	8	12	20
			JS-335*	-do-	300	450	750	12	18	30
			Basara	AICRP Soybean, Adilabad	500	750	1250	20	30	50
			Total		1000	1500	2500	40	60	100
Karnataka	UAS, Raichur	Raichur	JS 335*	ICAR-IISR, Indore	500	750	1250	20	30	50
			DSb 21	UAS, Raichur	500	750	1250	20	30	50
			Total		1000	1500	2500	40	60	100
			Grand Total		7350	11500	18850	304	430	734

* JS 335 and JS 9305 are very popular and well established among the farmers of these areas. In Telangana and Karnataka varietal diversity is narrow and newly released varieties are being popularized. Presently, quality seeds of these varieties (JS 335 and JS 93-05) are in high demand. Therefore, seed production of these varieties will be justified under Seed Hub.

Table 4: Budget requirement for each seed-hub on soybean for two years (2018-19 to 2019-20)

(Rs. in Lakh)

SI No	State	Name of the centre	District	Quantity of seed production (q)			Inf. funds	Revolving funds
				2018-19	2019-20	Total	2018-19	2018-19 to 2019-20
1	Telangana	AICRP Soybean, (ARS, Adilabad), PJTSAU, Hyderabad	Adilabad	1,000	1,500	2500	50	100
2	Chhattisgarh	AICRP Soybean, IGKVV, Raipur	Raipur	1,050	1,500	2550	50	100
3	Karnataka	UAS, Raichur	Raichur	1,000	1,500	2500	50	100
4	Maharashtra	AICRP Soybean, VNMKV, Parbhani	Parbhani	1,200	1,500	2700	50	100
5	Madhya Pradesh	KVK, Khandwa, RVSKVV, Gwalior	Gwalior	1,050	1,500	2550	50	100
6		ICAR-IISR, Indore	Indore	1,000	1,500	2500	50	100
7	Rajasthan	MAF, AU, Kota	Kota	1,050	2,500	3550	50	100
			Total	7,350	11,500	18850	350	700

RAPESEED & MUSTARD

Table 5: Targets of quality seed production of Rapeseed – Mustard by each seed-hub during 2018-19 to 2019-20

Sl No	State	Name of the centre	District	Name of variety	Supplier of initial breeder seed with address	Quantity of seed production (q)			Breeder seed requirement (q)		
						2018-19	2019-20	Total	2018-19	2019-20	Total
1	Assom	KVK, Kamrup, Kahikuchi (AAU, Jorhat)	Kamrup	NRCHB- 101	DRMR, Bharatpur	200	350	550	0.13	0.22	0.35
				NRCYS 05-02	DRMR, Bharatpur	75	100	175	0.05	0.06	0.11
				YSH- 401	CCSHAU, Hisar	125	150	275	0.08	0.10	0.18
				Pitambari	GBPAU&T, Pantnagar	100	150	250	0.06	0.10	0.16
				TOTAL		500	750	1250	0.32	0.48	0.8
2	Haryana	RRS, Bawal CCSHAU, Hisar	Bawal	RH-406	CCSHAU, Hisar	125	200	325	0.08	0.13	0.21
				RH-749	CCSHAU, Hisar	125	200	325	0.08	0.13	0.21
				Pusa Mustard- 25	IARI, New Delhi	75	100	175	0.05	0.06	0.11
				NRCDR-02	DRMR, Bharatpur	75	100	175	0.05	0.06	0.11
				NRCHB- 101	DRMR, Bharatpur	100	150	250	0.06	0.10	0.16
				TOTAL		500	750	1250	0.32	0.48	0.8
3	Madhya Pradesh	KVK, Morena (RVSKVV, Gwalior)	Morena	NRCHB- 101	DRMR, Bharatpur	150	250	400	0.10	0.16	0.26
				PM- 27	IARI, New Delhi	75	100	175	0.05	0.06	0.11
				PM-28	IARI, New Delhi	75	100	175	0.05	0.06	0.11
				DRMR IJ 31	DRMR, Bharatpur	200	300	500	0.13	0.19	0.32
				TOTAL		500	750	1250	0.33	0.47	0.8
4	Rajasthan	KVK, Bansur (Alwar II) ICAR-DRMR	Alwar	NRCDR-02	DRMR, Bharatpur	100	150	250	0.06	0.10	0.16
				RH 406	CCSHAU, Hisar	100	150	250	0.06	0.10	0.16
				RTM- 1355	SKNAU, Jobner	75	100	175	0.05	0.06	0.11
				DRMRIJ-31	DRMR, Bharatpur	125	350	475	0.08	0.22	0.3

					TOTAL	400	750	1150	0.25	0.48	0.73
5		KVK, Kota (AU, Kota)	Kota	DRMRIJ-31	DRMR, Bharatpur	150	300	450	0.10	0.19	0.29
				NRCHB- 101	DRMR, Bharatpur	100	250	350	0.06	0.16	0.22
				NRCDR-02	DRMR, Bharatpur	150	200	350	0.10	0.13	0.23
					TOTAL	400	750	1150	0.26	0.48	0.74
6				RGN-298	ARS, SKRAU (Ganganagar)	300	350	650	0.19	0.22	0.41
		KVK, Sriganganagar (SKRAU, Bikaner)	Sriganganagr	DRMRIJ-31	DRMR, Bharatpur	200	250	450	0.13	0.16	0.29
				NRCHB- 101	DRMR, Bharatpur	100	150	250	0.06	0.10	0.16
					TOTAL	600	750	1350	0.38	0.48	0.86
7				NRCHB- 101	DRMR, Bharatpur	100	150	250	0.06	0.10	0.16
				PM-28	IARI, New Delhi	75	100	175	0.05	0.06	0.11
	Uttar Pradesh	KVK, Mirzapur (BHU, Varanasi)	Mirzapur	DRMRIJ-31	DRMR, Bharatpur	150	250	400	0.10	0.16	0.26
				RH-749	CCSHAU, Hisar	125	250	375	0.08	0.16	0.24
					TOTAL	450	750	1200	0.29	0.48	0.77
8				YSH 401	CCSHAU, Hisar	150	250	400	0.10	0.16	0.26
	West Bengal	KVK, BCKV, Gayeshpur,	Nadia	NRCHB 101	DRMR, Bharatpur	200	300	500	0.13	0.19	0.32
				PM-26	IARI, New Delhi	100	200	300	0.06	0.13	0.19
					TOTAL	450	750	1200	0.29	0.48	0.77
					Grand Total	3800	6000	9800	2.44	3.83	6.27

Table 6: Budget requirement for each seed-hub for Rapeseed - Mustard

(Rs. in Lakh)

Sl No	State	Name of the centre	District	Seed Production targets		Inf. funds	Revolving funds
				2018-19	2019-20	2018-19	2018-19 to 2019-20
1	Assom	KVK, Kamrup, Kahikuchi (AAU, Jorhat)	Kamrup	500	750	50	100
2	Haryana	RRS, Bawal CCSHAU, Hisar	Bawal	500	750	50	100
3	Madhya Pradesh	KVK, Morena (RVSKVV, Gwalior)	Morena	500	750	50	100
4	Rajasthan	KVK, Bansur (Alwar II) ICAR-DRMR	Alwar	400	750	50	100
5		KVK, Kota (AU, Kota)	Kota	400	750	50	100
6		KVK, Sriganganagr (SKRAU, Bikaner)	Sriganganagr	600	750	50	100
7	Uttar Pradesh	KVK, Mirzapur (BHU, Varanasi)	Mirzapur	450	750	50	100
8	West Bengal	KVK, BCKV, Gayeshpur		450	750	50	100
		Grand Total		3800	6000	400	800

Castor, Sunflower, Sesame and Safflower:

ICAR-IIOR

Table 7: Targets of quality seed production by each seed-hub during 2018-19 to 2019-20

Sl No	State	Name of the centre	District	Crop	Name of variety/hybrid/parental lines	Supplier of initial breeder seed with address	Quantity of seed production (q)				Breeder seed requirement (q)				
							2018-19	2019-20	Total		2018-19	2019-20	Total		
1	Maharashtra	VNMKV, Parbhani	Parbhani	Sunflower	LSFH-171	ORS, Latur	600	750	1350	A	4.0	5.5	9.5		
											R	1.3	1.5	2.8	
2				Safflower	PBNS-12*	MAU, Parbhani	600	700	1300		4.0	5.0	9.0		
					SSF708	MPKV Solapur	200	300	500		1.5	2.0	3.0		
				Total			1400	1750	3150		10.8	14.0	24.8		
3	Rajasthan	ARS, Sumerpur (AU, Jodhpur)	Pali	Castor	GCH-7*	Main Castor Res station, AICRP, SK Nagar, SDUAT	400	500	900	F	2.5	3.0	5.5		
									M	0.8	1.0	1.8			
4				Sesame	RT-346	AICRP Sesame, Mandor,	200	250	450		3.0	4.0	7.0		
					RT-351		200	250	450		3.0	4.0	7.0		
				Total			800	1000	1800		6.0	8.0	14.0		
5	Tamil Nadu	AICRP, Center, Yethapur	Salem	Castor	YRCH-1 YRCH-2	AICRP Castor centre, Yethapur	400	500	900	F	2.5	3.0	5.5		
									M	0.8	1.0	1.8			
							Total			400	500	900		3.3	4.0
6	Telangana	ICAR-IIOR	Ranga Reddy	Castor	DCH-519*	IIOR, Hyderabad	650	500	1150	F	5.0	3.0	8.0		
									M	1.25	1.0	2.25			
							DCH-177#		650	500	1150	F	5.0	3.0	8.0
												M	1.25	1.00	2.25
				Total			1300	1000	2300		12.50	8.00	20.50		

7				Sunflower	DRSH-1**	IOR, Hyderabad	100	150	250	A	0.50	0.75	1.25
										R	0.20	0.30	0.50
				Total			1400	1150	2550		0.70	1.05	1.75
8	West Bengal	KVK, RKA, Nimpith	South 24- pgns	Sunflower	LSFH-171	ORS, Latur	500	750	1250	A	5.0	7.5	12.0
										R	1.5	2.5	4.0
9				Sesame	CUMS-17	Kolkatta Univ, WB	400	500	900		3.0	4.0	7.0
				Total			900	1250	2150		8.5	14.0	22.5
	Grand Total			Castor			2100	2000	4100		19.10	16.00	35.10
				Sunflower			1200	1650	2850		12.5	18.05	30.55
				Sesame			800	1000	1800		14.5	22.0	36.5
				Safflower			800	1000	1800		5.50	7.0	12.5
			Grand Total				4900	5600	10500		51.60	63.05	114.65

*Though released in 2007, it is still popular

**Though released in 2006, it is still popular

#Though released in 2006, it is a popular hybrid for Haryana, North Rajasthan and parts of MP.

Table 8: Budget requirement for each seed-hub on oilseeds for two years (2018-19 to 2019-20)

(Rs. in Lakh)

State	Name of the centre	District	Crop	Seed Production targets (q)			Inf. funds	Revolving funds	
				2018-19	2019-20	Total	2018-19	2018-19	
Maharashtra	VNMKV, Parbhani	Parbhani	Sunflower	600	750	1350	50		100
			Safflower	800	1000	1800			
Rajasthan	ARS, Sumerpur (AU, Jodhpur)	Pali	Castor	400	500	900	50		100
			Sesame	400	500	900			
Tamil Nadu	AICRP, Castor Center, Yethapur (TNAU, Cbtr)	Salem	Castor	400	500	900	50		100
Telangana	ICAR- IIOR	Ranga Reddy	Castor	1000	1500	2500	50		100
			Sunflower	100	150	250			
West Bengal	KVK, RKA, Nimpith	South 24-PGNS	Sunflower	500	750	1250	50		100
			Sesame	400	500	900			
	Total			4600	6150	10750	250		500

Linseed

Table1 9: Centre wise targets of quality seed production of linseed during 2018-19 to 2019-20 and the budget requirement

State	Name of the centre	District	Varieties	Year of release	Target of quality seed production (q)			Budget requirement (Rs. in Lakh)		
					2018-19	2019-20	Total	Infra structure (2018-19)	Revolving Fund (2018-19 to 2019-20)	Total
Madhya Pradesh	Sagar, JNKV, Jabalpur	Sagar, Beena	JLS 66	2017	200	200	400	50	150	200
			JLS 95	2018	200	200	400			
			Total		400	400	800			
		Balaghat	JLS 79	2016	200	200	400			
			Total		200	200	400			
Bihar	Bikramganj, BAU, Sabour	Rohtas, Kaimoor	Sabour Tisi-1	2018	200	200	400	50	100	150
			RLC-148	2018	200	200	400			
			Total		400	400	800			
Odisha	Keonjhar, OUA&T, Bhubaneshwar	Keonjhar, Mayurbhanj	Arpita	2016	200	200	400	50	100	150
			RLC 143	2018	200	200	400			
			Total		400	400	800			
Grand Total					1400	1400	2800	150	350	500

Table 10: Budget requirement for each seed-hub on Linseed for two years (2018-19 to 2019-20)

(Rs. in Lakh)

State	Name of the centre	District	Seed Production targets (q)			Infras tructure ure (2018 -19)	Revolving Fund (2018-19 to 2019- 20)	Total
			2018-19	2019-20	Total			
Madhya Pradesh	Sagar, JNKV, Jabalpur	Sagar,	200	200	400	50	150	200
			200	200	400			
		Beena	200	200	400			
Bihar	Bikramganj, BAU, Sabour	Rohtas,	200	200	400	50	100	150
		Kaimoor	200	200	400			
Odisha	Keonjhar, OUA&T, Bhubaneswar	Keonjhar,	200	200	400	50	100	150
		Mayurbhanj	200	200	400			
Grand Total			1400	1400	2800	150	350	500

Niger

Table 11: Centre wise targets of quality seed production of Niger during 2018-19 to 2019-20 and the budget requirement

State	Name of The Centre	District	Varieties	Year of release	Quantity of Seed Production (q)			Budget Requirement (Rs lakhs)		
					2018-19	2019-20	Total	Infrastructure (2018-19)	Revolving fund (2018-19 to 2019-20)	Total
Madhya Pradesh	JNKVV, Jabalpur	Chhindwara	JNS-28	2015	10	30	40	20	50	70
		Dindori	JNS-30	2016	10	30	40			
Orissa	OUAT, Bhubaneswar	Koraput	Utkal Niger-150	2009	30	90	120	20	50	70
		Keonjhar								
		Rayegarha								
Karnataka	UAS, Dharwad	Bidar	DNS-4	2014	15	60	75	20	40	60
		Bagalkot								
		Hulkoti								
Total					65	210	275	60	140	200

Table 12: Budget requirement for each seed-hub on Niger for two years (2018-19 to 2019-20)

State	Name of The Centre	District	Quantity of Seed Production (q)			Budget Requirement (Rs)		
			2018-19	2019-20	Total	Infrastructure	Revolving fund	Total
Madhya Pradesh	JNKVV, Jabalpur	Chhindwara	10	30	40	20	50	70
		Dindori	10	30	40			
Orissa	OUAT, Bhubaneswar	Koraput	10	30	40	20	50	70
		Keonjhar	10	30	40			
		Rayegarha	10	30	40			
Karnataka	UAS, Dharwad	Bidar	5	20	25	20	40	60
		Bagalkot	5	20	25			
		Hulkoti	5	20	25			
Total			65	210	275	60	140	200

COMMON FACILITY FOR EACH CENTRE UNDER INFRASTRUCTURE

Specifications for seed processing unit and storage facility

(I) Processing plant

Sl. No.	Items	Capacity In TPH	Total Numbers	Approx. Cost (Rs. In Lakhs)
1	Pre-Cleaners with suitable elevator & Surge bin along with other accessories (like cyclone etc.)	1	1	30-35 Lakhs
2.	Seed Graders (Fine Cleaner) with suitable Elevator & Surge bin along with other accessories (like cyclone etc.)	1	1	
3.	Specific Gravity Separators with suitable Elevator & Surge bin	1	1	
4.	Spiral Separator	1	1	
5.	Bagging and weighing Machine	1	1	
6.	Generator set (150 KVA)	1	1	
7.	Air Compressor (Maximum pressure – 19 kg/cm ² and 2 to 3 HP motor)	250 lbs	1	

(II) Building structure of the seed processing plant

S. No.	Description	Area	Rate/Unit (in Rs.)	Amount (Rs. in lakhs)
1.	Receiving cum drying area	100 m ²	750/m ²	0.75
2.(a)	Plant building for processing machines as per layout	200 m ²	3000/m ²	6.00
(b)	Room for DG set 45 KVA	15 m ²	3000/m ²	0.45
(c)	Room space for office/workshop equipments	25 m ²	3500/m ²	0.45
3.	Seed storage*, 1000 q	100 m ²	4000/m ²	4.00
4.	Approach Road			1.00
6.	Site development like drainage, security etc @ 10% total expenditure given above			2.20
	SUB TOTAL			14.85
	Contingency @ 5%			0.74
	GRAND TOTAL = 15.59 ≈ 16 lakhs (Rs Sixteen lakhs)			

ANNEXURE II

Coordinating Centre
ICAR – Indian Institute of Oilseeds Research
Rajendranagar, Hyderabad 500030

(Rs. in lakhs)

S. No	Items	Number	Rate (Rs.)	2017-18	2018-19	2019-20	Total
1	Contractual Services						
	SRF	1	25000/pm + HRA 30%	3.90	3.90	3.90	11.70
	Project Assistants	2	15000/pm	3.60	3.60	3.60	10.80
	Consultant	1	42000/pm	5.04	5.04	5.04	15.12
2	Travel			3.00	3.00	3.00	9.00
3	Workshop/Training	5/year	36000/workshop	1.80	1.80	1.80	5.40
4	Report writing			0.25	0.25	0.50	1.00
5	Miscellaneous Office equipment/stationery/contingencies			1.50	1.00	1.00	3.50
6.	Institutional/Overhead cost (10%)			1.90	1.86	1.89	5.65
	Grand Total			20.99	20.45	20.73	62.17

Project Summary

Crop	Number of seed hubs	Physical target of quality seed production (q)			Total budget (Rs. in lakhs)
		2018-19	2019-20	Total	
Groundnut	9	7450	11100	18,550	1350
Soybean	7	7350	11500	18,850	1050
Mustard	8	3800	6000	9,800	1200
Castor	1	2100	2000	4100	750
Sunflower	2	1200	1650	2850	
Sesame	1	800	1000	1800	
Safflower	1	800	1000	1800	
Linseed	3	1400	1400	2800	500
Niger	3	65	210	275	200
Total	35	24965	35860	60,825	5050.00
Coordinating unit					41.18
Grand Total	35		60,825		5091.18

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* * *

Proposal for

**Creation of Seed-Hubs for Enhancing Quality Seeds Availability of
Major Oilseed Crops**

Nodal Officer: Dr. A. Vishnuvardhan Reddy, Director, IIOR

Co-Nodal Officer: Dr T. Radhakrishnan, Director, DGR, Junagadh,
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FNo:TIO/11/1-11/17
Date: 09.04.2018

To
Dr.P.K.Chakrabarty
ADG (PP and O& P)
ICAR, Krishi Bhawan
New Delhi- 110001

Sir,

The revised proposal for creation of seed hub on oilseeds inclusive of linseed and niger is attached for further action at your end.

Thanking you,

Yours faithfully

A.Vishnuvardhan Reddy
Director