

**RAJASTHAN AGRICULTURAL RESEARCH INSTITUTE
(SKN AGRICULTURE UNIVERSITY, JOBNER)
DURGAPURA, JAIPUR 302018**

*Proceedings of Kharif 2016 ZREAC meeting of zone IIIa
March 21-22, 2016*

Venue	Conference Hall, Seed Technology Research, RARI, Durgapura- Jaipur
Chairman	Prof. S.J.Singh, Director, Rajasthan Agricultural Research Institute, Durgapura-Jaipur
Co-Chairman	Sh. J. S. Sandhu Joint Director Agriculture (Extension), Jaipur Division, Govt. of Rajasthan, Pant Krishi Bhawan, Jaipur
Special Guest	Prof. Neelam Yadav, Director(Research),SKNAU,Jobner,Jaipur(Raj.)
Convener	Dr.Sudesh Kumar, Professor & I/c, Technical cell , Durgapura-Jaipur
Rapporteurs	Dr. D.K. Pareek, Professor & Head (SS&AC), RARI, Durgapura- Jaipur Dr. K. C. Gupta, Assistant Professor (Agronomy), RARI, Durgapura- Jaipur Dr.Vipin Kumar Assistant Professor (Entomology), RARI, Durgapura- Jaipur Dr.Rani Saxena Assistant Professor (Agromet.), RARI, Durgapura- Jaipur

At the outset Prof. S.J.Singh the Chairman and Director RARI Durgapura ,Jaipur welcomed all the scientists of RARI, Durgapura, Jaipur, ARSSs (Ajmer, Diggi and Kotputli), KVKs (Ajmer, Banasthali, Chomu, Diggi and Kotputli), ATC Tabiji, Ajmer and Government officials engaged in extension activities of zone IIIa. Prof. Singh desired that presentation should be brief and the discussions be healthy with fruitful outcome. Prof. Singh urged all the scientists develop high yielding, disease resistant and short duration varieties suitable under moisture stress and climate change scenario. He emphasized on development of farmers' friendly production and protection technologies for sustainable agriculture production and livelihood security of the farmers of this state..

Then, he invited Dr. Sudesh Kumar convener of the meeting to inform the house about Action Taken Report and progress of research on feed back problems submitted in *Kharif* 2015, ZREAC meeting of Zone IIIa. Dr. Sudesh apprised the house that all the recommendations finalized in the meeting were communicated to the Joint Director

Agriculture (Exten.), Jaipur Division for needful action. Similarly, all the experiments for adaptability testing at ATC, Tabiji, Ajmer were conducted, however, due to low rainfall during crop season the experiment on cowpea and Moongbean were failed and could not be concluded (Annexure-I). Regarding progress of research on feed back problem Dr. Sudesh informed the house that work is in progress for solution of most of the problems (Annexure-I). Regarding solution of die-back problem in *Jamun* and decolouration in *pomegranate* no government officials contacted to concerned scientist for the visit of hot spot. Thus, the house approved the minutes of the last *kharif* ZREAC meeting of Zone IIIa held on 21-22 March, 2015.

The results emanating from the experiments conducted at RARI, Durgapura, Jaipur and adaptability performance at ATC, Tabiji, Ajmer were presented and the following decisions were made.

Crop	Discipline	Details of the results obtained	Scientist presenting the data	Resolution made
Pearl millet	Entomology ATC	Three year pooled data showed that seed treatment with imidacloprid 600 F.S. @ 8.75 ml/kg seed followed by spraying of imidacloprid 17.8 SL @ 0.009 at 35 DAG was found most effective with lowest shoot fly damage (4.05% at vegetative and 2.27% at ear head stages) Similar results were also obtained at ATC, Tabiji, Ajmer	Dr. B.L. Tandi	Recommended for inclusion in POP
Pearl millet	Entomology	Three years pooled data showed that IPM module III (seed treatment with imidacloprid 600 FS @ 8.75 ml/kg seed, fishmeal trap @ 10/ha and spraying of NSKE 5% at earhead stage) was showed lowest shoot fly infestation at vegetative stage (1.95%) and earhead stage (2.74%).	Dr.B.L.Tandi	Recommended to drop the experiment
Pearl millet	Plant Pathology	An experiment was conducted on management of blast disease through different fungicides in the field during, 2014&2015with variety RHB-177 . The observation reveled that minimum intensity of blast was recorded in trifloxystrobin+ tebuconazole (Nativo) 27.21% followed by propiconazole (Tilt) 28.9%. Grain and fodder yield was significantly superior in trifloxystrobin+ tebuconazole (Nativo) <i>i.e</i> 16.05 q/ha and 50.25 q/ha as compared to control <i>i.e</i> 9.90 and 31.25 q/ha.	Dr. A.C. Mathur	Recommended for testing at ATC
Pearl Millet	Agronomy ATC	Results of an experiment on effect of foliar spray of stress chemical on pearl millet conducted at RARI, Durgapura continuously for three years from 2012 to 2014. Pooled analysis of three years data revealed that Foliar spray of 1000ppm thio urea/100 ppmTGA/100ppm Salicylic acid at grain filling stage are found suitable to mitigate the terminal heat stress in pearl millet. Similar results were also obtained at ATC, Tabiji, Ajmer	Dr.Surendra Singh	Recommended for inclusion in POP

Crop	Discipline	Details of the results obtained	Scientist presenting the data	Resolution made
Moongbean	Agronomy	Three year pooled data showed that pre-emergence application of pendamethalin @ 1.0 kg/ha along with post emergence application of imazethapyr @ 40 g/ha at 15 – 20 DAS gave significantly higher seed yield of moongbean (500.4 kg/ha) over weedy check. The lowest mean weed count of 6.0 /m ² and the highest B:C ratio (5.26) were observed under this treatment.	Dr. B.S. Shekhawat	Recommended to repeat the experiment at ATC
	ATC	Yield data of weed management in moongbean is very poor because of low rain fall during crop season.		
Cowpea	Plant breeding	Performance of cowpea variety CPD119 was tested at RARI Durgapura. The trial consists of 16 genotype including three checks RC 19, RC 101 and GC 3. Significant differences were observed for seed yield with CV 10.42% and CD at 5% 196.19 kg/ha. The genotype CPD 119 (1417 kg/ha) followed with CPD 150 (1347 kg/ha) gave significantly superior yield over the best check RC-101 (1146 kg/ha).	Dr.O.P..Khedar	Recommended for submission of proposal to SVRC for release of the variety .
	ATC	Adaptability performance data of cowpea variety CPD 119 at ATC revealed that it gave the highest yield (9.20 q/ha) significantly superior to check varieties.		
Cowpea	ATC	Yield data of rainfed cowpea on effect of foliar application of urea could not be realised because low rain fall during crop season.		Recommended to repeat the experiment at ATC with suitable variety
Cluster bean	Plant Breeding	Performance of cluster bean variety RGr 12-1 was tested at different locations of the state. The results revealed that RGr-12-1 out yielded other varieties. The mean increase in seed yield due to RGr-12-1 was 48.5, 49.7, 30.2, 13.8 and 24.6% over check varieties RGC-936, RGC-986, RGC-1003, RGC-1038, RGC-1033, respectively.	Dr. S.S. Shekhawat	Recommended for submission of proposal to variety evaluation committee of university for release of the variety
		At ATC, Ajmer yield performance of clusterbean variety RGr-12-1 showed that it gave grain yield of 13.93 q/ha with early maturity in 95 days being at par with long duration (110 days) check variety RGC 986 (14.49 q/ha).		
Cluster bean	Soil Science	A field experiment was conducted at RARI, Durgapura-Jaipur in irrigated coarse textured agro ecological situations during kharif 2013, to 2015, the experiment was conducted to study the effect of Phosphorus rich organic manure as an alternative phosphatic fertilizer for sustainable guar production in guar-wheat cropping sequence.. Two years data of wheat equivalent system yield, net return	Dr.D.K.Pareek Dr.P.C.Berwa	Recommended for testing at ATC

Crop	Discipline	Details of the results obtained	Scientist presenting the data	Resolution made
		and B: C ratio revealed that highest system wheat equivalent yield (108.18 & 79.16 q/ha) and net return (Rs 84923 & 68779 /ha) was obtained in treatment T ₈ , which is at par with T ₂ , T ₅ , T ₆ and T ₇ but highest B: C ratio (2.10) was obtained in treatment T ₅ where PROM was applied @2.0t/ha along with recommended dose of NK. Hence treatment T ₅ is recommended for sustainable guar-wheat crop production		
Pigeon pea	Plant Breeding	Nine developed NDT early hybrids were evaluated under State Advance Pigeonpea Hybrid Trial out of which 4 hybrids SJPH-801, SJPH-807, SJPH-804 and SJPH-808 showed more than 30% increase over best check	Dr.S.J.Singh	For the information of the house
Groundnut	Plant Breeding	RG 559-3 (Raj Mungfali 3) identified by Central Varietal Identification Committee which met on 13.4.2015 at ARS, Kadiri (A.P.) under the chairmanship of Dr. B.B. Singh, ADG (O&P), ICAR for the Zone I comprising the states of Rajasthan, Uttar Pradesh and Punjab for <i>kharif</i> . Raj Mungfali 3 (3173 kg/ha) has given higher pod yield over the all zonal check varieties. It is earliest in maturity (125 days), highest shelling turn over (69%), highest 100- Kernel weight (65g) and highest oil content (49%) compare to all the 7 check varieties. For Peanut bud necrosis disease, Late leaf spot and rust diseases Raj Mungfali 3 shown lower incidence. RG 559-3 gave 17.0 % higher pod yield (3173 kg/ha) and 19.3 % higher kernel yield (2346 kg/ha) over the best check CSMG 19 with 2713 kg/ha pod and 1845 kg/ha kernel yield in coordinated trials during <i>kharif</i> 2012 to <i>kharif</i> 2014 in the zone I.	Dr.R.V.Singh	Recommended to included in pop after notification
Groundnut	Agronomy	An experiment was conducted during <i>kharif</i> 2015 and 2016 at RARI, Durgapura, Jaipur to study the effect land configuration and mulching on the productivity of groundnut. Land configuration: Among the land configurations, conventional method produced significantly higher pod yield (5189 and 5393 kg/ha) as compared to other methods of sowing but remained statistically at par with broad bed and furrow method of sowing in terms of pod yield (5139 and 5229 kg/ha), during <i>kharif</i> 2014 and 2015. The B:C ratio of conventional method was the highest (3.17:1). Mulching: In first year the application of biodegradable mulch (polythene mulch 7 micron) produced significantly higher pod yield (5183 and 5388 kg/ha), over organic mulch and without mulch. The B:C Ratio due to mulching treatment remained almost unaffected	Dr.Yogendra Kumar	Recommended for testing at ATC

Crop	Discipline	Details of the results obtained	Scientist presenting the data	Resolution made
Groundnut	Soil science	Two years data of wheat equivalent system yield, net return and B: C ratio revealed that highest system wheat equivalent yield (185.91 & 226.29 q/ha) and net return (Rs 178766 & 254643/ha) was obtained in treatment T ₁₂ , which is significantly higher to T ₁ , T ₂ , T ₃ , T ₄ and T ₇ and at par with T ₅ with the B: C ratio (4.03) and other remaining treatments with higher doses of vermicompost and sulphur but highest B: C ratio (4.09) was obtained in treatment T ₆ where vermicompost and Sulphur was applied @2.0t and 45 kg per hectare along with recommended dose of N P K. Hence treatment T ₅ is recommended for sustainable wheat – ground nut crop production.	Dr.D.K.Pareek Dr.P.C.Berwa	Recommended for testing at ATC
Groundnut	STR	Application of FYM @ 7.5 t/ha + Rec. dose of NPK + critical nutrient viz., iron (FeSO ₄ @ 50 kg/ha and Zn (ZnSO ₄ as per requirement) and foliar application of urea @ 2% at 30 and 60 DAS with gypsum application at pegging stage gave maximum seed yield (pods) of groundnut.	Dr. R.S. Sain	Recommended to repeat the experiment at ATC with split plot design
	ATC	Experiment was not considered due to use of different (RBD) design.		
Groundnut	STR	One hundred twenty seed samples of five cultivars viz. G 10, G-20, RG 382, Rasdar and local were collected from farmers of Jaipur and Sikar districts of Rajasthan. Seed samples were tested for germination and association of seed with <i>Aspergillus niger</i> which is responsible for seed rot by using standard blotter method (ISTA, 1996).It was observed that 105 seed samples showed germination above MSCS level. The percent range of germination was 75-90. Remaining 35 seed samples showed germination below MSCS level. 30 seed samples showed infection of <i>A. niger</i> responsible for seed rot. Maximum seed rot incited by <i>A. niger</i> was observed in local cultivar (10%) followed by G-20 (8%) and RG 382(6%) in 12, 10 & 8 seed samples, respectively.	Dr.H.S.Cheema	For the information of the house
Soybean	STR	One hundred forty seed samples of three cultivars viz. JS 335, NRC 37 and Pratap soya were obtained from farmers of Kota and Chittorgarh districts of Rajasthan and were tested for germination and association of mycoflora using standard blotter method (ISTA, 1996). It was observed that 122 seed samples showed germination above MSCS level. The range of germination was 75-90% . Remaining 18 seed samples showed germination below MSCS level. The Association of <i>Macrophomina phaseolina</i> responsible for charcoal rot ranged from 2.0 to 10% in 15 seed samples of JS 335 & NRC-37	Dr.H.S.Cheema	For the information of the house

Crop	Discipline	Details of the results obtained	Scientist presenting the data	Resolution made
		from Chittorgarh and Kota whereas 7 seed samples showed association of <i>Colletotrichum</i> sp., the fungus responsible for anthracnose being in the range of 0.0-3.0% of JS 335 & Pratap soya from seed of Chittorgarh. The association of <i>Cercospora kikuchi</i> (0.0-2.0%) responsible for purple stain of soybean was observed in 3 and 5 seed samples of JS 335 & Pratap soya from Kota and Chittorgarh respectively. Whereas none of the seed samples was found with association of <i>Diaporthe phaseolorum</i> responsible for phomopsis pod blight.		
Vegetable cow pea	Horticulture ATC	A perusal of three years data indicate that the different treatments of weed control in cowpea had significant effect on pod yield. The maximum green pod yield (89.60 q/ha) of cowpea was recorded with the treatment mulching with black silver grey polythene, where as minimum green pod yield (45.28 q/ha) was recorded in weedy check. The maximum net return (Rs 109937=00) and B.C ratio of 1.58 was also recorded with the treatment mulching with silver gray polythene. Similar results were also obtained at ATC, Tabiji, Ajmer	Dr.B.D.Yadav	Recommended for inclusion in POP
Residue Analysis	Entomology	Dr. A.R.K. Pathan presented results of residual analysis of different insecticide / pesticides in vegetables and soil used by the farmers in different vegetable crops and suggested the safe waiting period for human consumption.	Dr.A.R.K. Pathan Dr B.N.Sharma	For the information of the house & recommended for inclusion in last page of POP in tabular form.
Plant Health Clinic	Plant Pathology	Twenty one plant samples were received in plant health clinic during July to December, 2015. Diagnosis of samples revealed that different cucurbits were found infected with viral diseases and others were infected with leaf hopper, downey mildew, aphids, root rot, ubia disease, mealybug, pythium, root rot, etc. possible solutions were suggested to the farmer on the spot.	Dr.(Mrs.) Kalpana Bhatnagar	For the information of the house -

The incharges of KVKs (Ajmer, Chomu, Dausa, Bansthali and Kotputli) presented the extension activities and seed production programme carried out during the *kharif* 2015 at their centres and farmers fields. The results presented included the front line demonstrations for the demonstration of new varieties/ hybrids, production and protection technologies. Results showed that all the demonstrations of improved varieties/ hybrids and technologies were economically viable and superior to farmer's practices. House was of the opinion that the FLDs of pearl millet hybrids should also cover the fodder yield along with grain yield.

Deputy Directors' of Agriculture of Jaipur, Ajmer, Dausa and Tonk districts presented the overall scenario of extension activities *viz.*, seed, fertilizer, minikit demonstrations including rainfall situation, area, production & productivity of different *kharif* crops in the district.

Dr.Sudesh, Convener of the meeting apprised the house about the technologies approved for inclusion in the POP (Annexure-II) and research finding finalized for adaptability testing at ATC, Tabiji, Ajmer (Annexure-III).

Sh. J.S. Sandhu, Joint Director Agriculture (Exten) Jaipur Division emphasized on use of new varieties in need based Front Line Demonstrations of different crops. He urged that Department of Agriculture and Agricultural University should coordinate in farmers fairs for better output of such activities and immediate benefit to the farmers. He also emphasized on use of varieties notified for the state of Rajasthan in minikit demonstrations. Joint Directors submitted the problems in their respective fields faced by the farmers for the solution to the scientists of RARI, Durgapura, Jaipur. All the problems raised were discussed one by one and researchable areas were identified to redress the problems (Annexure-IV)

Chairman, Professor Dr.Singh urged the scientists to work on farmers problems on priority, besides being engaged in teaching and other assignment given by the university administration. Dr.Sudesh acknowledged the contribution of Dr.R.K Bansal Prof. & University Head, Division of Plant Pathology and Dr. K.K. Bhargava, Prof. & University Head, Division of Entomology, Dr.Ashok Bhatnagar, Prof. & Head, Division of Entomology, Dr.B.L.Tandi Professor Division of Entomology and Dr H.S.Cheema Professor., Division of Plant Pathology, RARI, Durgapura, Jaipur in their respective fields for the noble cause of farmers socio-economic upliftment in the state and presented the bouquet by Dr.Singh & Sh.Sandhu to them.

Dr. Sudesh expressed sincere thanks to Chairman Prof. S.J.Singh for his fruitful suggestions and guidance to bring out the final recommendations during the two days discussions and deliberations, despite being very busy at the end of the financial year. He gratefully thanked to Joint Director Agriculture (Extn.) Sh. J.S. Sandhu, Co-Chairman of the meeting for provided valuable input in the meeting despite being very busy at the end of the financial year. He also extended sincere thanks to Dr.(Mrs) Neelam Yadav ,Special guest & Director (Research),SKNAU,Jobner for accepting the invitation and his valuable suggestions on cereals,pulses and vegetable crop despite being very busy at the end of the financial years. He extended thanks to Dr. A.C. Mathur, Professor Plant Pathology for hall and other necessary arrangements. He sincerely acknowledged the rapporteurs for recording the minutes of the meeting. Last but not the least, he expressed thanks to all the ministerial staff involved in various arrangements made for smooth conduction of the meeting.

The meeting ended with vote of thanks to the chair.

**Chairman and Director
RARI, Durgapura, Jaipur**

Copy of the proceedings of *Kharif-2016* of Zone IIIa forwarded for favour of information and necessary action to:

1. The Commissioner of Agriculture, Govt. of Rajasthan, Pant Krishi Bhawan, Jaipur.
2. The Commissioner of Horticulture, Govt. Rajasthan, Pant Krishi Bhawan, Jaipur.
3. The Director (Research), SKN Agriculture University, Jobner with two copies of research highlight *kharif* 2015.
4. The Director, Extension, SKN Agriculture University, Jobner.
5. The Dean, SKN College of Agriculture, Jobner.
6. The Dean, College of Agriculture, Lalsot, Dausa.
7. The Dean, College of Agriculture, Kumher (Bharatpur).
8. The Dean, College of Agriculture, Fatehpur Shekhawati
9. The Managing Director, Rajasthan State Seed Corporation, Pant Krishi Bhawan, Jaipur.
10. The Director, NRC on seed spices, Tabiji, Ajmer.
11. The Director of Millet Development, Govt. of India, II Floor, Block-A, Kendriya Sadan, Sector 10, Vidyadhar Nagar, Jaipur.302023
12. The Addl. Director of Research (seeds), SKNAU, Rajasthan Agricultural Research Institute, Durgapura, Jaipur.
13. The Addl. Director of Agriculture, Pant Krishi Bhawan, Jaipur
14. The Joint Director of Agric. (Extn.), Jaipur Division, Pant Krishi Bhawan, Jaipur.
15. The Joint Director (Horticulture), Jaipur Division, Pant Krishi Bhawan, Jaipur.
16. The Joint Director Agriculture (ATC), Pant Krishi Bhawan, Jaipur.
17. The Dy. Director of Agriculture (Extn./Hort.), Jaipur/Ajmer/Tonk/Dausa.
18. The Zonal Director Research, ARS, Navgaon (Alwar)/Fatehpur-Shekhawat (Sikar).
19. The Officer Incharge, Agril. Research Sub-Station, Tabiji (Ajmer)/ Diggi(Tonk)/ Kotputli.
20. The Programme Coordinator, KVK, Chomu/Tabiji/Banasthali/Dausa/Kotputli.
21. The Dy. Director Agriculture (Agronomy), ATC, Tabiji (Ajmer).
22. All Section/*Kharif* Crop Scheme In-charges, RARI, Durgapura-Jaipur.
23. In-charge, Technical Cell, RARI, Durgapura-ajpur
24. Dr. D.K.Pareek, Rapporteur, RARI, Durgapura, Jaipur.
25. Dr. K.C. Gupta, Rapporteur, RARI, Durgapura-Jaipur.
- 26. Dr. Vipin Kumar** Rapporteur, RARI, Durgapura-Jaipur
- 27. Dr. Rani Saxena** Rapporteur, RARI, Durgapura-Jaipur

(Sudesh Kumar)
Convener of the Meeting & Professor (Agronomy),
RARI, Durgapura-Jaipur

Action report on decisions taken in *Kharif* 2015 ZREAC meeting of Zone IIIa held at RARI, Durgapura, Jaipur on March 25-26, 2015

S. No.	Decision	Action Taken
1.	Inclusion of recommendations in Package of Practices	All the recommendations approved for inclusion in PoP have been communicated to appropriate authority
2.	Conduction of experiments for adaptability performance at ATC Tabiji, Ajmer	
	1. Effect of new insecticides for control of shoot fly.	Experiment was conducted successfully and result will be presented in pre ZREAC.
	2. Foliar spray of stress mitigating chemicals for mitigating impact of terminal heat stress on pearl millet	Experiment was conducted successfully and result will be presented in pre ZREAC.
	3. Effect of integrated approach for maximization of seed yield of Ground nut	Experiment was conducted successfully and result will be presented in pre ZREAC.
	4. Effect of foliar application of urea on rainfed cowpea.	The trial was considered as failed due to poor rainfall in crop season
	5. Weed management in vegetable cowpea.	Experiment was conducted successfully and result will be presented in pre ZREAC.
	6. Weed management in moongbean.	The trial was considered as failed due to poor rainfall in crop season
3.	Solution of the problems raised by Jt. Director Agriculture (Extension), Jaipur Division	
	Problem	Possible Solution/Action Suggested
	टमाटर व बैंगन में ओराबन्की की समस्या	Work is in progress as informed by HOD, Horticulture, RARI, Durgapura
	जामुन में डाइबैक	The problem was also reported during <i>kharif</i> ZREAC 2014 and 2015. Since the concerned Govt. officers did not contact to in-charge AICRP on Arid Fruit, SKNAU, Jobner for taking scientists to hot spot, therefore work could not initiate.
	अनार फल के अन्दर डी.कलरेशन	The problem was also reported during last <i>kharif</i> ZREAC 2015. Since the concerned Govt. officers did not contact to in-charge AICRP on Arid Fruit, SKNAU, Jobner for taking scientists to hot spot, therefore work could not initiate.
	नए खरपतवारनाशियों की सिफारिश तथा आगामी रबी फसल में इनके अवशेष के प्रभाव के अध्ययन का अभाव	Work is in progress
	बाजार में आ रहे नवीन तरल बायोफर्टीलाइजर की सिफारिश का अभाव	Work is in progress
	बाजार में आ रहे नवीन मिश्रित उर्वरक जिनमें सूक्ष्म पोषक तत्व सम्मिलित हो कि सिफारिश का अभाव	Work yet to be initiated

Production recommendations approved in *Kharif* 2016 ZREAC Meeting of Zone IIIa

- Spray of salicylic [acid@100ppm\(1.5g/15litre](#) water)or Thioglycolic acid @100ppm or Thiourea @1000ppm at grain filling stage was found to be effective in mitigating the adverse impact of terminal heat stress in pearl millet.As a special precaution hand gloves must be weared while using thioglycolic acid.
- Seed treatment of imidacloprid 600FS @8.75ml/kg seed followed by spraying of imidacloprid [17.8SL@0.009%\(0.5ml/lit](#) of water)at 35days after germination is effective for the management of shoot fly and stem borer in pearl millet.
- Black silver grey polythene of 25 micron is recommended to control the weeds effectively with maximum green pod yield in vegetable cowpea.

Research programme of ATC, Tabiji, Ajmer finalized in Kharif 2016 ZREAC Meeting of Zone IIIa

Crop	Discipline	Technologies to be tested	Concerned Head of the Division, RARI
Pearl Millet	Pathology	Management of blast disease in pearl millet by using fungicides (Dr. A. C. Mathur)	Head Entomology
Groundnut	STR	Integrated approach for maximization of seed yield of groundnut. To be repeated.(Dr. R. S. Sain)	In-charge STR
Groundnut	Agronomy	Effect of land configuration and mulching under irrigated conditions.(Dr.Yogendra Kumar)	Head Agronomy
Moongbean	Agronomy	Effect of weed management in moongbean. To be repeated (Dr. B. S. Shekhawat)	Head Agronomy
Cowpea	Agronomy	Effect of foliar application of urea on yield of rainfed cowpea – to be repeated. To be repeated	Head Agronomy
Guar-Wheat	Soil Science	Effect of phosphorus rich organic manure (PROM) on seed & straw yield of guar in guar-wheat crop sequence.(Dr. D. K. Pareek &Dr.P.C.Berwa)	Head Soil Science
Wheat-Groundnut	Soil Science	Effect of sulphur & vermicompost on sustainable production of groundnut in wheat-ground nut cropping system.(Dr. D. K. Pareek &Dr.P.C.Berwa)	Head Soil Science

Note: The concerned Heads/In-Charges are required to ensure timely implementation of the programme with intimation to the Director, Rajasthan Agricultural Research Institute, Durgapura, Jaipur.

ANNEXURE- IV

Kharif problems of Zone-IIIa for Jaipur Division referred to Rajasthan Agricultural Research Institute, Durgapura for their solution on priority basis (Kharif 2016)

Sr. No.	Problems	Possible solutions/ action suggested
1.	टमाटर व बैंगन में आरोबन्की की समस्या।	This problem was also reported during the last kharif season (2014&2015). As such the problem is referred to Head, Division of Horticulture to conduct the trials.
2.	बाजार में आ रहे नवीन तरल बायोफर्टीलाइजर की सिफारिश का अभाव	The problem is referred to Head, Division of Agronomy to initiate the experiments on the given problem.
3.	ग्रीन हाऊस में निमोटोड की समस्या	The problem is referred to Head, Division of Nematology for the solution.
4.	कम पानी में अधिक उत्पन्न होने वाली फसल किस्मों का अभाव	Referred to Head, Division of Plant breeding &Gen.for the solution.
5.	ज्वार, बाजरा, मक्का, कपास की खड़ी फसलों में खरपतवार नियंत्रण	The problem is referred to Head, Division of Agronomy to initiate the experiments on the given problem
6.	च्यला फसल की नवीन किस्मों का विकास	Referred to Head, Division of Plant breeding &Gen.for the solution
7.	उड़द फसल की नवीन किस्में	Referred to Head, Division of Plant breeding &Gen.for the solution
8.	ज्वार की किस्मों का समावेश	Referred to Head, Division of Plant breeding &Gen.for the solution

Note:

1. The concerned Head of the Divisions/In-Charges are required to ensure timely implementation of the programme with intimation to the Director, Rajasthan Agricultural Research Institute, Durgapura, Jaipur.
2. Department of Agril. GOR is requested to provide the financial assistance the required for conducting the experiments.