

BIO-DATA

1. Name : **Prof. ARJUN SINGH BALODA**
2. Current Position : **Director, Rajasthan Agricultural Research Institute & Network Coordinator, ICAR-AINP on Soil Arthropod Pests, RARI, Durgapura, Jaipur.**
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4. Pay Scale : **148500-218200 + GP 10000**
5. Academic qualification : **PhD. Agricultural Entomology**



6. Service Record:

Post held	Organization	Place of Work	Period		Nature of work
			From	To	
Asstt. Professor (Entomology)	RAU, Bikaner	DLA/Agrometerology	08.05.1996	31.07.2001	Research
Asstt. Professor (Entomology)	RAU, Bikaner	KVK, Bikaner	01.08.2000	25.04.2001	Extension
Associate Professor	RAU, Bikaner/ SKNAU-Jobner	ICAR-AINP on Soil Arthropod Pests, RARI, Durgapura, Jaipur	26.04.2001	11.05.2011	Research
Professor (Entomology)	SKNAU-Jobner	ICAR-AINP on Soil Arthropod Pests, RARI, Durgapura, Jaipur	10.05.2011	Conti-	Research, Teaching, Guiding the PhD. & MSc. Students
In charge (Additional)	RAU, Bikaner	Central Library and Information, ARS, Durgapura, Jaipur	01.06.2004	13.08.2012	Daily routine work of Library
Head & Network Coordinator	SKNAU-Jobner	ICAR-AINP on Soil Arthropod Pests, Division of Entomology, RARI, Durgapura, Jaipur	01.07.2017	Conti-	Research & Daily Routine work of Division and Project
Dean	SKNAU-Jobner	College of Agriculture-Kotputli	01.02.2020	1.08.2020	Administrative work of Institute
Director	SKNAU-Jobner	Rajasthan Agricultural Research Institute, Durgapura, Jaipur	01.09.2020	Conti-	Administrative work of Institute

7. National / International Fellowship / Award:

- ❖ In the XX Group Meeting of the project organized at University of Agriculture Science, GKVK, Bengaluru, dated March 1-2, 2019, the Durgapura Centre of AINP on Soil Arthropod was awarded 'The Best Center'.
- ❖ Five days kisan mela was organized by SKNAU, Jobner during 22-26 Feb, 2021. Total 86 stalls were displayed by different organizations. Rajasthan Agricultural Research Institute, Durgapura, Jaipur bagged the best stall award at the Kisan mela. RARI displayed the varieties, technologies, live samples, etc. at their stall. Folders containing leaflets of many important information for farmers were also distributed by them. Dr. A.S. Baloda, Director, RARI alongwith his team received this award from HVC Dr. J.S. Sandhu and Sh. Alok Beniwal Ji in the closing ceremony of the Kisan Mela.

8. Research / Extension/Teaching Achievements:

Research: (1996- 2000)

- Two sprays of methomyl 12.5 L @ 3ml/ Lit. of water was effectively control the *Chilo partilus* in maize.
- Two sprays of acephate 70 SP (400 g a.i./ha.) was effectively controlled the mustard aphid in semi humid region of Rajasthan.(Zone-IVA).
- To develop the prediction of mustard aphid incidence in semi humid region of Rajasthan. (Zone-IVA) correlate with weather parameters.

Research: (2001-2021)

- ✓ An integrated pest management technology for whitegrub, (*Holotrichia consanguinea*) the predominant species of the region was developed. Practical utility of whitegrub management technology through pheromone was successfully demonstrated in the whitegrub endemic area of Jaipur and Dausa districts of Rajasthan. During early four years, 32 on-campus and off-campus training programmers' were organized for farmers and extension functionaries. The pheromone technique of whitegrub management has reduced the pesticides consumption by 60 per cent, which ultimately reduced the cost of production, labour and pesticide load on environment.
Till date the demonstrations and training programmers were continuous in selected areas and under ICAR- AINP on Soil Arthropod Pests.
- ✓ Seed treatment in groundnut with Chlorpyriphos 20 EC at 400 g a.i./ha (25 ml./kg seed)was recommended for control whitegrub. (2002) (Included in POP)
- ✓ Standing crop treatment in groundnut with Chlorpyriphos 20 EC at 800 g a.i./ha was recommended for control whitegrub. (2004) (Included in POP)
- ✓ Seed furrow application of Chlorpyriphos 10 G at 2 kg a.i. /ha has been found vary effective against *Holotrichia consanguinea* in groundnut crop. (2004) (Included in POP)

- ✓ Seed treatment in groundnut with Quinalphos 25 EC at 400 g a.i./ha (25 ml./kg seed) was recommended for control whitegrub. **(2005) (Included in POP)**
- ✓ Standing crop treatment in groundnut with Quinalphos 25 EC at 800 g a.i./ha was recommended for control whitegrub. **(2006) (Included in POP)**
- ✓ Seed treatment in groundnut with imidacloprid 200 SL at 48 g a.i./ha (3 ml./kg seed) was recommended for control whitegrub. **(2008) (Included in POP)**
- ✓ Standing crop treatment in groundnut with imidacloprid 200 SL at 60 g a.i./ha was recommended for control whitegrub. **(2008) (Included in POP)**
- ✓ New insecticide Clothianidin 50 WDG at 160 g/ha (2 g/ kg seed) was effectively control the whitegrub in groundnut. **(2010) (Included in POP)**
- ✓ Use of Fipronil 5 SC at 10.00 ml/kg seed was effectively control the termite in chickpea crops. **(2011) (Included in POP)**
- ✓ Seed treatment with Clothianidin 50 WDG at 1.5 g per kg seed has been found good in wheat against termite. **(2011) (Included in POP)**
- ✓ Recommendation of use of Imidacloprid 17.8 SL as standing groundnut crop treatment at 360 ml/ha, 21 days after sowing is effective for the management of whitegrub, *Holotrichia consanguinea*. **(2017) (Included in POP)**
- ✓ The technology of using imidacloprid 600 FS as seed treatment @ 6.5 ml/ kg of seed of groundnut for managing white grub, *H. consanguinea*. **(2019) (Included in PoP)**
- ✓ For the management of termites in wheat, fipronil 5 SC at 6 ml/ kg seed use as seed dresser was found significantly superior. **(2019) (Included in PoP)**
- ✓ For the management of termites in chickpea, fipronil 5 SC at 10 ml/ kg seed use as seed dresser was found significantly superior. **(2019) (Included in PoP)**
- ✓ For the management of termite in Groundnut crop treat the seeds with Imidacloprid 600 FS @ 6.5 ml or Fipronil 5Sc @ 10 ml per kg seed. **(2021) (Included in PoP)**
- ✓ For the management of white grub beetles slow release nanogel of pheromone methoxy benzene (anisole) is effective up to 25 days of installation. **(2021) (Included in PoP)**

- ✓ For the management of termite in chickpea, seed treatment with Imidacloprid 600FS @ 5 ml per kg seed is most effective. **(2021) (Included in PoP)**
- ✓ For the management of termite in standing chickpea crop, drenching the crop with Imidacloprid 17.8 SL @ 360 ml or Fipronil 40% + Imidacloprid 40% 500 gram per ha is most effective. **(2021) (Included in PoP)**
- ✓ Co-operative developer of 2 Varieties of pearl millet namely RHB 233, RHB 234 (National release) and 2 varieties of Barley namely RD 2899, RD 2907.
- ✓ For the management of whitegrub the microbial control agents fungi, *Metarhizium anisopliae* and *Beauveria bassiana* were identified as entomopathogenic to the predominant whitegrub species of the region i.e. *Holotrichia consanguinea*. It is found that fungi, *Metarhizium anisopliae* was more effective, when it placed at soil depth of 10-15 cm.
- ✓ Few species of nematode, *Setainernema glaseri*, *Heterohabditis spp.* And a local strain was found to be pathogenic to several whitegrub species including *Holotrichia consanguinea*. Rearing the local strains of this nematode at department.
- ✓ Inventory of soil arthropods of Durgapura soil was prepared in which about 20 different types of beneficial soil fauna belonging to different order were listed.
- ✓ The effect of insecticides on non- target insects was carried out and it was found that these pesticides are harmful to soil mites, collembolans and other micro soil arthropods . It was found that the population of soil arthropods specially soil mites and collembolans were restored after two months in case of chlorpyrifos and quinalphos and three months in case of imidacloprid.

Extension: (2000-2021)

- ✓ Many number of off-campus or on-campus training was conducted in KVK, Bikaner.
- ✓ Large on-campus training was conducted at KVK on Mushroom production in Bikaner area.
- ✓ Actively participate in state level KRISH MELA organized in university head quarter on 2001.
- ✓ Holds about 21 years experience in extension served as Assistant Professor, Associate Professor, professor, Network Coordinator, Dean and Director in the Project AINP on Soil Arthropod Pests, RARI, Durgapura, Jaipur .
- ✓ Conducted large number of training programmes for farmers, farm women, extension workers and rural youths to educate them about integrated management of soil arthropod pests, integrated pest management and protected cultivation.
- ✓ Extension advisory work-Kisan Mela, exhibition, distribution of published literature etc.

- ✓ Delivered several live TV telecasts programme to educate the farmers for doubling their income.
- ✓ Visiting farmers' fields getting first-hand knowledge from them and reverting back with their solutions is also part of my responsibility.

Teaching:

- ✓ I have teaching experience of 21 years to teach the Entomology courses to the BSc. MSc. And Ph.D. students.

9. Research Projects Executed as PI / CO-PI:

Contract/Consultancy product testing Handled as Co-Principal Investigator:

- ✓ Evaluation of Thiamethoxam 75% SG against termite on Groundnut. (Syngenta India Limited, Pune), in 2009.
- ✓ Testing of new product clothianidin 50% WDG (Dantotsu) against whitegrub in groundnut crop. (Sumitomo Chemicals India Pvt. Ltd. New Delhi), in 2009.
- ✓ Evaluation of Thiamethoxam 75% SG against termite on Groundnut. (Syngenta India Limited, Pune), in 2010.
- ✓ Evaluation of Fipronil 0.3 GR (Regent 0.3 GR) against termite in wheat crop. (Bayer Crop science Limited), only in 2010.
- ✓ Bio-efficacy studied with *Metarhizium anisopliae* based mycoinsecticide against root grub (*Holotrichia spp.*), (PCI, Bangalore) in 2012.
- ✓ Evaluation of the bio-efficacy of UPST 119, as seed treatment against pests in Groundnut & effect on natural enemies (2021).
- ✓ Evaluation of the efficacy of biostimulant 'Opteine' in groundnut crop (2021).

10. Distinctive work done in the field of higher agricultural education:

- ✓ Organized XX Group Meeting of the project, All India Network Project on Soil Arthropod Pests at University of Agriculture Science, GKVK, Bengaluru, on March 1-2, 2019 by the Project Coordinating Unit, Division of Entomology, RARI, Durgapura, Jaipur, in association with GKVK, Bengaluru center of the project. The Group meeting was inaugurated by ADG (PP&B), ICAR, Dr. P.K. Chakrabarty as Chief Guest and Presidential address by Hon'ble Vice Chancellor, GKVK, Bengaluru, Dr. S. Rajendra Prasad.

- ✓ Sponsored & organized a 7-day training programme on “**Taxonomy of White grubs (Coleoptera: Scarabaeidae)**” in collaboration with NBAIR-Bengaluru from 19th to 25th February 2020 by the project Coordinating Unit, Division of Entomology, RARI, Durgapura, Jaipur in which 21 participants of the project, AINP on SAP as well as PhD. Scholar of RARI, Durgapura participated and benefited.
- ✓ **Developed Agriculture Technology Knowledge Centre**
Agriculture Technology Knowledge Centre has been established at RARI, Durgapura, Jaipur under RKVY scheme with the budget of Rs. 464.00 Lakhs. In this museum latest technologies and innovations in the field of Agriculture and allied sector are demonstrated in very precise manner. **Agriculture Technology Knowledge Centre** was inaugurated on 23.12.21 by Sh. Lal Chand Kataria, Hon’ble Minister of Agriculture, animal Husbandry and Fishries, GOR.
- ✓ **Developed IFS Module components at Governor’s House**
RARI, Durgapura established a vermicompost unit, azolla unit and fully automized drip irrigation system in Nutritional Garden at University Park established at Rajbhawan, Jaipur. These units were inaugurated on 22 Sep., 2021 by Sh. Kalraj Mishra, Hon’ble Governor of Rajasthan in the presence of Prof. J. S. Sandhu., Hon’ble Vice Chancellor, SKNAU, Jobner and Dr. R. Paliwal, Registrar, SKNAU, Jobner. Prof. Sandhu briefed about the importance, benefits and uses of vermicompost, azolla and fully automized drip irrigation system. These units were developed under the supervision of me, Director, RARI, Durgapura.
- ✓ **Development of Farm Pond**
Under the supervision of me on the concept of “*Catch the Rain*”, a farm pond was made at Rajasthan Agricultural Research Institute, Durgapura, RARI. Hon’ble Vice Chancellor of SKNAU, Jobner, inaugurated this farm pond on the occasion of Independence Day. 42 lakhs litres of water can be collected & stored in this pond during the monsoon season.
- ✓ **Developed demonstration unit of Mushroom Cultivation**
Under the supervision of me a demonstration unit on oyster & button mushroom was developed at RARI, Durgapura, Jaipur. Main objective of this unit is to impart proper practical knowledge on spawn production, production techniques of different mushrooms, compost making, value addition through organizing hand-on trainings.
- ✓ **“Student READY, RAWE Training Programme”**
Organized 35 days training programme of UG students of Jagnath University, Chaksu, Jaipur on “**Student READY, RAWE Training Programme**” at Rajasthan Agricultural Research Institute, Durgapura-Jaipur from 06th April, 2021 to 10th May, 2021.

11. Seed Production:

- ✓ I am directly involved in production of breeder seeds, foundation seeds and certified seeds of all kharif and rabi crops at Rajasthan Agricultural Research Institute, Durgapura, Agriculture Research Station, Kherwadi, Jaipur District, and Agriculture Research Station, Padasoli, Dausa District in Rajasthan.

12. Teaching Experience : 21 years

13. Guided Ph.D. Students : 04

14. Professional Contributions:

Member of important committees made by University from time to time.

15. Conference / Seminar / Symposia / Workshop attended:

International : 10
National : 40

16. Publications:

Research papers in referred journals : 40
Books : 02
Research paper in books/proceedings : 11

(A.S. Baloda)