

5 May 2017

ICARDA
Office of Deputy Director General-Research (DDG-R)
Biometrics and Statistics Section (BSS)

A report of trip to New Delhi, and ICARDA FLRP Amlaha, 3 April - 5 May 2017 for Biometrics and Statistics Support to SA&C RP and Afghanistan Projects

by Murari Singh

Purposes:

1. Biometrics and Statistics support to Afghanistan Projects, 3-16 April 2017, New Delhi (Dr Saharawat and team)
2. Biometrics and Statistics support to SACRP, 17 April - 4 May 2017, New Delhi and Amlaha (Dr Sarker and team)

The report has two parts.

Part –I

Period: 3 – 16 April 2017

Purpose: 1. Biometrics and Statistics support to Afghanistan Projects, 3-16 April 2017, New Delhi (Dr Saharawat and team)

Activities:

Team: Yash Saharawat, Srini Tavva, Darya Khan, Lina Mohammadi, Abdul-Halim Nasery

- Helped revise the manuscript “Genotype × environment interaction and identification of high yielding **wheat** genotypes for Afghanistan” by Darya Khan Akbarzai, Yashpal Saharawat,*, Lina Mohammadi, Abdul Rahman Manan, Assadullah Habibi, Srinivas Tavva, Swain Nigmananda and Murari Singh
in the light of reviewers’ comments and prepare response to the comments. The manuscript has been accepted for publication in JEBAS
- Helped revise an earlier version of a manuscript “Genotype × Environment interaction in **chickpea** under Afghanistan environments and identification of high yielding genotypes” by Lina Mohammadi, Yashpal Saharawat,*, Darya Khan Akbarzai, Abdul Rahman Manan, Assadullah Habibi, Srinivas Tavva, Swain Nigmananda and Murari Singh and emailed for submission to JEBAS (Journal of Experimental Biology and Agricultural Sciences).

- Carried out statistical analysis of data (detection of G×E interaction, estimation of variance components, means, GGE biplots) and helped in preparing a DRAFT manuscript “Genotype × environment interaction in **lentil** under Afghanistan environments and identification of high yielding genotypes”. Further input in writing will be provided.
- Revised the manuscript “A Bayesian assessment of productivity and risks to achieve target yields from improved chickpea and mung bean varieties using on-farm trials in Afghanistan” Murari singh,*, Srinivas Tavva, Yashpal Singh Saharawat and Javed Rizvi. This manuscript was accepted in Experimental Agriculture. Galley proofs were also corrected and the corrected version is in queue for an OA publication.
- Contributed to respond to reviewers’ comments and revision of "Potential of introducing improved production practices in food legumes in increasing food security in Afghanistan" (revised title) by Srinivas Tavva, Murari Singh, Javed Rizvi, Yashpal Singh Saharawat and Nigamananda Swain (submitted to Scientia Agricola).
- Statistical analysis was carried out on datasets from **on-farm demonstrations on wheat, chickpea, lentil and mungbean** in terms of fitting mixed models to estimate variance components and means, GGE biplot. Results summary formats were also suggested. (Darya Khan and Lina)
- The statistical advises were rendered on
 - Agronomy experiment for doses of P₂O₅ in RCBD (Darya Khan and Lina)
 - Irrigation experiment summary (Darya Khan and Lina)
 - VBSE demo data on distribution of farmers: tabulations to detect association and summaries from datasets—FFS, Field Days, Demonstrations, kitchen garden, VBSE (value based seed enterprises) (A-H Nasery)

Part -II

Period: 17 April – 4 May 2017

Purpose: 2. Biometrics and Statistics support to SACRP, 21 April - 4 May 2017, New Delhi and Amlaha (Dr Sarker and team)

Activities:

- Discussed and developed the workplan in discussion with Dr Sarker on April 3 2017.
- Worked with SA&C RP team: Sarker, Aqeel and Atul, at New Delhi (21-22 April and 30April – 4 May, 2017) on the following:
 - Discussion on analysis of on-farm trials data from the following projects
 - NFSC/ data to be organized
 - OCP/data to be organized
 - Analysis of data and interpretation of results from the study on farmer-to-farmer

dissemination of ICARDA seeds in Bihar, and behaviour of distress (using distress coefficient) for grain sale. The output of the analysis discussed and a DRAFT manuscript reviewed (Atul Dogra).

- Worked with ICARDA FLRP Amlaha team: S Barpete, VS Tomar, S Kumar, R Mehra, A Kumar, at Amlaha, MP, 24 – 29 April 2017.
- Trained ICARDA in-house staff (S Barpete, VS Tomar, S Kumar, R Mehra, A Kumar) at FLRP, ICARDA, Amlaha, from 24-27 April 2017, covering the topics:
 - introduction with discussion on basic concepts in Design and Analysis of experiments in complete and incomplete blocks, multi-location trials and their analysis,
 - Online BioComputing,
 - use of DARwin and iTOL software
- Contributed to further editing of the manuscript “Genetic variability and heritability of agronomic traits in 3102 selected chickpea (*Cicer arietinum*) lines” by Barpete et al. The manuscript now shared for inputs from other co-authors.
- Data analysed and results tabulated, and a DRAFT agreed on: “Assessment of genetic variability and interrelationships among agronomic traits of chickpea (*Cicer arietinum* L.) genotypes for genomic selection in semi-arid tropics of India” Barpete et al., was circulated for co-authors’ feedback.
- Data analysed and tabulated for a study on soma clones of grasspea in Syria, 2011-12. DRAFT will be shared by Barpete for further revision.

END