

GCRF Bioinformatics
and Biological Resources

Virtual workshop – Developing a hybrid bean collection to advance climate- ready bean breeding

Tuesday 1st March 2022, 08:00-12:15
Colombia (13:00-17:15 GMT)

zoom

You are invited to attend a free half-day workshop comprised of a series of presentations and panel discussion addressing opportunities and challenges for utilising wild relatives for breeding improved *Phaseolus* varieties to limit the effects of abiotic and biotic stress in response to climate change.

Invited speakers including Daniel G Debouck (*Phaseolus* botanist) and Steve Beebe (Bean Breeding Program Leader, CIAT) will provide expert insight into the selection, breeding and utilisation of natural diversity present in crop wild relatives to help improve productivity and enhance resilience.

Partner presentations will document the project's progress characterising the exciting new, climate-ready hybrid bean resources under development, highlighting essential screens for traits supporting climatic resilience and disease resistance, and will include a virtual tour of the multiplication sites and new CIAT gene bank.



Photo: Juan Pablo Marin

Alliance



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Programme

08:00-08:10: Introductions

Invited speakers:

08:10-08:40: Daniel G Debouck: When nature helps your crossing programme
(Expert consultant, CIAT affiliate)

08:40-9:10: Steve Beebe: Wide crosses in *Phaseolus* bean breeding
(Bean Breeding Program Leader, CIAT)

09:10-09:40: Benjamin Kilian: Pre-breeding achievements in the Crop Wild Relatives project
(Senior Scientist, Plant Genetic Resources, The Crop Trust, <https://www.cwrdiversity.org/>)

Break/Descanso: 15 minutes

Project resource presentations:

09:55-10:25: CIAT – Selection and multiplication of adaptive germplasm for supporting trait characterization, phenotyping of key resilience traits under screenhouse conditions, Video tour

10:25-10:55: NIAB – Screening for disease resistance to major common bean pathogens *Colletotrichum lindemuthianum*, *Rhizoctonia solani*, *Sclerotinia sclerotium*; Physiological assessment of root angle and stomatal density, direct F1 crossing programme

10:55-11:15: CIAT/NIAB – Accessing new climate-ready germplasm and genotypic/phenotypic resources

Break/Descanso: 15 minutes

11:30-12:15: Discussion panel: Opportunities and challenges in using wild relatives for climate change breeding



Photo: Juan Pablo Marin