



Narrowing the skill and knowledge gaps of young researchers on integrated pest and disease management on food legumes in Ethiopia

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Rational: Many of young researchers working in plant protections lacks skills and knowledge on pest and disease identification, disease/pest measurements, pest and disease dynamics, IPDM options and different aspects of conducting plant protection research and generating quality data. Skill and knowledge gaps are pronounced mainly on emerging and new diseases affecting food legumes. Additional objective of the training was to train the researchers in evaluating breeding lines together with breeders. Three days training (October 11-13, 2022) was organized for young researchers from Federal and Regional research centers at Ethiopian Institute of Agricultural Research and a half day field visit.

Objective

- To improve the capacity of young scientists in integrated pest and disease management on food legumes

Results

Twenty-seven young researchers attended the training course supported by bilateral projects and PHI from Federal and regional Research centers. Young researchers from three research centers are partners to PHI on the management of parasitic weeds and virus-vectors managements on food legumes activities. The trainers were from Ethiopian Institute of agricultural research, University of Western Australia, New South Wales Department of Primary Industry-Australia and ICARDA. The training focused on the Integration of breeding and pathology research for sustainable legume disease management in Ethiopia and covered the following topics.

1. Faba bean breeding targeting waterlogged soil, acid soils and root diseases
2. Faba bean resistance breeding for foliar diseases (chocolate spot and faba bean gall)
3. Lentil resistance breeding for foliar and root diseases in Ethiopia
4. Insect pest management in food legumes in Ethiopia
5. Managing soilborne pathogen complexes - a complicated challenge that is achievable for breeders, agronomists and pathologists providing you first understand the complexes
6. Predicting and modelling plant disease epidemics – general guiding principles and specific application to legume soilborne diseases
7. Understanding foliar pathogen complexes: the key challenge for developing and implementing successful breeding, cultural control and chemical management strategies
8. Using weather-based modelling to assess and manage risks of legume disease epidemics
9. Legume viruses and root diseases research in Australia
10. Legume virus diseases research in food legumes in CWANA
11. Phenotyping of legumes for foliar and soil-borne diseases at ICARDA
12. Pre-Breeding for disease and insect resistance at ICARDA
13. Facility and field visits at Debre Zeit Agricultural Research Centre



Photo 1. Field visit of lentil breeding program, Debre Zeit Research Center, Ethiopia

Similar training will be given to young researchers from other PHI partners countries (Morocco, Tunisia and Lebanon).