

Turning the tide on pulses production in Ethiopia

From imports to exports



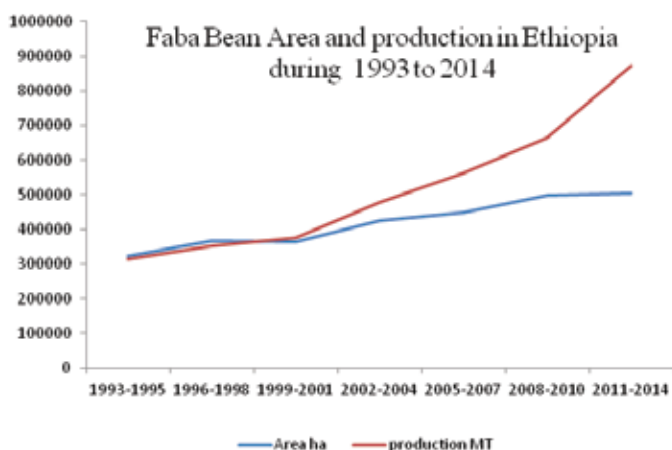
Faba bean

Ethiopia is the second major faba bean producer worldwide after China, and it is the first in Africa. However, in the past, the crop has suffered from biotic stresses such as foliar diseases, root rots and *Orobanche crenata* which have affected faba bean yield drastically. Efforts made by ICARDA and the Ethiopian Institute of Agricultural Research's (EIAR) legume research program are reaping rewards over the past decade as yields have shot up and faba bean production is steadily growing, as is the cultivated area.





The production and area are increasing continuously since 1993 with an annual average growth of 2.5% in the cultivated area and 5.8% in the production. Under the research partnership focused on faba bean, ICARDA has been providing improved germplasm that is resistant to chocolate spot, ascochyta blight and Orobancha, to EIAR for testing for adaptability to the local environment and for crossbreeding with local varieties. So far, 22 faba bean large seed types, that are high yielding, disease-resistant and Orobancha-resistant have been released with wide and specific adaptations. In conjunction with improved varieties, research has also focused on developing improved agronomic practices, such as optimal seed rate and weeding; and early planting (August) using ridge and furrow, and broad-bed and furrow systems to tackle excess water problem with vertisols (soil with a high content of clay).



The technology 'package' has increased the faba bean production exponentially, from 312 million tons (MT) in 1993 to 838944 MT in 2014. This was achieved mainly by an increase in average yield – from 1040 kg/ha in 2000-02 to 1840 kg/ha in 2014.

An aggressive dissemination strategy for improved varieties has been a key factor in the scale of research impact on faba bean production in Ethiopia. Farmers participating in the popularization program produced seed under the supervision of EIAR, which were then distributed from farmer to farmer and promoted through field days in the Africa Regional Environment Centre (AREC) region and in Amhla farm. Some farmers even went on to become the nucleus of Farmer Research Groups in different districts, further scaling up the benefits. Also, several district extension experts and farmers were trained in seed production and processing to avoid the shortfall in improved seeds.



Following a participatory selection process conducted by the Africa Rising project implemented by ICARDA and Debre Birhan Agricultural Research Center (DBARC), faba bean variety Walki (high yielding, disease resistant and waterlogging tolerant) was introduced based on farmer preferences. Many farmers have now joined the contract-based village seed production schemes, generating extra incomes. Participating farmers have praised the effort of DBARC and ICARDA and the support of USAID and requested the expansion of the program to ensure access to seed and the adoption of the technology. North Shewa farmers are now convinced that bringing back faba bean to the production system will not only improve food and nutritional security, but break the cycle of fallowing, which will enable them to improve crop production and productivity by ameliorating soil fertility through nitrogen fixation. See more at: <http://www.icarda.org/update/new-faba-bean-variety-replenishes-soils-and-raises-hope-ethiopia#sthash.zvCqUf0o.dpuf>