**Screening Plant Genetic Resources under Organic Management**

**for Breeding**

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Key words: organic plant breeding, pea, faba bean, cowpea, soybean

Summary: The breeding research of pea (*Pisum sativum* L.) and faba bean (*Vicia faba* L.) crops began in 2013 because of priority for these species to be produced organically in Turkey. Nurseries were set up to cultivate landraces of pea and faba bean for regeneration, multiplication and observation of agro-morphological characters in autumn season (November 2013) at Organic Open Field Experimental Area of Aegean Agricultural Research Institute (AARI) located in the Mediterranean Region. Cowpea (*Vigna unguilucata* L.) and soybean (*Glycine max* L.) trials were also included by AARI for comparing grain legume crops of organic breeding programme of COBRA (Coordinating Organic Plant Breeding Activities for Diversity) project. For this purpose, nurseries of pea (24 populations), faba bean (17 populations) and drought tolerant cowpea (11 populations) were used for single plant selections for breeding purposes. The accessions were regenerated, multiplied and conserved at the National Seed Gene Bank of AARI. In addition, trials of advanced lines of faba bean and soybean genotypes were set up in 2013. The trials of 8 faba bean and 6 soybean genotypes in year 1 showed that grain yield and some of yield components such as number of pod per plant, number of seed per pod, plant height, number of days to flowering were significantly different and superior to standard registered varieties.

 **Acknowledgements:** The work reported here is supported by the EU Core Organic II project COBRA.