PP22: Evaluation of faba bean accessions under heat prone conditions

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Faba bean (*Vicia faba* L.) is one of the most important grain legumes grown world-wide for food and feed. Heat is the major abiotic stress along with drought and affecting faba bean productivity in heat prone areas. In this study we assessed the performance of 140 faba bean accessions representing the GCP reference set under heat prone conditions at ICARDA, Terbol station in Lebanon during 2015 summer season. The accessions were planted, using alpha lattice design with two replications with two checks. Data on days to flowering, growing degree days, number of pods per plant, number of mature pods per plant, number of seed per plant, number of mature seeds per plant, number of mature seeds per pod, hundred seed weight and plant height were collected. Pollen samples were collected at 30 and 35°C and tested for their germination. Principle Component Analysis showed that at 35°C degrees, yield component and pollen viability explained 58% of the total variation. Based on these results, seven heat

tolerant accessions were selected for further analysis like association mapping and consequently identifications of QTL associated with heat tolerance.