

Pollination Effectiveness of Native Bee Species in Quality Seed Production of Berseem

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Abstract : Berseem is the major fodder crop grown in Pakistan and is highly preferred by cattle farmers due to its multicut nature and nutritious value. The quality seed production in berseem is largely dependent upon the activities of insect pollinators, particularly bees. In order to determine the effectiveness of native bee species in quality seed production of berseem, an experiment was conducted in the research field of MNS-University of Agriculture, Multan, Pakistan. The pollinator community of berseem was composed of four bees, three syrphid fly, and two butterfly species. *Pesudapis* sp. was the most abundant insect visitor, followed by *Apis mellifera* and *A. dorsata*. The visitation rate of *A. mellifera* was found highest, followed by *Pesudapis* sp. and *A. dorsata*. Moreover, single-visit efficacy in terms of seed per head and 1000 seed weight proved *A. mellifera* and *Pesudapis* sp as the most effective pollinators. Conserving these bee species may lead to sustainable berseem seed production in Pakistan.

Keywords : honey bees, syrphid fly, visitation rate, single visit

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