The impact of using leafcutting (Megachilidae: Hymenoptera) with different fertilization treatment on alfalfa seed production

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The impact of using leafcutting (Megachilidae: Hymenoptera) with different fertilization treatment on alfalfa seed production Mohamed A. Shebl, Soliman M. Kamel, Talaat A. Abu Hashesh, Mohamed A. Osman, Dept. of Plant Protection, Faculty of Agriculture, Suez Canal University, Ismailia, EGYPT. Abstract Alfalfa one of the most important forage crop in the world; leafcutting bees which belong to Fam: Megachilidae are very promising pollinator of Alfalfa is USA and Canada. Different lefacutting natural nests were discovered in Ismailia (east part of Egypt). Artificial polystyrene foam nests were used for bees nesting; it is easy to manage and handle it in alfalfa fields. We prepare the experimental filed with 1Feddan for our experiment in early October 2005, 2006. Different fertilization treatments were carried out for testing their impact on alfalfa seed production in the presence of artificial nests. The highest 16 Average of pods number/4 inflorescence (600gm Phosp! horus 5.2 + 450gm potassium 2), the highest Average of seeds number/100 pods was 518 (300gm Phosphorus 5.2 + 450gm potassium 2), the maximum Dry weight of 100 seeds was 1.9gm (600gm Phosphorus 5.2) in 2005. The highest Average of pods number/4 inflorescence was 16 (different fertilization treatments), the highest Average of seeds number/100 pods was 750 (900gm Phosphorus 5.2 + 450gm potassium 2), the maximum Dry weight of 100 seeds was 0.31gm (600gm Phosphorus 5.2) in 2006. The seed production depends basically on the pollination of leafcutting bees (tripping mechanism) more than fertilization treatment; the number of emerged bees was higher in 2005 than 2006. Key words; Pollination, Alfalfa, Seed Production, Leafcutting bees.