

ABSTRACT

EFFECTIVENESS OF PLANT-BASED AND CHEMICAL PESTICIDES TO CONTROL PEST POPULATION IN MAIN MAIZE CROP (*Zea mays* L.).

by

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The main constraints that often influence the production of corn plants is pest attacks such as seed flies, stem borers and cob borers. The most common technique used to control those pests is by spraying either botanical or chemical pesticides. This research was aimed at comparing the effectiveness of applying plant-based and chemical pesticides to control pest population in maize crop (*Zea mays* L.). The experiment was carried out in trial fields at Politeknik Negeri Lampung, Bandar Lampung from November 2011 to February 2012 using a randomized block design (RGD) with 3 treatments and 6 replications. The trial treatments were spraying water without pesticides (control), spraying neem leaf extract pesticides, and sowing chemical pesticides (3% Karbofuran and 25 gr Dekametrin). The result plant data and corn production were analysed of variance (Anova) then followed by LSD (Least Significant of Difference Test) at 5% significant level. The results showed that pest control technique using chemical pesticides was more effective to control pest (seed flies) than that using plant pesticides. However, applying plant and chemical pesticides did not significant effect in controlling stem borer and cob borers.

Key words : seed flies, stem borers, cob borer, vegetable and chemical pesticides.