EFFECTIVENESS OF CORN COB LIQUID SMOKE ON THE OF APHID PESTS (Aphis glycine) ON EDAMAME SOYBEAN CROPS

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ABSTRACT

Every year, domestic food demand increases, one of which is edamame soybeans. However, the supply of edamame soybean production itself is still below the demand. Based on data from the Central Statistics Agency (BPS, 2021), the results of edamame soybean production in Jember Regency in 2020 were 7,737.43 tons and productivity of 17.62 quintals/ha with a harvested area of 4,391.73 ha. Many factors cause the decline in edamame soybean production, such as increasing pest attacks, the increase in pests can be from various things such as humid environmental conditions due to the tropical climate and high rainfall (Kartikasari et al. 2018). Many sources of problems faced by farmers in edamame soybean production activities result in a decline in soybean production itself. From the various problems above, new innovations are needed such as the creation of environmentally friendly natural pesticides to minimize the use of active chemicals that can harm the environment, the use of coconut shells, corn cobs and rice husks which can be used as one option for utilizing agricultural waste in the manufacture of natural pesticides. This study applied liquid smoke from corn cobs with a concentration of 10%. The Edamame variety used was ryoko. This study used two designs, namely an efficacy test with a completely randomized design (CRD) non-factorial with 6 treatments and 3 replications. Then the field research design used Non-Parametric which compared two research plots between plant plots applied with liquid smoke from corn cobs with synthetic chemical insecticides with the active ingredient Profenofos 5gr/l. This study was conducted in Patemon Village, Pakusari District, Jember Regency. The results of this study showed that the application of synthetic chemical insecticides with the active ingredient Profenofos had a significant effect on liquid smoke from corn cobs on the variables of pest population, attack intensity and harvest yield.

Keywords*: edamamae soybeans, liquid smoke, aphids*