

Abstract

The use of Physic Nut meal to improve soil fertility for Chinese Kale had been studied into 3 experiments using RCB with 4 replications. Each experimental unit covered 4 m² area while its planting space was 20x20 cm. (25 plants per plot) The results showed that using the physic nut meal at 10 kg per plot (4 tons per rai) gave the significantly highest fresh yield of 1036.44 g per plot and had the significantly least numbers of aphid and *Plutella xylostella*, 2.6 and 1.2 per 5 plants, respectively. The use of 50% physic nut instead of hen dung in the dry compost tended to give higher fresh yield (1320.50 g per plot) than those of other treatments and had the numbers of aphid and *Plutella xylostella*, 5.4 and 3.2 per 5 plants, respectively, which were insignificantly less than those of other treatments. Finally, the use of bioextract once per 3 days gave significantly higher fresh yield than the control treatment, tended to give higher fresh yield (356.76 g per plot) than those of other treatments and had the significantly least numbers of aphid and *Plutella xylostella*, 2.0 and 1.1 per 5 plants, respectively. Therefore using the physic nut meal at 2 tons per rai is sufficient to improve soil fertility for growing Chinese Kale in organic farming.

Keyword : Physic Nut Meal (*Jatropha curcas* Linn.), Organic Fertilizer, Farm Manure, Bioextract, Chinese Kale (*Brassica alboglabra* Bailey)