

PORRAMIN KUNTAYOM : RADIO FREQUENCY TREATMENTS ON
LARGE PLATE FOR INSECT IN TOBACCO. THESIS ADVISOR : ASSOC.
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RADIO FREQUENCY/ELECTRIC FIELD/ TOBACCO

Insect pest control in agricultural products has long been interesting topics because insect pests are damaging to agricultural products especially agricultural products that need to be quarantined. This problem is solved by using chemicals to fumigation which bringing gaseous chemicals into one area without leakage for get rid of insects that come with the products. Methyl bromide is a common chemical used in fumigation and used for a long time because have a good qualities in fumigation but there are many restrictions on the use such as step of fumigation, duration, space for fumigation and chemical hazards to workers and environmental hazards. Later, other substances were used. Substances that are used to replace methyl bromide is phosphine but when used for a long time, the pest resistance to the substance. So want to avoid the use of chemicals. The use of electromagnetic fields has been studied to solve such problems.

This research uses electric field to heat the dielectric to the apply insect pests control associate to agricultural crops. The plant that the researcher is interested is tobacco. It will work on the radio frequency spectrum or microwave into a material with polar molecules. Both formats differ in the frequency bands used. That frequency affects the depth of the waves that can penetrate into the material. Therefore, the researcher will study the removal of tobacco moth by radio frequency to eliminate tobacco moth. It enhances the quality of tobacco products. Inheritance of electromagnetic wave

propagation in heating in tobacco. Make the right time and temperature. Include study on the effects of spectrum and power on tobacco and tobacco moth.



School of Electronic Engineering

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