

Thesis Title            The Use Of Dried *Piper belte* Linn. Leaf Extract in  
Controlling Soybean Antracnose.

Name                    Janpenporn Anusasanee

Degree                  Master of Science (Appropriate Technology for  
Resource Development)

Thesis Supervisory Committee

                         Sompong    Thongchai,                    M.Sc.

                         Orawan     Ruangsomboon,                   M.Sc.

                         Ronnapop   Banjerdcherdchoo,       M.Sc.

Date of Graduation    9 JANUARY B.E.2538 (1995)

#### ABSTRACT

Owing to Environmental and Agricultural residue from the used of chemical for agriculture to be wide spread and more increasing by agriculturist now. The way for solving, the processing for replace the present agricultural chemical, to be more interesting and the most important for environmental conservation and reduce this problem. The crude extracts from Dried *Piper betle* Linn. leaf, the most toxic in laboratory, were extracted by Loud-Khow with 35 % of alcohols at duration 48 hrs. and 1:4 concentration. It inhibited growth of *Colletotrichum truncatum* what caused of Soybean anthracnose. Mixed crude extracts with PDA medium incubated for *C.truncatum*, the average of colony was 1.82 cm. and 3.12 cm. for PDA medium which mixed with pure Loud-Khow. All duration and concentration of the crude extracts extrated by alcohol 95 % were able to inhibited the growth of *C. truncatum* 100 % but the average of colony was 0.9 cm. for PDA medium

which mixed with pure alcohol 95 %. In Greenhouse, observed symptomatic of plants after at first sprayed crude extracts extracted by Loud-Khow at duration 48 hrs. and 1:4 concentration on 4 blocks of plants on 5 days old, second sprayed 2 blocks on 40 days old. Result revealed that symptomatic of plants on 12 days old at average 1.5556 after first sprayed less symptom than on 5 days old at average 1.5993. Twenty-six days old, the least of symptomatic of plants and increased on 40 days old so that second sprayed crude extracts would control seed-borne pathogens. Result revealed 14.5 % of seeds which twice sprayed crude extracts on plants less the growth of pathogens than 26 % of seeds which one sprayed and 46 % of seeds which not sprayed, the most of growth of pathogens.