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Bionomics of *Liposcelis bostrychophilus* (Badonnel) a pest on Herbal Materials prepared for Export Market.

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Production of export items entirely depends on their demands as well as the quality of the export products. Herbal tea bags produced by Rural Enterprise Network (REN) has very high demand in Eastern European countries. Medicinal herbs such as Polpala, Iramusu and Ranawara grown by small scale farmers are send to the REN industries to produce herbal tea bags to export. During 2005, herbal materials prepared using dried polpala (*Aerva lantana*) were heavily infested by a small insect pest. Since pest population was building up very rapidly production of polpala herbal bags was temporarily halted and samples were sent to the Department of Zoology for the identification of the pest.

The pest was identified as *Liposcelis bostrychophilus* (Badonnel, 1931) a psocopteran species belongs to family Liposcelidae. The adult is soft bodied and about 1.00.mm long. They had five nymphal instars and life cycle completes within 30-40 days. They are able to reproduce parthenogenetically and population size increase very rapidly when conditions are favorable with adequate food availability. The pest known to have a wide host range including natural plants present study revealed that infestation was occurred in the warehouse since *L. bostrychophilus* was recorded only in the-end product sample.

Although this pest was recorded from polpala, laboratory studies revealed that *L. bostrychophilus* can grow effectively in other materials such as Ranawara, Iramusu, and paper tissues. They had similar population build up in all materials indicating the wide host range of the pest. Further, food preference studies indicated that Iramusu was the most preferred food material while paper tissues was the least preferred.

Since these herbal materials produce for export market use of synthetic pesticides should be avoided and experiments were conducted to find the effective non chemical methods to control the pest.

Solar drying of food materials efficiently reduced the rapid build up of population level and it was considered as one of the suitable non chemical method to control the pest. Samples dried for 30 minutes reduced the population density by 50% and this method could practice at farmer level very effectively. Estimated incipient lethal high temperature for *L. bostrychophilus* is 40 °C and keeping sample at this temperature for 2-3 hours will kill the pests without damaging the quality of the product.

Since the pest can grow on paper materials use of other materials for packing the final product is recommended.