

8R-13,44

EVALUATION OF SYNTHETIC PYRETHROIDS AND BACILLUS THURINGIENSIS TO CONTROL VEGETABLE

INSECT PESTS IN BRAZIL. Barbosa, S. and França, F.H. (UEPAE-BSB/EMBRAPA C.P. 1316 Brasília-DF-BRAZIL).

The diamondback moth (Plutella xylostella L.), the melonworm (Diaphania hyalinata L.) and the pickleworm (D. nitidalis (Stoll)) are among the most important insect pests of vegetables in Brazil. P. xylostella is the key pest in most of the Brazilian cole crop production areas with suspected resistance to most organophosphate and carbamate insecticides. Both Diaphania species are getting harder to control with traditional insecticides and the fast rate of development of the cucurbit fruits limits the choice to short term residual insecticides. Several experiments were carried out in Brasília, at the EMBRAPA'S Truck Crop Experiment Station, during 1979, to evaluate the performance of three different pyrethroids and B. thuringiensis, when compared to traditional sprayings, to control P. xylostella on cabbage and the Diaphania complex on cucumber and on zucchini squash. Decamethrin, permethrin and fenvalerate gave outstanding control of the three mentioned species with seven-day interval applications. Decamethrin and fenvalerate were very efficient at small dosages as 5g a.i./ha while permethrin gave the same results at 50g a.i./ha. B. thuringiensis at the rate of 500g/ha of Thuricide provided outstanding control of P. xylostella larvae and fair control of the Diaphania larvae. ➔

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RESEARCH ON THE USE OF SYNTHETIC PYRETHROIDS FOR ORCHARD PEST CONTROL IN POLAND.

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A number of compounds including: permethrin, decamethrin, cypermethrin and fenvalerate were investigated for three to five years in field experiments. Their effectiveness was evaluated in controlling important pests, such as: codling moth, Laspeyresia pomonella L., winter moth, Operophtera brumata L., black current twig borer, Synanthedon tipuliformis Cl., leaf miners /Lithocolletis sp. and Scitella sp./, leaf rollers /Tortricidae/ etc. using both, standard and ULV spraying techniques. Influences of certain pyrethroids on beneficial arthropods are reported on the bases of laboratory trials. Advantages and disadvantages of their use in commercial orchards are discussed.

8P,1

MASS REARING OF THE ORIENTAL FRUIT FLIES IN TAIWAN. Chiu, H.T. (Taiwan Prov.

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In Taiwan, based on rearing facilities, we can currently produce 25 million pupae per week. In the rearing room, adult flies provide with sucrose and protein mixtures. Ten days after emergence, eggs were collected twice per week, and were seeding into the larval media. Matured larvae pop into sawdust and pupate. Currently, we got 55-60 per cent of pupal recovery from eggs. Pupae were sieved from sawdust and kept temperature at 27 or 20°C to adjust the appropriate pupal period. Under this rearing methods, the estimation of the rearing material cost is ca. US\$ 20.48 per million pupae.