CONTROL OF SWEET POTATO WEEVIL, 1975: Plots size was ten square meters and each treatment was replicated four times in a RCB experimental field design. Insecticides were applied when plants began to initiate root development. Emulsifiable concentrate and wettable powder formulations were applied in one liter of spray solution per plot at monthly intervals.

Two criteria were considered in the evaluation of control effectiveness. Root samples of 2 kg from each plot were placed in an automatic food slicer, cut into 2.5 m slices and the number of larvae, pupae and adults were counted. In addition, ten sections of stems, 2.5 m long, were taken from each plot, dissected and the number of weevils counted. Two field evaluations were completed in 1975, but only one provided significant control data. The most effective insecticides in this test were Surecide, Lannate, Hostathion and Furadan.

Insecticide and rate (Kg a.i./ha) | Manufacturer or formulator | No. of weevils in 10 stem sections 10 cm long<sup>a</sup> | No. of weevils in 2 kg root sample<sup>b</sup> | Yield (metric ton/ha)<sup>2</sup>
--- | --- | --- | --- | ---
Surecide 25EC 1.0 | SUMITOMO | 3.75 | 6.50 | 12.08
Furadan 41F 1.0 | FMC | 3.75 | 6.50 | 12.08
Lannate 90WP 1.0 | DuPONT | 8.00 | 9.00 | 9.68
Diazinon 60EC 1.0 | BEER SHEVA | 13.75 | 23.75 | 8.81
Hostathion 40EC 1.0 | HOECHST | 4.25 | 9.00 | 10.33
Diazinon 14G 2 | 21 lb R.L | 1.6 7000 11.9 1.9 2.1 1.0 3.6 87.9 99.6 191.1 435.5 1.8 46.0

<sup>a</sup>Root index (harvested roots, all grades): 1 • excellent, 2 • good, 3 • fair, 4 • poor, 5 • very poor.
<sup>b</sup>Insect index (harvested roots, all grades): degree of damage: 1 • none, 2 • slight, 3 • moderate, 4 • severe.
<sup>c</sup>Dollar value based on yield only with no adjustment for nematode and insect damage or overall quality. Rates used: Jumbo = $1.75/bu, No. 1 = $3.50/bu, Conner = $1.00/bu.

SWEET POTATO: Ipomoea batatas 'Tainung No. 57'

Sweet potato weevil: Cylas formicarius elegantulus (Sum.)

The Asian Vegetable Research and Development Center
Shanhua, Tainan, (741)
Taiwan, Republic of China

S. P. Kung, C. Y. Su, and R. I. Rose

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