FIELD AND CEREAL CROPS

Insecticide and Acaricide Test 5:130

(continued Pless and Shamiyeh)

Percent whorls infested

Treatment and lb ai/acre* 6-7 6-22 8-7

Soil treatment

Furadan 10G 2.0 9.40 a** 1.25 a
Furadan 10G 1.0 16.40 b 3.00 ab

In-whorl treatments

Furadan 4F 2.0 0.00 a 0.25 a
Furadan 4F 1.0 0.00 a 1.50 a
Penncap-M 2E 0.5 0.25 a 0.32 a 1.00 a
Penncap-M 2E 1.0 2.57 a 1.00 a
Lannate 1.8L 1.0 3.62 a 1.50 a
Untreated check 20.17 b 19.77 b 6.00 b

*Greeneville

**Means followed by the same letter are not significantly different - Duncan's New Multiple Range Test.

CORN (FIELD): Zea mays L., 'Louisiana White'

Fall armyworm; Spodoptera frugiperda (J.E. Smith)
Sugarcane borer; Diatraea saccharalis (F.)
Southwestern cornborer; D. grandiosella (L.)

T. E. Reagan and J. L. Flynn
Department of Entomology
402 Life Science Building
Louisiana State University
Baton Rouge, Louisiana 70803

FALL ARMYWORM AND STALKBORER CONTROL IN FIELD CORN, 1979: Insecticide sprays were applied biweekly to corn located at the St. Gabriel
Experiment Station near Baton Rouge, for season long control of foliage feeding and stalkboring insects. A randomized complete block experimental design
was used with treatments replicated 5 times. Individual plots were 15 ft rows spaced 3 ft apart (0.0031 acre) bordered on each side by vacant rows. Each
spray application was applied to the corn canopy in water at 30 psi with a compressed air knapsack sprayer that delivered 25 gallons finished formulation/acre
application. Insecticide applications were begun when corn was 3 ft high, and continued for 3 applications, August 17, 31, and September 13. The efficacy of
insecticide treatments was determined by destructive sampling and infestation counts 3 days after each application. Stalks were selected systematically for the
sampling of live insects and stalkborer exit holes. Analyses of variance were conducted on armyworm and stalkborer infestation counts, in addition to yield
adjusted for plant stand via covariance analysis.

Significant reductions (P* = 0.05) in numbers of armyworms and damage occurred among the treatments. Azodrin 5 at 1.0 lb ai/acre provided better control
(P<0.05) and higher yields (P<0.05) than all other treatments. The 0.2 and 0.1 lb rates of Pounce 3.2 EC were generally superior to Larvin 75W (0.45 and 0.225
lb), and Furadan 4F consistently had more armyworms (P<0.05) resulting in less yield (P<0.05) than the untreated check.

Live armyworms/ Tassel Avg. no. Yield
Insecticide and lb ai/a 25 plants rating Diatraea/lO plants2 bu/acre

Azodrin 5 1.0 35 a 4.4 a 3 a 138.8 a
Orthene 75S 0.75 65 be 3.4 c 7 a 87.0 b
Pounce 3.2EC 0.2 43 a 3.2 c la 77.6 b
Larvin 75W .45 46 ab 3.8 b 7 a 75.0 b
Larvin 75W .225 48 abc 3.8 b 3 a 58.9 c
Check (untreated) 86 d 2.2 d 17 b 39.4 d
Furadan 4F 0.75 129 e 1.8 e 6a 15.9 e

1 Based on counts of live larvae 3 days after each application.
2 Visual damage rating; 1-5, higher number indicates less damage; Avg. 15 replications.
3 Determined by destructive plant sampling; D. saccharalis (sugarcane borer) and D. grandiosella (southwestern corn borer).
4 Significant at P<0.05 Duncan's Multiple Range Test; Yields adjusted via covariance analysis, plant stand variation.

FIELD CORN, WESTERN CORN ROOTWORM CONTROL, 1979: Six soil insecticides were evaluated in Franklin County, Idaho. Plots were arranged
in randomized complete block design. Corn was planted June 5, in 32 inch rows. All materials were applied at 1 lb ai/acre in a 6 inch band over row. Each
treatment was replicated 4 times utilizing plots 3 rows wide x 100 ft. Corn was gravity-irrigated as required and harvested for silage. Insecticide treatments
were evaluated, July 25, for root damage by digging 10 equally spaced plants from the center row of each treatment. Roots were evaluated for rootworm feeding
damage using a 1-6 damage scale (1 = no discernible damage; 6 = three or more nodes of roots destroyed).

Larval populations were considered heavy within the plot area. All insecticide treatments significantly reduced rootworm damage.

Treatment and lb ai/acre Root rating

Dyfonate 20G 1.0 2.4 a
Furadan 10G 1.0 2.7 ab
Counter 15G 1.0 2.8 bc
Amaze 20G 1.0 3.9 bc
Dyfonate 15G 1.0 3.1 c
Daconit 15G 1.0 3.5 d
Check 4.3 e

Numbers followed by same letter not significantly different (P = 0.05).