WHITE GRUB CONTROL IN FIELD CORN, 1981: 'Northrup King PX79' field corn was sod-planted on May 15, on the VPISU Agronomy Farm, Montgomery Co, VA. The land had been in sod for several years. At the time of planting the water content of the soil was 26.2% and the pH was 6.3. A tank-mix of Paraoquat, Atrazine, and Dual was applied prior to planting. Three rates of BAS 263 I (3.6, 2.4, 1.2 oz ai/1000 ft) were applied on May 18 with a Gandy granular applicator using a 7-in band at the height of 5 in. Core samples were replicated 4 times on completely randomized plots measuring 12 ft x 50 ft (each plot was 4 rows wide x 35 in rows). White grub populations were estimated before planting by taking 4-in core samples over the entire treat area. The grub population averaged 12 grubs per 4-in core. Control was evaluated on Jul 23. Ten cores (4 in), consisting of 1 corn root system and the associated soil, were taken from each plot (40 cores per treatment) to determine the average number of white grubs per core.

### Treatment oz ai/1000 ft # Samples Average # of white grubs/core% Control
3.6 40 0.50ab 23.1
2/4 40 0.28b 57.7
1.2 40 0.70a 0.0
Check 40 0.65a --

*Treatments with same letter are not significantly different (P = 0.05) DMRT.

**Percent control is calculated based on the untreated check.

Northern corn rootworm: Diabrotica longicornis (Say)

NORTHERN CORN ROOTWORM CONTROL IN FIELD CORN, 1981: Six granular insecticidal treatments were compared for efficacy in the control of Northern corn rootworm larvae in field corn (Trojan TB115). The test was conducted in a no-till field (rye cover) which had received no treatments of soil insecticides in the past. Corn had been planted continuously for 5 years in this field. The treatments were arranged in a completely randomized design. Each treatment was replicated 4 times in 12 ft wide x 50 ft long plots (4 rows/plot, 30 in spacing). A Gandy granular applicator was used for in-furrow and banded placement of the products. On Jun 30, 40 root systems/treatment were dug from the ground (10 systems/plot x 4 replicates, from 2 center rows), washed of soil and visually rated using the 1-6 damage system (1 = no feeding damage and 6 = 3 or more root nodes pruned to 1.5 in of plant stem). No significant differences were observed between treatments.

### Treatment and lb ai/acre Method of application Avg root damage rating*
Counter 156 2.09 In-furrow 1.15a
Dyfonate 20G 1.09 In-furrow 1.25a
Furadan 10G 1.50 In-furrow 1.15a
Furadan 15G 1.50 In-furrow 1.075a
Lorsban 15G 0.82 In-furrow 1.125a
Lorsban 15G 1.09 In-furrow 1.175a
Check 1.225a

*Averages with same letter are not significantly different (P = 0.05) DMRT.

CONTROL OF COMMON STALKBORER ON FIELD CORN, 1982: At-planting and rescue treatments and a semi-conventional cultural method were applied to no-till field corn on the VPISU Agronomy farm in Blacksburg, VA. A particular area was chosen which had suffered a heavy stalkborer infestation the previous year. The soil type was clay loam and the pH was 6.3. The test plots were arranged in a completely randomized block design, measuring 4 rows (30 in spacing) x 50 ft x 4 replicates, from 2 center rows. The cultural treatment was conducted May 11. The rye cover crop was cut with a hammer-knife mower and then the soil was tilled to a depth of 3-4 in. The analysis of variance (P = 0.05). Ca 3.3 in of rain fell within 10 days of the rescue treatment. A moderate to heavy stalkborer infestation prevailed throughout the test area at the time of rescue treatments. The analysis indicated that feeding damage in the untreated control was significantly greater than all other treatments. Significant variations in damage levels were also evident among several treatments. Yield differences were found to be nonsignificant, although in some instances parallels were seen with certain damage levels. The pyrethroid rescue treatments had the lowest damage ratings and the highest yields, all with greater than 30 metric tons/ha.