

Stith, Department of Agronomy and Plant Genetics, such analyses were made using roots of first-leaf and four- to six-leaf plants from 18 varieties of cotton grown under uniform conditions in growth chambers. We could not find any correlation between carbohydrate concentrations in roots and the degree of wilt symptoms manifested by these varieties in the field.

COTTON YIELD BY SEEDING RATE AND NEMATODE CONTROL 1/

EVCO FARMS - ART PACHECO - MARANA, 1971

Jim Armstrong, Pima County Agricultural Agent

<u>Treatment</u>	<u>Lint Yield</u> <u>2/</u> lbs./Acre	<u>Nematode Root</u> Knot Rating <u>3/</u>
Seeded @ 16 lbs./A + 30 lbs. Temik	481	.95
Seeded @ 11 lbs./A (No Temik)	440	
Seeded @ 16 lbs./A (No Temik)	432	2.3

1/ First pick only and field sustained 20% loss due to hail damage.

2/ Average of three replications of twelve rows for seeding rate comparison. Temik was applied to 36 consecutive rows. All 36 rows included in yield data.

3/ Relative root-knot rating based on:
 0= No galling. 1= trace to light galling (1 to 25% of root system galled).
 2= light to moderate (26 - 50% of roots galled). 3= moderate to heavy
 (51 - 75% of roots galled). 4= heavy to severe (76 - 100% of roots galled).

Planting Date - April 24
 Cotton Variety - DPL 6137
 Water - 3.85 A.F.
 Fertilizer - 173 lbs. N/A

Harvest Date - November 4
 Soil Type - Sandy Loam
 Previous Crop - Sorghum
 Temik - Applied sidedress 6/15

This test was primarily designed to compare two seeding rates. The application of Temik for nematode control was added at a late date. As the Temik treatment was not originally planned for the test it was applied to the 36 rows bordering the seeding rate comparison and replication was not practical nor possible.

Based on this limited trial it was obvious that increasing the seeding rate from 11 to 16 pounds per acre actually decreased yield slightly. This supports previous work which has indicated that 10-12 pounds is an adequate rate for maximum yields.

Temik was used rather than Telon for nematode control as the value of Telon has already been established in previous tests but has been considered uneconomic on short staple cotton. Temik would have some additional advantage over Telon in that it offers some systemic insect control also.

At current prices and application rate Temik would also be uneconomic. There is reason to believe that the dosage can be reduced to 20 pounds and a reduction in price has been indicated. If this be the case then perhaps Temik could become an economic treatment for nematodes along with its added insect control potential.

Further testing at lower rates is planned for 1972.