Table 3. Seed germination and seedling vigor of seed collected from healthy and Phymatotrichum infected cotton plants[a]

		Seed Germination		Seedling First Wt (grams)	
		Infected	Healthy	Infected	Healthy
Upland[b]		23.5/30	27.1/30	80.9	99.2
	%	78.3	90.3		
Pima[c]		25.2/30	26.4/30	08.0	120.9
	%	84.0	88.0		

[a]Seed germination and fresh weights were determined 21 days after planting.
[b]Data represent averages for the 37 Upland fields sampled.
[c]Data represents averages for the 9 Pima fields sampled.

Table 4. Fiber quality analysis from healthy and diseased Pima cotton[a] (Marana 1981)

	Healthy	Diseased
Wt. seed cotton[b]	97.6A	84.8A
% lint turnout	38.4A	39.4A
Seed index	11.9A	10.7B
Length (M)	72.7A	71.3A
(UHM)	1.4A	1.4A
Uniformity	51.9A	52.6A
Strength	4.6A	4.9A
Fineness	4.5A	4.1B

[a]Quality data represent the average of 9 fields.
[b]Numbers in each row followed by the same letter were not statistically different at p = 0.05.

NEMATOCIDE TRIALS

C. R. Farr

The withdrawal of DCBP from commercial use caused concern among farmers about cost and effectiveness of other nematocides against root knot nematodes in cotton. Need for tests in 1981 and 1982 also seemed apparent because acreages over 225,000 in Maricopa County contributed to considerable continuous cotton history in fields. This aids the development of nematode populations and may show greater response to nematocide use.

Amount of yield increase varied from farm to farm, according to infestation levels. This emphasizes the need to inspect the previous crop for infestation levels. Gross return per acre varied from $94.20 to $291.60 when 60 cents per pound of lint is used for value. The third farm treatment was not profitable because of low nematode populations.

PHILLIPS FARMS-GOODYEAR

Treatment	Seed Cotton, Lbs per Repl.				Ave Seed Cotton/rep	Seed Cotton Per Acre	Lbs. Lint 1/ Per Acre
	I	II	III	IV	Ave.		
Telone 5.7 gal	1485	1430	1380	1500	1449	3926	1370
EDB 3.0 gal	1175	1225	1210	1350	1240	3360	1173
Check	935	--	--	--	935	2533	884

1/Lint Turnout: 34.9% Plot size: 4 rows 1270 Hilong

COKER BROS.-BUCKEYE

Treatment [2]	Seed Cotton Per Repl.-1st Pick I	II	III	IV	Ave	1st Pick [3] Lbs Lint Per Acre	2nd Pick Lbs Lint Per Acre	Lbs Lint Per Acre
Telone 7½ gal.	1140	1170	1295	1195	1198	1083	159	1242
Telone 5 gal.	1120	1130	1095	1190	1134	1025	142	1167
Telone 2½ gal.	1060	1075	995	1165	1074	971	140	1111
No Treatment	775	870	840	975	865	825	129	954
Vydate	1000	1045	1000	-	1015	969	143	1112
No Treatment	775	870	840	975	865	825	129	954

[2]Telone injection preplant in April, Vydate injected June 24
[3]Turnout: 1st pick - 32.4%, 2nd pick - 29.1%

MOORE RANCHES-WADDELL

Treatment	Lbs. Seed Cotton Per Rep I	II	III	IV	Lbs Lint 1st Pick	Lbs Lint 2nd Pick	Total Lint Per Acre
Nemacur 10 lbs.	1380	1320	1280	1230	1344	120	1449
Temik 14 lbs.	1350	1370	1320	1230	1329	104	1448
Check	1330	1300	1280	1170	1296	103	1399

Crop history: C-C-C-C, Variety-DPL 90, Planting date-4/12 Nematocide sidedressed-4/8, 12 irrigations, 6 insecticide applications, final irrigation-9/3, defoliation 10/6, harvest 10/14, 1/8. Turnout: 1st Pick 33.98% 2nd Pick 27.78%

GROSS RETURN PER TREATMENT

Treatment	Yield Increase Lbs. Lint	Gross Return @ 60¢ per lb. lint
	Coker Bros.	
7½ gal Telone		$172.80
5 gal Telone		137.80
2½ gal Telone		94.20
2 qt Vydate		94.80
	Phillips Farms	
5.7 gal Telone		$291.60
3 gal EDB		103.80
	Moore Farms	
Temik	50	$30.00
Nemacur	49	29.40