

TITLE:

Evaluation of increased carrier volume for control of peanut pod rot in west Texas #1

AUTHORS:

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MATERIALS AND METHODS:

Plot size: 2 rows by 50 feet, six replications (40 in. centers)
Planting date: 1-May
Cultivar: Gregory
Application dates: 75 and 105 DAP
Digging date: 10-Oct
Harvest date: 18-Oct

RESULTS AND DISCUSSION:

A field trial was conducted on a grower field in western Gaines County (32°43'23.06"N 103°2'7.46"W) near Hobbs NM to evaluate the performance of the fungicides Abound, Convoy and/or Ridomil at two carrier volumes (20 and 40 gal ac⁻¹). *Rhizoctonia* pod rot was the target disease. Overall, pod rot pressure was low due to the hot, dry conditions experienced throughout much of the growing season.

While low levels of pod rot were observed no differences among the fungicide programs or carrier volumes were observed (Table 5). Pod yields ranged from 3615 to 4774 lb ac⁻¹ with an average 4206 lb ac⁻¹. Yields were greatest for treatments 8, 4 and 2, lowest for treatments 6 and 7 and intermediate for 3, 1 and 5. Grades were not different for any of the treatments averaging 71.8% sound mature kernels plus sound splits. The percentage of diseased kernels has been correlated to pod rot incidence in other studies (Woodward, unpublished). Although not significant, the levels of diseased kernels (DK) were numerically lower for all fungicide programs compared to the non-treated control (which approached 5%). *Sclerotinia* blight was also observed in this field; however, levels were low and did not differ among treatments (data not shown). Phytotoxicity was not observed throughout the duration of this trial (data not shown). Additional studies evaluating these products under higher disease pressure is needed.

Table 5. Effect of fungicide regimes comprised of Abound, Convoy and or Ridomil at two carrier volumes (20 and 40 gallons per acre) on leaf spot, Southern blight and pod rot control and yield, grade (smk+ss) and diseased kernels (DK)

Trt	Fungicide(s)	Volume (gal ac ⁻¹)	Application (DAP)	Pod rot (1-5 scale)		Pod yield (lb ac ⁻¹)		smk+ss (%)		DK (%)	
1	Control	n/a	n/a	1.8	a	3,887	b	74.2	a	4.0	a
2	Ridomil	20	75 & 105	1.5	a	3,719	b	71.8	a	3.4	a
3	Ridomil	20	75 & 105	1.5	a	4,250	ab	73.0	a	2.7	a
4	Abound	20	75 & 105	1.7	a	3,907	b	73.0	a	1.6	a
5	Abound Convoy	20	75 105	1.7	a	4,638	a	74.4	a	2.7	a
6	Ridomil	40	75 & 105	1.5	a	3,918	b	72.6	a	3.3	a
7	Ridomil	40	75 & 105	1.6	a	3,907	b	72.4	a	2.9	a
8	Abound	40	75 & 105	1.5	a	4,097	ab	72.4	a	2.0	a
9	Abound	40	75 & 105	1.6	a	4,731	a	73.1	a	2.9	a
10	Convoy	20	75 & 105	1.7	a	3,622	b	73.0	a	2.6	a
11	Convoy	40	75 & 105	1.6	a	3,900	b	72.7	a	3.0	a
12	Convoy Abound	40	75 105	1.5	a	3,688	b	71.4	a	2.2	a
LSD ($P \leq 0.10$)				n.s.		794		n.s.		n.s.	