

Peanut Tolerance to Valor Herbicide Applied At-crack at Seminole, TX, 2008

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MATERIALS AND METHODS:

Plot Size:	4 rows by 75 feet, 3 replications
Planting Date:	May 3
Variety:	Flavorranner 458
Application Date:	At-crack, May 13
Harvest Date:	October 31

RESULTS AND DISCUSSION:

Valor SX is registered for use in peanut for control of annual broadleaf weeds such as ivyleaf morningglory. Valor SX may be applied prior to planting or preemergence. Preemergence applications must be made within 48 hours after planting and prior to peanut emergence. Applications made after plants have begun to crack or after they have emerged may result in severe injury. Splashing from heavy rains or cool conditions at or near emergence may also result in injury and even delayed maturity and yield loss. In 2008, several studies were conducted across the High Plains to gain experience and confidence with this relatively new peanut herbicide. At this location in west Gaines County (Mr. Chuck Rowland), Flavorranner 458 was planted on May 3. The initial study was treated on May 5, which was a true preemergence application, but in this study we wanted to look at tolerance of emerged peanuts. Applications were made on May 13 to peanuts that started to crack the soil around May 9. Valor was again applied at 0, 2, and 3 ounces per acre. This was not an appropriate application timing according to the label. Rainfall May 13-15 totaled 0.3 inches. Peanut stand was recorded on May 27 (3 weeks after planting). No difference in stand was observed between the non-treated control and the Valor treatments (Table 1). Visual injury and peanut canopy width was recorded on May 27, Jun 16, Jul 9, and Sep 18. Neither injury (greater than 1%) nor canopy width differences were noted between the Valor treatments and the non-treated control (Table 1). Peanuts were dug on October 10 and harvested with a small-plot peanut trasher on October 31. Peanut yield from the Valor-treated plots ranged from 6097 to 6364 lb/A, which were not less than the non-treated control (5849 lb/A). Weed control observations were not made at this location because the primary focus was crop response. A blanket application of Treflan (in a 16-in band) and Cadre postemergence effectively controlled carelessnessweed (Palmer amaranth), tumbleweed (Russian thistle), and annual morningglory (iveleaf). Results from this study and several others across the High Plains suggest that Valor is a safe option to peanut producers in our region. Although peanut injury has been observed in other states and in the High Plains when rates exceeded labeled recommendations, we feel that this herbicide is a good option for peanut growers for early-season weed control (4 to 6 weeks of soil residual activity).

Table 1. Peanut injury and yield as affected by Valor applied at-crack in Seminole, TX, 2008^a.

Treatment	Rate lb ai/A	Prod. oz/A	Timing	Stand	Peanut Injury				Peanut Canopy Width				Yield lb/A
				May 27 Plants/3 ft.	May 27 -----%-----	Jun 16	Jul 9	Sep 18	May 27	Jun 16	Jul 9	Sep 18	
Non-treated	---	---	---	10.0	0	0	0	0	4.2	11.4	22.6	32.7	5849
Valor SX	0.064	2	AC	10.0	1	0	0	0	4.2	11.3	21.9	33.3	6364
Valor SX	0.096	3	AC	10.7	1	0	0	0	4.2	11.1	21.8	34.0	6097
CV				8.63	158.75	0.0	0.0	0.0	0.0	4.65	3.72	2.74	0.09
pValue				0.6049	0.4444	1.0000	1.0000	1.0000	1.0000	0.8655	0.5040	0.3086	0.0002
LSD _(0.10)				NS	NS	NS	NS	NS	NS	NS	NS	NS	16.52

^aAbbreviations: AC, at-crack