

cies being considered separately. Individual weed control ratings were made for careless weed, goosegrass, purslane, spiny amaranth, and yellow sedge. These data, along with the ratings for crop tolerance to the nine herbicide treatments and the check, are given in Table 6.

The data show that all chemical treatments resulted in excellent weed control, and few of the responses differed significantly from others. The only treatment resulting in broadleaf weed control inferior to others was EPTC at 5 pounds. This was entirely due to the high tolerance of spiny amaranth to this chemical (Fig. 2). At the first observation date, CDAA gave nearly complete control of all weed species, missing only an occasional broadleaf weed at the lower 6 pound rate (Fig. 3). After 11 more days and 2.17 inches of additional rainfall, the CDAA treatments had weakened slightly, permitting some development of several species, including the yellow sedge. While PCP persisted as a good broadleaf weed killer, it was weaker than the other two chemicals on grass at both observation dates (Fig. 4). In most of these PCP plots, surviving grass appeared in streaks, indicating an uneven distribution of the chemical at the time of application.

TABLE 6.—WEED CONTROL AND SOYBEAN TOLERANCE RATINGS FROM HERBICIDE SECONDARY EVALUATION TRIAL, RECORDED AUGUST 2, 4½ WEEKS AFTER PLANTING—EXPERIMENT 57-2.

Treatment		Weed Control Ratings*					Crop tolerance ratings*
Chemical	lb/A	Careless weed	Goose-grass	Purs-lane	Spiny amaranth	Yellow sedge	
CDAA	6	8.9	7.3	8.9	8.1	6.8	10.0
	9	9.0	8.2	8.9	7.8	7.2	9.6
	12	9.1	7.4	8.7	7.8	7.0	9.8
EPTC	5	9.3	7.8	8.8	7.5	8.2	10.0
	10	9.4	9.0	9.2	8.3	9.4	10.0
	15	9.4	9.2	8.6	8.6	9.6	10.0
PCP	10	8.6	6.9	8.7	9.1	8.1	10.0
	15	9.8	7.3	9.2	9.3	8.2	10.0
	20	9.8	7.7	9.2	9.4	8.8	10.0
Check - cultivated		9.0	9.0	9.0	9.0	9.0	10.0
L.S.D. (5% level)		1.1	1.0	N.S.	0.8	1.2	N.S.

\* Weed control and crop tolerance ratings were based on a 0 to 10 scale, with high values indicating favorable results. Data are means of 12 observations taken from three variety blocks and four replications.