(i.e. a soil K level of 50 ppm or 120 lbs per acre K_2O equivalent) we would be recommending for this soil 240-250 lbs K_2O per acre. It is not until the soil potassium result exceeds 100 to 160 ppm depending upon cation exchange capacity that we recommend the minimum of 50-60 lbs of K_2O per acre. Similarly with phosphorus, the minimum amount recommended only occurs when the soil test is greater than 20 ppm P in the very high testing range for soil phosphorus.

The recommendations for corn silage, alfalfa hay, grass-legume hay and pasture on the soil analysis reports have now been released to growers for the spring of 1982. We will continue the analysis of our corn survey, including other nutrients as determined by the plasma. While we believe our recommendations to be correct it will be useful in 1982 to continue the fertility experiments at the Agricultural Experiment Station Farm in South Deerfield since now after one year of no potassium addition the soil analysis results suggest that in 1982 the corn crop will need substantial additions.

EVALUATION OF HERBICIDES FOR ANNUAL WEED CONTROL IN CORN

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Several herbicides were tested (i) to determine the response of annual weeds and corn, and (ii) to demonstrate this response to growers, extension agents, students, and others interested in weed control. The experiment was conducted at the Agricultural Experiment Station, South Deerfield.

All herbicides were applied with a backpack CO_2 sprayer at 22 psi in 40 gal/ac. Preplant incorporated treatments were applied May 18 and incorporated immediately in one direction with a disc. Corn (Agway 584S) was planted May 19. Preemergence treatments were applied May 21 and post-emergence treatments were applied June 9 when grasses were at the 2-leaf stage, corn was at the 3-4 leaf stage and broadleaf weeds were at the 2nd pair true leaf stage. Treatments were laid out in a randomized block design and replicated three times. Plot size was 10 by 20 feet and each plot contained 3 rows of corn.

The area was heavily infested with fall panicum and crabgrass (large and hairy). There was also a uniform but light infestation of barnyard grass, common lambsquarters, redroot pigweed, common ragweed, and carpet weed. Rainfall was 3.12 inchs in May and 10.26 inches in June. Plots were rated on July 12. The results on weed control and crop injury are presented in Table 1. Grain and silage yields will be determined later.

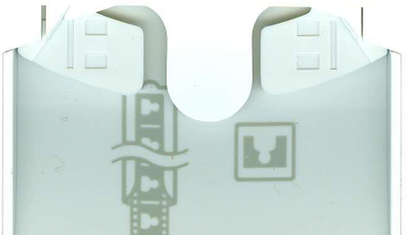

Table 1. Annual weed control in corn.

Treatment	Rate (lb/ac)	Method of Application	% Control Compared to Check		Crop Injury %
			Grass	Broadleaf	
1) Sutan+ + Atrazine	4.0 + 1.0	PPI	100	95	0
2) Sutan+ + Bladex	4.0 + 1.5	PPI	100	95	0
3) Eradicane + Atrazine	4.0 + 1.0	PPI	100	100	0
4) Eradicane + Bladex	4.0 + 1.0	PPI	95	85	0
5) Untreated Check	-	-	0	0	0
6) Lasso + Atrazine	1.5 + 1.0	Pre	95	100	0
7) Dual + Atrazine	1.5 + 1.0	Pre	100	100	0
8) Lasso + Bladex	1.5 + 1.5	Pre	100	100	0
9) Dual + Bladex	1.5 + 1.5	Pre	100	95	0
10) Lasso + Banvel	1.5 + 0.5	Pre + EP	100	100	32
11) Dual + Banvel	1.5 + 0.5	Pre + EP	95	95	25
12) Bladex + Atrazine	2.0 + 1.0	Pre	95	100	0
13) Bladex	2.5	EP	100	100	0
14) Atrazine	2.5*	EP	100	100	0
15) Prowl + Atrazine	1.5 + 1.25	Pre	100	100	0
16) Lasso + Basagran	1.5 + 1.0*	Pre + EP	85	95	0
17) Dual + Basagran	1.5 + 1.0*	Pre + EP	80	80	0
18) Untreated Check	-	-	0	0	0
19) Lasso + Banvel II	1.5 + 0.5	Pre + EP	95	100	22
20) Dual + Banvel II	1.5 + 0.5	Pre + EP	80	100	17

* Crop oil concentrate was applied at the rate of 1 qt/ac.

A similar experiment was also conducted in Westport, Bristol County. The results of this trial will be discussed during the Field Day.