NOT FOR PUBLICATION

EVALUATION OF HERBICIDES FOR SELECTIVE WEED CONTROL IN CORN IN 1961

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During 1961 various herbicides were evaluated on corn under conditions of both the Willamette Valley and the Snake River irrigated area. The primary purpose of the trials in the Snake River area was to obtain soil persistence data on triazine herbicides compared to Randox T. This same type of data was the primary purpose of trials carried on at the Southern Oregon Branch Experiment Station, Medford.

Work in the Willamette Valley was for the purpose of evaluating and comparing Lorox (Dupont Experimental Herbicide 326) with the presently utilized materials in corn.

Results to date would indicate that pre-emergence applications of Lorox compare very favorably in weed control with Atrazine which is a primary herbicide utilized in the Willamette Valley. Lorox appears to be more effective on barnyard grass which is a serious weed problem under Willamette Valley conditions. This weed is somewhat tolerant of Atrazine.

The safety margin with Lorox appears to be much less than with Atrazine, but preliminary trials would indicate it may be satisfactory to warrant an ultimate use recommendation.

There needs to be considerable study of the soil persistence of Lorox under arid irrigated conditions to determine whether or not the soil residues will lead to the same problems that have prevented recommendation of Atrazine under these types of growing conditions.

Randox T generally continued to show good weed control under most conditions but the safety margin on corn under certain circumstances appears to be narrow. This is particularly true where soil incorporation was practiced.

Preliminary indications in the arid irrigated areas would indicate Randox T gives a soil residual problem on sensitive crops such as soybeans and beans. This may also be a problem in sugar beets and potatoes which are frequently rotated on corn land.

WEED CONTROL IN CORN

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Luther Fitch

In most areas a highly satisfactory job of chemical weed control is now possible in field corn with either the triazines or Randox T. In this area of eastern Oregon, however, Simazine and Atrazine have presented a residual problem with injury to small grains following corn to the extent that they cannot be recommended; while severe injury showed up in soybeans this past season where they followed Randox T on corn.

Since Atrazine or similar triazine materials are such excellent herbicides for weed control in corn, and as some soybean acreage is apparently coming into this area, it seems highly desirable that these apparent residue problems be further investigated and alleviated if possible.

A plot was set aside for this purpose in 1961. Herbicides applied are shown in Table W-3. The pre-plant materials were spring-toothed and double harrowed into the soil.

The location was carried through a full season of irrigation and was fall plowed, thus a good test of chemical residue should be possible. This plot area will be seeded to spring barley in 1962 which will serve as an indicator of triazine carryover and soybeans can be added as an indicator of possible Randox T residues.

Table W-3. WEED CONTROL IN CORN

Treatments		Corn	Broadleaf
Chemical	Pounds/A.	Injury	Weed Control
	--Pre-plant--		
Atrazine	1	0.0	9.0
	2	0.0	9.0
Trietazine	1	0.0	6.8
	2	0.0	7.8
G-34698	1	0.0	9.0
	2	0.0	9.0
G-34696	1	0.0	5.0
	2	0.0	7.7
Randox T	2	0.0	8.0
	4	0.0	8.0
	6	2.3	9.6
	--At Emergence--		
Randox T	2	0.0	6.0
	4	0.7	4.0
	6	0.0	5.3

Pre-plant applications made May 16.

Post-emergence applications made May 24.

Ratings: June 16 with 0 = no control; 10 = 100 per cent control

Predominant weeds: Redroot pigweed.

WEED CONTROL IN CORN

East Farm, O.S.U.
Pre-plant 6-10-61
Pre-emerg. 6-16-61
Post-emerg. 7-19-61
Notes Taken October 4, 5 & 7, 1961

Herbicide	Appl. Time	Rate lb/A	Barnyard Grass				Pigweed				Corn Injury			
			R_1	R_2	R_3	Ave	R_1	R_2	R_3	Ave	R_1	R_2	R_3	Ave
Atrazine	pre e	1½	7.0	9.0	9.0	8.3	10.0	10.0	10.0	10.0	0.0	0.0	0.0	0.0
Atrazine	pre e	2	8.0	9.5	9.5	9.0	10.0	10.0	10.0	10.0	0.0	0.0	0.0	0.0
DP 326	pre e	1	7.0	9.0	8.0	8.0	9.0	9.0	8.0	8.7	0.0	0.0	0.0	0.0
DP-326	pre e	2	9.0	8.0	9.0	8.7	10.0	9.0	10.0	9.7	0.0	0.0	0.0	0.0
DP-326	pre e	3	9.5	9.0	9.5	9.3	10.0	10.0	10.0	10.0	0.0	0.0	0.0	0.0
DP-326	pre e	4	9.5	9.0	9.5	9.3	10.0	10.0	10.0	10.0	0.0	0.0	0.0	0.0
Dp-326	pre e	5	10.0	9.0	10.0	9.7	10.0	10.0	10.0	10.0	0.0	0.0	4.0*	1.3
Atrazine	post	1½	0.0	3.0	1.0	1.3	10.0	8.0	10	9.0	0.0	0.0	0.0	0.0
Atrazine	post	2	0.0	2.0	2.0	1.3	0.0	10.0	10.0	10.0	0.0	0.0	0.0	0.0
DP-326	post	1	1.0	0.0	0.0	0.3	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DP-326	post	2	0.0	0.0	5.0	1.7	1.0	3.0	5.0	3.0	0.0	0.0	0.0	0.0
DP-326	post	3	3.0	3.0	2.0	2.7	8.0	3.0	2.0	2.5	0.0	0.0	0.0	0.0
DP-326	post	4	5.0	0.0	8.0	6.5	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0
DP-326	post	5	7.0	6.0	7.0	6.7	10.0	8.0	5.0	7.7	0.0	0.0	0.0	0.0

* There was no evidence of dead plants, therefore, the injury must be due to an inhibition of germination or some agency, such as pheasants, removing the plants.

QUACKGRASS CONTROL IN CORN

Location #2, D. Harnish, Albany, Oregon
Dalapon & amitrol T applied May 25, 1961
Pre emergent applied June 5, 1961
Post emergent applied July 13, 1961

Notes Taken:
August 21, 1961

Herbicide	Time Applied	Rate lb/A	Quackgrass Control R_1	R_2	R_3	Ave	Remarks
1) Dalapon	prior	10					
Atrazine	pre	2	9.0	9.5	9.0	9.2	
2) Dalapon	prior	10					
Randox T	pre	4.5	6.0	8.5	8.0	7.5	
3) Dalapon	prior	10					
DP 326	pre	3	5.0	8.0	6.0	6.7	
4) Dalapon	prior	10					
DP 326	post	3	6.0	3.0*	5.0	4.7 (5.5)	½ of the plot was poor.
5) Dalapon	prior	10					
DP 326	pre	1.5					
DP 326	post	1.5	9.0	5.0	7.0	7.0	
6) Dalapon	prior	5					
Atrazine	pre	2	7.0	9.5	2.0	6.2	
7) Dalapon	prior	5					
Randox T	pre	4.5	0.0	2.0	8.0	3.3	
8) Dalapon	prior	5					
DP 326	pre	3	2.0	7.0	7.0	5.3	
9) Dalapon	prior	5					
DP 326	post	3	5.0	6.0	9.0	6.7	
10) Dalapon	prior	5					
DP 326	pre	1.5					
DP 326	post	1.5	3.0	8.0	5.0	5.3	
11) Atrazine	pre	2	2.0	9.0	3.0	4.7	
12) Randox T	pre	4.5	0.0	0.0	6.0	2.0	
13) DP 326	pre	3	7.0	0.0	7.0	4.7	
14) DP 326	post	3	7.0	0.0	0.0	2.3	
15) DP 326	pre	1.5					
DP 326	post	1.5	1.0	8.5	9.0	6.2	

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QUACKGRASS CONTROL IN CORN

Location #2, D. Harnish, Albany, Oregon
Dalapon & amitrol T applied May 25, 1961
Pre emergent applied June 5, 1961
Post emergent applied July 13, 1961

Notes Taken:
August 21, 1961

Herbicide	Time Applied	Rate lb/A	Quackgrass Control R_1	R_2	R_3	Ave	Remarks
16) Dalapon	prior	10	6.0	7.0	0.0	4.3	
17) Dalapon	prior	5	7.0	0.0	9.0	5.3	
18) Atrazine	pre	2					
Atrazine	post	1	9.0	9.0	8.0	8.7	
19) Amitrol T	prior	2.5					
Atrazine	pre	2.0	9.0	8.0	8.5	8.5	
20) Atrazine	post	1	8.5	2.0	8.0	6.2	
21) Amitrol T	prior	2.5	8.0	6.0	9.5	7.8	
22) Check	-----	0.0	0.0	0.0	0.0	0.0	

prior = Applied one week before the quackgrass was tilled under prior to planting.
pre = Pre-emergence
post = Post-emergence

The pre-emergence material was incorporated with irrigation, immediately following application.

Amitrol T and Dalapon were sprayed with Dynawet added to the mixture.

WEED CONTROL IN CORN, (Originally quackgrass control in corn)

K. Holmes, Albany, Oregon
Dalapon & Amitrol T applied May 13, 1961
Pre-emergence applied May 26, 1961
Post-emergence applied July 7, 1961
Notes Taken June 28, 1961 & August 24, 1961

	Herbicide	Time Applied	Rate lb/A	Corn injury R_1	R_2	R_3	Ave
1)	Dalapon Atrazine	prior pre	10 2	0.0	0.0	0.0	0.0
2)	Dalapon Randox T	prior pre	10 4.5	1.0	0.0	0.0	0.3
3)	Dalapon DP 326	prior pre	10 3	0.0	0.0	0.0	0.0
4)	Dalapon DP 326	prior post	10 3	0.0	1.0	0.0	0.3
5)	Dalapon DP 326 DP 326	prior pre post	10 1.5 1.5	0.0	0.0	0.0	0.0
6)	Dalapon Atrazine	prior pre	5 2	0.0	0.0	0.0	0.0
7)	Dalapon Randox T	prior pre	5 4.5	0.0	0.0	1.0	0.3
8)	Dalapon DP 326	prior pre	5 3	0.0	0.0	0.0	0.0
9)	Dalapon DP 326	prior post	5 3	0.0	0.0	0.0	0.0
10)	Dalapon DP 326 DP 326	prior pre post	5 1.5 1.5	0.0	0.0	0.0	0.0
11)	Atrazine	pre	2	----	0.0	0.0	0.0
12)	Randox T	pre	4.5	0.0	0.0	----	0.0
13)	DP 326	pre	3	0.0	1.0	0.0	0.3
14)	DP 326	post	3	6.0	3.0	4.0	4.3
15)	DP 326 DP 326	pre post	1.5 1.5	----	3.0	1.0	2.0
16)	Dalapon	prior	10	----	0.0	1.0	0.5
17)	Dalapon	prior	5	----	0.0	0.0	0.0
18)	Atrazine Atrazine	pre post	2 1	----	2.0	0.0	1.0
19)	Amitrol T Atrazine	prior pre	2.5 2	0.0	0.0	0.0	0.0
20)	Atrazine	post	1	6.0	5.0	4.0	5.0
21)	Amitrol T	prior	2.5	0.0	0.0	0.0	0.0
22)	Check			0.0	0.0	0.0	0.0

WEED CONTROL IN CORN, (Originally quackgrass control in corn)

K. Holmes, Albany, Oregon
Dalapon & Amitrol T applied May 13, 1961
Pre-emergence applied May 26, 1961
Post-emergence applied July 7, 1961
Notes Taken June 28, 1961 & August 24, 1961

	Herbicide	Time Applied	Rate lb/A	Barnyard Grass				Quackgrass			
				R_1	R_2	R_3	Ave	R_1	R_2	R_3	Ave
1)	Dalapon Atrazine	prior pre	10 2	7.0	9.0	9.0	8.3	10.0	9.0	9.0	9.3
2)	Dalapon Randox T	prior pre	10 4.5	9.0	8.0	9.0	8.7	8.0	5.0	9.0	7.3
3)	Dalapon DP 326	prior pre	10 3	10.0	9.0	8.0	9.0	10.0	9.0	8.0	9.0
4)	Dalapon DP 326	prior post	10 3	5.0	8.0	7.0	6.7	----	8.0	----	8.0
5)	Dalapon DP 326 DP 326	prior pre post	10 1.5 1.5	6.0	8.0	7.0	7.0	9.0	5.0	----	7.0
6)	Dalapon Atrazine	prior pre	5 2	2.0	9.0	9.0	6.7	9.0	1.0	9.0	6.3
7)	Dalapon Randox T	prior pre	5 4.5	8.0	9.0	9.0	8.7	4.0	5.0	6.0	5.0
8)	Dalapon DP 326	prior pre	5 3	9.0	9.0	8.0	8.7	----	9.0	----	9.0
9)	Dalapon DP 326	prior post	5 3	9.0	3.0	0.0	4.0	9.0	3.0	----	6.0
10)	Dalapon DP 326 DP 326	prior pre post	5 1.5 1.5	7.0	9.0	1.0	5.7	8.0	5.0	----	6.5
11)	Atrazine	pre	2	0.0	3.0	8.0	3.7	----	----	7.0	7.0
12)	Randox T	pre	4.5	4.0	4.0	0.0	2.7	5.0	0.0	0.0	1.7
13)	DP 326	pre	3	4.0	5.0	5.0	4.7	5.0	0.0	5.0	3.3
14)	DP 326	post	3	1.0	0.0	0.0	0.3	7.0	8.0	0.0	5.0
15)	DP 326 DP 326	pre post	1.5 1.5	2.0	0.0	4.0	2.0	----	0.0	4.0	2.0
16)	Dalapon	prior	10	0.0	2.0	6.0	2.7	----	5.0	----	5.0
17)	Dalapon	prior	5	3.0	2.0	0.0	1.7	----	1.0	0.0	0.5
18)	Atrazine Atrazine	pre post	2 1	0.0	2.0	7.0	3.0	----	2.0	8.0	5.0
19)	Amitrol T Atrazine	prior pre	2.5 2	9.0	0.0	1.0	3.3	9.0	----	----	9.0
20)	Atrazine	post	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21)	Amitrol T	prior	2.5	0.0	0.0	0.0	0.0	----	0.0	0.0	0.0
22)	Check			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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WEED CONTROL IN CORN, (Originally quackgrass control in corn)

K. Holmes, Albany, Oregon
Dalapon & Amitrol T applied May 13, 1961
Pre-emergence applied May 26, 1961
Post-emergence applied July 7, 1961
Notes Taken June 28, 1961 & August 24, 1961

	Herbicide	Time Applied	Rate lb/A	Night shade				Corn injury			
				R_1	R_2	R_3	Ave	R_1	R_2	R_3	Ave
1)	Dalapon	prior	10								
	Atrazine	pre	2	9.0	9.5	9.0	9.2	0.0	4.0	0.0	1.3
2)	Dalapon	prior	10								
	Randox T	pre	4.5	2.0	5.0	5.0	4.0	3.0	5.0	2.0	3.3
3)	Dalapon	prior	10								
	DP 326	pre	3	9.0	9.0	8.0	8.7	0.0	7.0	6.0	4.3
4)	Dalapon	prior	10								
	DP 326	post	3	0.0	0.0	2.0	0.7	1.0	6.0	1.0	2.7
5)	Dalapon	prior	10								
	DP 326	pre	1.5								
	DP 326	post	1.5	8.0	9.0	0.0	5.7	4.0	2.0	0.0	2.0
6)	Dalapon	prior	5								
	Atrazine	pre	2	9.0	9.0	9.0	9 0	1.0	0.0	0.0	0.3
7)	Dalapon	prior	5								
	Randox T	pre	4.5	1.0	5.0	0.0	2.0	3.0	2.0	0.0	1.7
8)	Dalapon	prior	5								
	DP 326	pre	3	8.0	5.0	8.0	7.0	2.0	3.0	1.0	2.0
9)	Dalapon	prior	5								
	DP 326	post	3	5.0	0.0	0.0	1.7	0.0	2.0	0.0	0.7
10)	Dalapon	prior	5								
	DP 326	pre	1.5								
	DP 326	post	1.5	7.0	6.0	5.0	6.0	0.0	0.0	0.0	0.0
11)	Atrazine	pre	2	1.0	5.0	10.0	5.3	3.0	0.0	0.0	1.0
12)	Randox T	pre	4.5	0.0	0.0	3.0	1.0	1.0	0.0	0.0	0.3
13)	DP 326	pre	3	9.0	9.0	8.0	8.7	0.0	0.0	0.0	0.0
14)	DP 326	post	3	0.0	0.0	1.0	0.3	0.0	0.0	0.0	0.0
15)	DP 326	pre	1.5	0.0	7.0	6.0	4.3	0.0	0.0	0.0	0.0
	DP 326	post	1.5								
16)	Dalapon	prior	10	0.0	5.0	0.0	1.7	0.0	4.0	0.0	1.3
17)	Dalapon	prior	5	0.0	0.0	4.0	1.3	0.0	0.0	0.0	0.0
18)	Atrazine	pre	2	2.0	9.0	8.0	6.3	0.0	0.0	0.1	0.3
19)	Amitrol T	prior	2.5	7.0	9.0	10.0	8.7	0.0	1.0	0.0	0.3
	Atrazine	pre	2								
20)	Atrazine	post	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21)	Amitrol T	prior	2.5	3.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
22)	Check			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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WEED CONTROL IN CORN, (Originally quackgrass control in corn)

K. Holmes, Albany, Oregon
Dalapon & Amitrol T applied May 13, 1961
Pre-emergence applied May 26, 1961
Post-emergence applied July 7, 1961
Notes Taken June 28, 1961 & August 24, 1961

Herbicide	Time Applied	Rate lb/A	Barnyard Grass				Pigweed			
			R_1	R_2	R_3	Ave	R_1	R_2	R_3	Ave
1) Dalapon	prior	10								
Atrazine	pre	2	8.0	9.5	8.0	8.5	--	--	--	---
2) Dalapon	prior	10								
Randox T	pre	4.5	9.5	9.5	9.5	9.5	--	10.0	--	10.0
3) Dalapon	prior	10								
DP 326	pre	3	10.0	9.5	9.0	9.5	10.0	0.0	8.0	6.0
4) Dalapon	prior	10								
DP 326	post	3	8.0	10.0	9.0	9.0	----	----	10.0	10.0
5) Dalapon	prior	10								
DP 326	pre	1.5								
DP 326	post	1.5	9.0	9.0	8.0	8.7	----	----	10.0	10.0
6) Dalapon	prior	5								
Atrazine	pre	2	8.0	8.0	9.0	8.3	----	10.0	----	10.0
7) Dalapon	prior	5								
Randox T	pre	4.5	8.0	9.0	9.0	8.7	----	----	1.0	1.0
8) Dalapon	prior	5								
DP 326	pre	3	9.0	9.0	9.0	9.0	----	0.0	10.0	5.0
9) Dalapon	prior	5								
DP 326	post	3	9.0	5.0	4.0	6.0	10.0	----	0.0	5.0
10) Dalapon	prior	5								
DP 326	pre	1.5								
DP 326	post	1.5	8.0	9.0	0.0	5.7	----	10.0	----	5.0
11) Atrazine	pre	2	0.0	4.0	7.0	3.7	10.0	----	----	5.0
12) Randox T	pre	4.5	5.0	8.0	2.0	5.0	----	----	0.0	0.0
13) DP 326	pre	3	5.0	8.0	7.0	6.7	----	----	----	----
14) DP 326	post	3	0.0	0.0	0.0	0.0	----	0.0	----	0.0
15) DP 326	pre	1.5	2.0	0.0	6.0	2.7	----	----	0.0	0.0
DP 326	post	1.5								
16) Dalapon	prior	10	8.0	8.0	9.0	8.3	----	----	1.0	1.0
17) Dalapon	prior	5	6.0	7.0	3.0	5.3	----	0.0	----	0.0
18) Atrazine	pre	2	2.0	0.0	5.0	2.3	2.0	----	5.0	3.5
Atrazine	post	1								
19) Amitrol T	prior	2.5	9.0	0.0	9.0	6.0	10.0	----	----	10.0
Atrazine	pre	2								
20) Atrazine	post	1	0.0	0.0	0.0	0.0	----	0.0	----	0.0
21) Amitrol T	prior	2.5	3.0	0.0	0.0	1.0	----	0.0	----	0.0
22) Check			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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WEED CONTROL IN CORN, (Originally quackgrass control in corn)

K. Holmes, Albany, Oregon
Dalapon & Amitrol T applied May 13, 1961
Pre-emergence applied May 26, 1961
Post-emergence applied July 7, 1961
Notes Taken June 28, 1961 & August 24, 1961

	Herbicide	Time Applied	Rate lb/A	Mustard R_1	Mustard R_2	Mustard R_3	Mustard Ave	Lambsquarter R_1	Lambsquarter R_2	Lambsquarter R_3	Lambsquarter Ave
1)	Dalapon	prior	10								
	Atrazine	pre	2	10.0	9.0	10.0	9.7	9.0	10.0	10.0	9.7
2)	Dalapon	prior	10								
	Randox T	pre	4.5	9.0	10.0	0.0	9.7	2.0	10.0	4.5	5.5
3)	Dalapon	prior	10								
	DP 326	pre	3	10.0	0.0	10.0	6.7	10.0	0.0	10.0	6.7
4)	Dalapon	prior	10								
	DP 326	post	3	9.0	0.0	10.0	6.3	0.0	0.0	6.0	2.0
5)	Dalapon	prior	10								
	DP 326	pre	1.5								
	DP 326	post	1.5	10.0	10.0	10.0	10.0	10.0	10.0	6.0	8.7
6)	Dalapon	prior	5								
	Atrazine	pre	2	10.0	10.0	10.0	10.0	9.0	10.0	9.0	9.3
7)	Dalapon	prior	5								
	Randox T	pre	4.5	9.0	5.0	0.0	4.7	2.0	0.0	0.0	6.7
8)	Dalapon	prior	5								
	DP 326	pre	3	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
9)	Dalapon	prior	5								
	DP 326	post	3	6.0	0.0	0.0	2.0	5.0	0.0	0.0	1.7
10)	Dalapon	prior	5								
	DP 326	pre	1.5								
	DP 326	post	1.5	10.0	10.0	5.0	8.3	7.0	0.0	5.0	4.0
11)	Atrazine	pre	2	10.0	10.0	10.0	10.0	2.0	10.0	10.0	7.3
12)	Randox T	pre	4.5	10.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0
13)	DP 326	pre	3	10.0	10.0	10.0	10.0	10.0	8.0	8.0	8.7
14)	DP 326	post	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15)	DP 326	pre	1.5	9.0	10.0	10.0	9.7	2.0	0.0	0.0	0.7
	DP 326	post	1.5								
16)	Dalapon	prior	10	0.0	0.0	1.0	0.3	0.0	0.0	0.0	0.0
17)	Dalapon	prior	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18)	Atrazine	pre	2	2.0	10.0	10.0	7.3	2.0	10.0	8.0	6.7
	Atrazine	post	1								
19)	Amitrol T	prior	2.5	10.0	10.0	10.0	10.0	9.0	9.0	10.0	9.3
	Atrazine	pre	2								
20)	Atrazine	post	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21)	Amitrol T	prior	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22)	Check			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(Cont)

WEED CONTROL IN CORN, (Originally quackgrass control in corn)

K. Holmes, Albany, Oregon
Dalapon & Amitrol T applied May 13, 1961
Pre-emergence applied May 26, 1961
Post-emergence applied July 7, 1961
Notes Taken June 28, 1961 & August 24, 1961

	Herbicide	Time Applied	Rate lb/A	Night shade				Lambsquarter			
				R_1	R_2	R_3	Ave	R_1	R_2	R_3	Ave
1)	Dalapon	prior	10								
	Atrazine	pre	2	10.0	10.0	10.0	10.0	10.0	----	----	10.0
2)	Dalapon	prior	10								
	Randox T	pre	4.5	7.0	6.0	8.0	7.0	10.0	----	----	10.0
3)	Dalapon	prior	10								
	DP 326	pre	3	10.0	10.0	7.0	9.0	10.0	10.0	----	10.0
4)	Dalapon	prior	10								
	DP 326	post	3	0.0	0.0	5.0	1.7	----	----	0.0	0.0
5)	Dalapon	prior	10								
	DP 326	pre	1.5								
	DP 326	post	1.5	9.0	5.0	0.0	4.7	10.0	----	2.0	6.0
6)	Dalapon	prior	5								
	Atrazine	pre	2	9.0	10.0	10.0	9.7	10.0	10.0	----	10.0
7)	Dalapon	prior	5								
	Randox T	pre	4.5	8.0	10.0	1.0	6.3	----	10.0	0.0	5.0
8)	Dalapon	prior	5								
	DP 326	pre	3	10.0	4.0	8.0	7.3	10.0	10.0	8.0	9.3
9)	Dalapon	prior	5								
	DP 326	post	3	0.0	3.0	3.0	2.0	----	----	----	---
10)	Dalapon	prior	5								
	DP 326	pre	1.5								
	DP 326	post	1.5	10.0	----	9.0	9.5	10.0	----	1.0	5.5
11)	Atrazine	pre	2	0.0	10.0	10.0	6.7	5.0	10.0	----	7.5
12)	Randox T	pre	4.5	0.0	3.0	8.0	3.7	0.0	----	8.0	4.0
13)	DP 326	pre	3	8.0	10.0	9.0	9.0	----	----	----	---
14)	DP 326	post	3	8.0	10.0	5.0	7.7	10.0	10.0	----	10.0
15)	DP 326	pre	1.5	10.0	8.0	8.0	8.7	10.0	----	10.0	10.0
	DP 326	post	1.5								
16)	Dalapon	prior	10	0.0	0.0	0.0	0.0	0.0	0.0	----	0.0
17)	Dalapon	prior	5	0.0	0.0	3.0	1.0	0.0	----	2.0	1.0
18)	Atrazine	pre	2	10.0	10.0	0.0	6.7	10.0	----	0.0	5.0
	Atrazine	post	1								
19)	Amitrol T	prior	2.5	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
	Atrazine	pre	2								
20)	Atrazine	post	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21)	Amitrol T	prior	2.5	4.0	0.0	0.0	1.3	0.0	0.0	----	0.0
22)	Check			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(Cont)

YIELD DATA, WEED CONTROL EXPERIMENT IN FIELD CORN, 1961 SEASON

Southern Oregon Branch Experiment Station, Medford

Treatment, lb/Acre	Yield, Bu/A, Shelled Corn, 15% Moisture				Lbs. per ear, 15% moist,	Ears harvested
	Rep I	Rep II	Rep III	Mean	Mean of 3 Reps	Total of 3 Reps
1. Check	111.05	89.11	93.37	97.85	0.41	214
2. Atrazine, 1.2 lbs.	115.26	96.08	93.79	101.71	0.44	208
3. Atrazine, 2.4 lbs.	113.49	107.83	83.29	101.54	0.43	208
4. Atrazine, 3.2 lbs.	123.48	102.26	97.74	107.83	0.43	219
5. Eptam, 2 lbs.	115.26	100.08	94.31	103.22	0.43	211
6. Eptam, 4 lbs.	99.77	89.42	87.81	92.33	0.44	190
7. du Pont 326, 1 lb.	117.91	97.12	95.61	103.55	0.41	224
8. du Pont 326, 3 lbs.	102.00	109.02	98.57	103.20	0.42	217
9. Dinitro amine, 3 lbs.	98.52	102.11	88.18	96.27	0.41	207
10. 2,4-D amine, 1 lb.	107.62	104.86	101.90	104.79	0.41	226
11. Randox T, 2.8 lbs.	105.90	99.20	84.80	96.63	0.44	204
12. Randox T, 5.6 lbs.	113.08	88.43	97.59	99.70	0.45	197

WEED CONTROL IN SWEET CORN
OREGON AGRICULTURAL EXPERIMENT STATION - 1961

Garvin Crabtree Horticulture Department

Several herbicides were evaluated for selective weed control in sweet corn in 1961. Various methods of application were compared and a comparison of planting depths was made to determine possible interactive effects with Eptam applications. With the favorable germination conditions existing at the time of planting, the deep planting emerged only about one day after the shallow planting. The weed population was light and consisted primarily of redroot pigweed (Amaranthus retroflexus). All herbicide treatments resulted in satisfactory control. Ratings of crop response were made four weeks after planting and crop yields measured at normal time of harvest. This information is presented in the following table.

Chemical	Rate per acre (lbs active)	Timing	Method of Application	Planting	Crop Response Rating 1/	Yield per plot 2/
Eptam	3	preplant	disc deep	deep	3	18.8
"	"	"	" "	shallow	2	19.0
"	"	"	blade deep	deep	1	15.9
"	"	"	" "	shallow	1	18.2
"	"	"	blade shallow	deep	2	18.0
"	"	"	" "	shallow	1	19.8
Randox-T	4.5 (Randox)	"	disc shallow	"	3	8.3
"	"	"	blade shallow	"	3	16.6
"	"	"	blade deep	"	5	11.9
"	"	post-plant	surface	"	0	17.7
"	"	at emergence	"	"	0	19.6
Randox-T (Granular)	"	post-plant	"	"	0	18.6
Atrazine	2	preplant	disc shallow	"	0	19.1
"	"	"	blade shallow	"	1	22.3
"	"	post-plant	surface	"	0	21.0
"	"	at emergence	"	"	0	21.9
"	"	post emergence	"	"	0	19.9
Atrazine (Granular)	"	post-plant	"	"	0	18.8
DuPont 326	2	preplant	blade shallow	"	0	19.7
"	"	post-plant	surface	"	0	21.4
"	"	at emergence	"	"	1	17.3
"	"	post emergence	"	"	2	19.6
Untreated check					0	17.8

1/ Response rating 0= no effect, 10= complete kill.
2/ Yield in pounds of graded husked ears.

Blade applications were made with a single nozzle underneath a 12 inch sweep. Deep applications were approximately four inches and shallow applications approximately two inches.

It will be noted that the Eptam incorporated by deep discing resulted in observable crop injury early in the season but this was not reflected in loss of yield. All plots of Randox-T that were incorporated into the soil showed some plant injury in the ratings, but of these, applications from the deep blade or incorporated by shallow discing were all that resulted in important yield losses.