

1. Inspect wheat fields early in the season for weeds. Wild oat and canarygrass must be treated from the 2 leaf stage to no later than the 5 leaf stage.
2. If wild oat and canarygrass are sighted later in the season remove by hand roguing before they mature.
3. If a small infestation is left unchecked and wheat is grown consecutively for 3 years, yield of wheat will be reduced.

#### Hoelon (diclofop)

This was the first year Hoelon was used commercially in Arizona. Control of wild oat was often excellent. However, some less desirable results occurred. Some of the problems we saw were:

1. Wild oat was too large and application rate was too low. Use 2 2/3 pt/A for 2 to 3 leaf wild oat. Use 3 1/3 pt/A for wild oat in 4 leaf stage. Hoelon is not effective when wild oat is larger than 4 leaf stage.
2. Improper application. The aerial applicator was not able to apply the herbicide uniformly. Wide swathing resulted in poor weed control. You need very accurate application of herbicide to achieve control.

Hoelon will give only partial control of canarygrass. It will not control rabbitsfoot grass. Do not tank mix with a broadleaf herbicide.

#### Carbyne (barban)

Good control of canarygrass can be achieved with Carbyne. Heavy infestations may require a split application. Control of wild oat should be commercially successful but 80 to 90% control is about all you receive. The field may still look weedy at harvest but yield of wheat is normal.

#### Avenge (difenzoquat)

The use of Avenge for wild oat control in durum wheat is not suggested. Many cultivars of durum wheat are much too sensitive to Avenge.

#### Prowl (pendimethalin)

This herbicide has been tested by American Cyanamid Co. for preemergence control of canarygrass and some annual broadleaf weeds. It has worked reasonably well on some soil types, particularly the lighter soils which do not tend to crack when dry. Some selectivity problems can occur where the wheat seed is not covered with soil during planting and the subsequent application of Prowl comes into contact with the seed.

## Weed Control in Wheat I

Stanley Heathman and Sam Stedman

Herbicides applied January 27, 1981 in 40 gpa water, full coverage to the foliage of the plants. The Produra wheat was planted over 38 in. beds. The soil was a silty loam, temperature 75° F, and winds were calm. Plot size was 6 beds wide and 25 ft. long, replicated 3 times. Seed species were well distributed in the test area.

#### Growth stage at time of application

Wheat - tillering - 6 to 10 in.  
 Silversheath knotweed - 3 in. tall  
 Black mustard - 2 to 6 in. tall  
 London rocket - 2 in. tall  
 Annual yellow sweetclover - cotyledon to 1 trifoliate leaf  
 Redstem filaree - 6 in. rosette  
 Mediterraneangrass and wild barley - seedling to 2 in. tall

% crop injury and control of weeds - March 30, 1981  
when wheat was in early heading stage

Treatment	lb/A	% wheat injury	% control					
			Knotweed	Mustard	London rocket	Sweet- clover	Filaree	Grass
Bromoxynil	.75	0	99	100	100	100	13	0
Tackle	.25	7	43	100	93	99	99	7
Tackle	.5	10	26	98	87	100	99	17
Tackle	.75	26	23	100	93	100	100	5
Glean	.008	0	57	100	100	100	100	0
Glean	.016	0	80	100	100	73	100	13
Glean	.03	3	77	100	100	100	100	0
Glean	.06	16	95	100	100	100	100	30
Check		0	0	0	0	0	0	0

In this test:

1. All applications of Tackle resulted in chlorosis and temporary stunting of the wheat for 2 to 3 weeks following treatment. Stunting from Glean varied by application rate.
2. Bromoxynil gave excellent control of all weeds except filaree.
3. All herbicide treatments controlled mustard, London rocket, and sweetclover.

### Weed Control in Wheat II

Stanley Heathman and Matthew Mastic

Herbicides applied January 27, 1981 in 40 gpa water full coverage to the foliage of the plants. Soil was a silty loam, temperature 70° F with no wind. Plot size was 20 by 25 ft., replicated 3 times. Produra wheat was planted on the flat and irrigated up. The last evaluation was made February 24, after which the grower applied Banvel over the entire field.

#### Growth stage at time of application

Wheat - tillering  
 Little malva - 6 leaf  
 Black mustard - 2 to 6 in. tall.  
 Redstem filaree - 2 in. rosette stage  
 Annual yellow sweetclover - cotyledon to 1 trifoliate leaf  
 Canarygrass - tillering