Trial 25

Brome and Barley Grass Control in a Wheat and Barley Crop Sponsored by IAMA

Aim: to determine the best technique for controlling brome grass in wheat (Ouyen) and barley (Galleon)

Results:

	Status	Cost $/ha	yield t/ha	
			Barley	Wheat
Control			4.76	6.16
pre-sowing				
Trifluralin 1L	R	5.20	4.92	6.16
Trifluralin 2L	NR	10.40	4.61	5.75
early post emergent #				
Lexone 180g	NR	15.12	4.71	6.67
Lexone 280g	NR	23.52	5.33	7.34
Isoproturon (IPU) 1.5L	NR	18.00	5.11	6.41
Lexone 50g + Sertin Plus 250ml + 0.1% wetter	NR	12.00	4.72	6.92
*early post emerged knockdowns**				
Gramoxone 600ml at 0.5 leaf stage of crop	NR	4.20	4.69	6.10
RoundUp 500ml at 0.5 leaf stage of crop	NR	5.25	2.85	4.20
Gramoxone 600ml at 1.5 leaf stage of crop	NR	4.20	3.37	4.10
RoundUp 500ml at 1.5 leaf stage of crop	NR	5.25	1.23	2.41
Significant difference			**P<0.05 LSD=0.70**	**P<0.05 LSD=0.92**

- early post emergent sprays were applied at the 3 leaf stage for wheat, 4 leaf stage for barley. Soil was damp, some dew on the crop and conditions were cool (10°C)

* - early post emergent knockdown sprays were applied at the half leaf and at the one and a half leaf stages of the wheat and barley

Interpretation: (Note - this was a relatively weed free site)

Barley - There were no significant differences in yield between the pre-sowing treatments (Trifluralin at 1 and 2L/ha) and the early post emergent sprays (Lexone, Lexone + Sertin Plus, and IPU) used. Gramoxone used at the half leaf stage was safe (no significant difference in yield to the above treatments), however using RoundUp at either the ½ or 1½ leaf stages or Gramoxone at the 1½ leaf stage caused too much crop damage and yield suffered.

Wheat - There were significant differences in yield between the pre-sowing treatments and the early post emergent sprays. Lexone at 180 and 280 g/ha, and Lexone at 50g + Sertin Plus at 250ml gave the highest yields. The use of Lexone on wheat is not registered. Similar to the barley trial, the use of Gramoxone at the ½ leaf stage appeared to be quite safe, whereas at the later stages or the use of RoundUp caused significant and large yield losses.

Commercial Practice: Opportunities exist for using Trifluralin for the control of brome and barley grass but only at low populations of these weeds. Using 2L/ha of Trifluralin (in a cultivated seed bed and harrowed after application) is not recommended on wheat - too much crop damage will result in a yield penalty. The use of knockdown sprays after crop emergence is a dangerous practice - Gramoxone appears to be safe but only if used at the ½ leaf stage of the crop - if applied later severe crop damage can result. The use of RoundUp (translocated herbicide) is not recommended at any stage after crop emergence.

The use of Lexone on both barley and wheat was quite safe in 1996, spray conditions were quite good with moist soil and some dew on the crop, and no heavy rain occurred within a week of applying the herbicide.