

Study Name: Wild oat control with Affinity TM and Affinity BS tank mixed with Rimfire or Axial (0713)

Objectives: Evaluate Affinity formulations tank mixed with Rimfire or Axial for wild oat control.

Results:

'Glenn' spring wheat was seeded April 25 at 90 lb/A into 7.5-inch rows in a conventionally tilled field. Herbicide treatments were applied postemergence on June 4 at the 5-leaf wheat stage. Wild oat was in the 3- to 4-leaf stage and densities averaged 5-10 plants per sq ft. Individual plots were 10 x 30 ft and replicated three times.

No crop injury was observed with any treatment. Faster herbicidal activity was observed with Axial compared to Rimfire, which is typical of ACCase vs. ALS inhibitors. Approximately 3 weeks after treatment, wild oat control with Rimfire treatments ranged from 60-67%, while control with Axial was 94-97%. However, by mid-July wild oat control was similar for all treatments (>96%). Despite the slower activity on wild oat, wheat yields with Rimfire were similar to Axial treatments. Grass control antagonism was minimal with any broadleaf tank mix partner. Including Affinity BS as a broadleaf tank mix partner resulted in similar wild oat control to Bronate Advanced and averaged only 1-6% lower wild oat control compared to Affinity TM.

There were low densities of quackgrass in the study area. Rimfire provided good quackgrass control, whereas, Axial had no activity on quackgrass.

Treatment ^{ab}	Rate	Wheat		Wild oat		Yield	TW
		---% injury---		--% control--		bu/A	lb/bu
		Jun 15	Jul 16	Jun 26	Jul 16	Aug 16	Aug 16
Untreated Check		0	0	0	0	9.1	52.1
Rimfire + Bronate	1.75oz + 0.8pt	0	0	60	96	35.9	63.3
Rimfire + Bronate	2.25oz + 0.8pt	0	0	63	98	35.5	62.6
Rimfire + Affinity TM + Bronate	1.75oz + 0.8oz + 0.8pt	0	0	65	96	36.5	63.4
Rimfire + Affinity BS + Bronate	1.75oz + 0.8oz + 0.8pt	0	0	62	97	36.1	63.1
Rimfire + Affinity TM + Bronate	2.25oz + 0.8oz + 0.8pt	0	0	67	97	37.9	62.9
Rimfire + Affinity BS + Bronate	2.25oz + 0.8oz + 0.8pt	0	0	61	98	38.7	63.3
Axial + Adigor + CleanWave	8.2fl oz + 9.6fl oz + 1.12pt	0	0	97	98	37.6	63.4
Axial + Affinity TM + CleanWave	8.2fl oz + 0.8oz + 9.6fl oz + 1.12pt	0	0	96	98	34.5	63.0
Axial + Affinity BS + CleanWave	8.2fl oz + 0.8oz + 9.6fl oz + 1.12pt	0	0	94	97	39.5	63.2
LSD (0.05)		0	0	3	2.6	7.4	9.6
CV		0	0	3	2	13	9

^a Bronate = Bronate Advanced; All Rimfire treatments were applied with NIS (0.25% v/v); All Axial treatments were applied with Adigor (9.6fl oz/A).

^b Treatments were applied at 5-leaf wheat stage.