CoAXium® Barley Production System

Crop safety when using Aggressor® herbicide

The CoAXium® Barley Production System is based on varieties bred by AGT that carry tolerance to Aggressor® herbicide, to control problem grass weeds in-crop.

Released by AGT in 2022, Titan AX[ϕ] is the first barley variety in the world specifically developed to carry tolerance to Aggressor® herbicide.

Aggressor®, by Sipcam, is a Group 1 Quizalofop-P-Ethyl herbicide, offering post-emergent knockdown of major grass weeds including brome grass, barley grass, annual ryegrass, wild oats, and volunteer wheat and barley (non-Aggressor® tolerant only). Aggressor® herbicide has a wide application window and flexibility to be mixed with herbicides to control broadleaf weeds, with no carryover on soil or grain residue issues.

AGT testing has demonstrated that Aggressor® herbicide is very safe to use on CoAXium® barley varieties.

Effect on yield

Trials carried out by AGT at ten sites from 2019-2021 showed that Aggressor® applied at 1x label rate did not negatively impact yield of CoAXium® barley overall (Figure 1).

AGT application rate trials carried out at seven sites in from 2019-2021 showed that there was negligible impact on the yield of CoAXium® barley at both 1x and 2x label rate (Figure 2).

Figure 1. Yield of CoAXium® barley treated with 1x label rate of Aggressor®

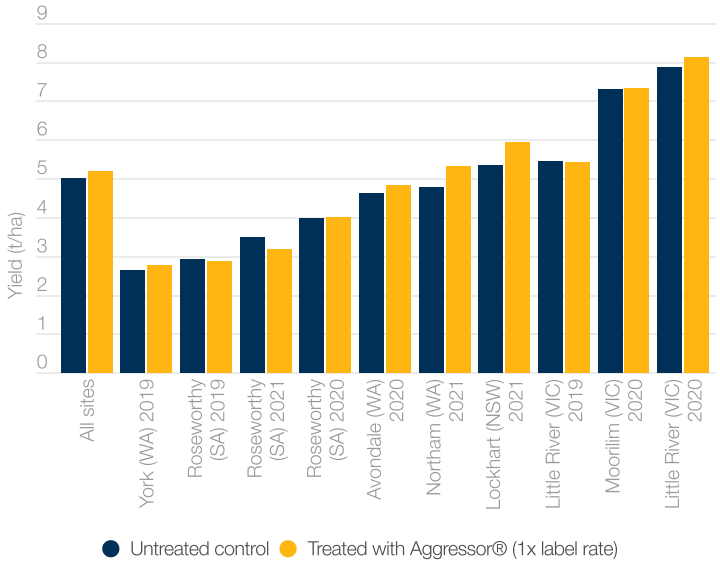
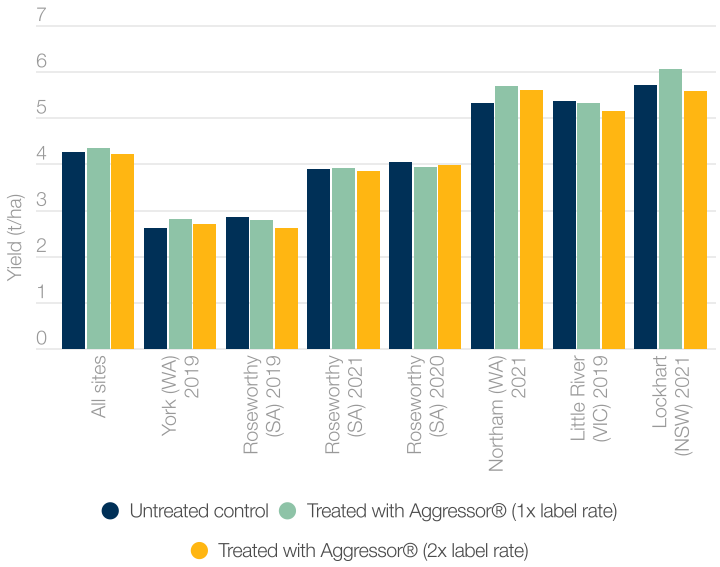


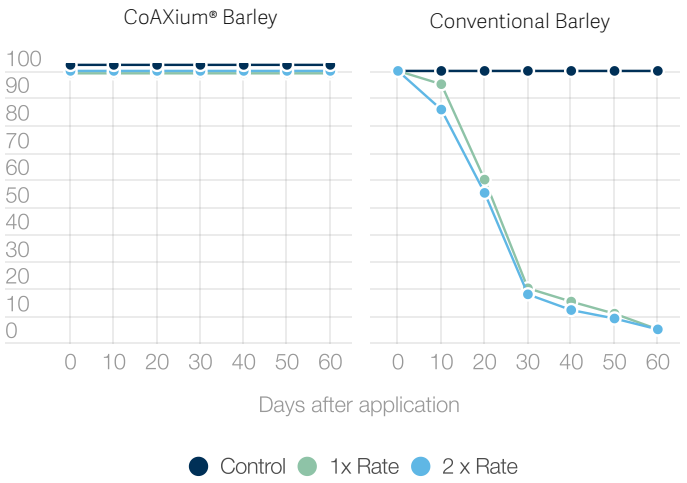
Figure 2. Yield of CoAXium® barley treated with 1x label rate & 2x label rate of Aggressor®



Effect on biomass

Trials carried out by AGT at Roseworthy SA in 2021 showed that Aggressor® applied at both 1x and 2x label rate did not negatively impact biomass production of CoAXium® barley at all, whilst causing gradual biomass reduction and ultimately death of a conventional barley variety at both rates (Figure 3).

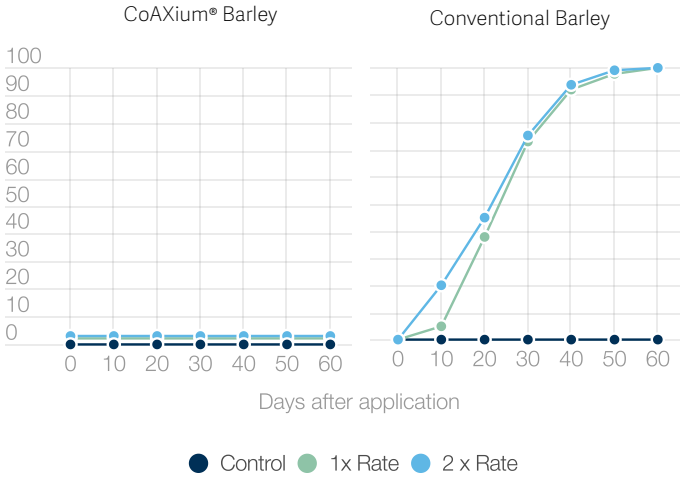
Figure 3. Biomass reduction of CoAXium® barley & conventional barley, treated with 1x label rate & 2x label rate of Aggressor ®



Effect on leaf yellowing

Trials carried out by AGT at Roseworthy SA in 2021 showed that Aggressor® applied at both 1x and 2x label rate did not cause any notable leaf yellowing on CoAXium® barley, whilst causing gradual onset of leaf yellowing and ultimately death of a conventional barley variety at both rates (Figure 4).

Figure 4. Leaf yellowing of CoAXium® barley & conventional barley, treated with 1x label rate & 2x label rate of Aggressor®



Aggressor® tolerance at work

Trial site: **Roseworthy, SA**

Sown: **18th May 2020**

Aggressor® application date: **17th June 2020**

Aggressor® application rate: **1x label rate**

Crop growth stage at time of application: **4 leaf**

	Untreated control	Treated with Aggressor® herbicide	Treated with Aggressor® herbicide
Days after application	CoAXium® barley	CoAXium® barley	Conventional barley
14			
28			
35			
48			
96			

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