

New Herbicide Options for 2006 Winter Cereal Crops

This season there will be a couple of new options available for broadleaf and grass control in winter cereals.

Hotshot herbicide (Dow AgroSciences) represents a new standard in black bindweed control in wheat, barley, oats and triticale, being both for purposes of emerged plant control, as well as having residual control properties. Hotshot contains fluroxypyr (as in Starane) and a new molecule aminopyralid. Being a Group I herbicide, symptoms are still typical of other hormones with thickened, curved and twisted stems and leaves, hardened growth on stems, enlarged roots and proliferated growth.

Weed spectrum for Hotshot includes Prickly Lettuce, Vetch, and volunteer pulse crops, however, as suggested, it's main benefit is superior control of black bindweed, therefore if a wider weed spectrum is present, tank mixes will still be required with the formulation lending itself to a wide range of mixing partners including metsulfuron (Ally), MCPA LVE, Topik and Wildcat. Three way mixes with grass control options should be avoided due to significant reductions in grass control.

Due to the residual nature of the aminopyralid component of the product, use is targeted on the black cracking clays where breakdown by microbes is greatest. Use should be restricted on lighter more acid soils (more common in southern NSW, Victoria, SA and WA) where significant increases in plant-back periods could pose a problem. For further information on Hotshot, contact your local Pursehouse Rural Agronomist.

Axial is a new Group A post-emergent selective grass herbicide developed by Syngenta Crop Protection. It sets the standards for managing Phalaris, Wild Oats and Annual Ryegrass in wheat and barley, combining performance with flexibility and excellent crop safety.

Axial can be applied to control grass weeds at any stage from 2-leaf to early tillering or end of tillering, depending on the weed species. Axial has excellent compatibility with most common broadleaf herbicides for one-pass control of grass and broadleaf weeds. It also has the advantage of being rainfast in 30 minutes when used with the Syngenta suggested adjuvant Agidor, and can be applied by both ground and aerial application. There are also no plant-back restriction with using Axial in crop.

For further information on Axial and it's fit in your cropping program, contact you local Pursehouse Rural Agronomist.

Erik's Humour...

- ⇒ **There are three ways to get things done: do it yourself, hire someone or forbid your kids to do it.**
- ⇒ **There's a fine line between fishing and just standing on the shore like an idiot...**
- ⇒ **A frogs perspective on life! "times fun when you're having flies"**
- ⇒ **A garden is a thing of beauty...and a job forever.**



Are your Legumes Working at full Capacity?

Legumes are used in pastures and as break crops to provide nitrogen (N) in the soil. With the current high prices of fertiliser it is important to make sure that you are getting the most N out of your legumes.

Rhizobia bacteria exist in nodules on the roots of legume plants. They exist in a symbiotic relationship with the plant as they supply N while the plant supplies carbohydrates (sugars). The bacteria take atmospheric N and combine it with hydrogen. This form of N is available to plants. Plant matter breaks down and is available to the following crop. Table 1 illustrates potential N fixation in kg/ha/yr for some common legume species. As a general rule of thumb, for each tonne of dry matter produced above ground, 22-25kg of N is fixed.

Table 1: Estimated annual fixation of N by legume plants: -

Legume	N Fixed (kg/ha/yr)
Lucerne	225
White Clover	110
Subterranean Clover	100
Faba Bean	145
Cowpea	100
Field pea	80
Chick Pea	55
Lupin	80



(Source: Glendinning, J.S. (2000) "Australian Soil Fertility Manual", CSIRO Publishing)

Factors affecting N fixation:

- **Inoculation**

Correct inoculation is highly important. The correct inoculant must be used for the specific legume species. Inoculated seed should not be stored for long periods of time and should be kept cool, away from direct sunlight. A seed coating extends the life of the inoculant.

- **Soil fertility**

High amounts of N in the soil will limit fixation. The plant will not produce N if it doesn't need to. Phosphorus and potassium are needed to produce carbohydrates, which feed the bacteria. Molybdenum (Mo) and sulphur are needed for the chemical reaction involved in N fixation.

Mo is often limiting in light, acidic soils. As soil becomes more acidic, Mo becomes less available. It is an element that is often overlooked, as it is not tested for on standard soil tests because the test is expensive. It is a good practice to apply Mo once every 3 years on these soils.

- **Herbicides**

Research by the GRDC has shown that some commonly used herbicides limit N fixation. This reinforces the need to have clean paddocks before sowing legume crops.

- **Environmental Conditions**

Unfavourable environmental conditions, such as drought, waterlogging and extreme temperature will also limit N fixation.

For more information on N fixation or any other soil issue contact your local Pursehouse Rural Agronomist.

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Set of Bull Lights - \$110.00

Gallagher S17 Solar Energiser - \$349.00

(all prices inclusive of GST)

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