



**AGRONOMY TECHNICAL NOTE – MAY 2009
WEED CONTROL IN 2009
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With a fine warm April, maize drilling has been progressing well over the past three weeks. The weather since drilling has been very variable – with some areas – notably the east and south of the country still remarkably dry allowing for only limited germination of the seed. On the other hand, the weather in the central areas of the country and the South West, have now had normal or more than normal amounts of April rainfall.

From the point of view of weed control, this makes for a series of mixed messages and the amount of rainfall will drive different weed controlling decisions:

A. Pre-emergence herbicides.

1. Where there has been more than normal rainfall.

In this situation, if a pre-emergence has been applied it should work well. Where the crop has not yet emerged, the crop should be treated as soon as possible with a mix of Cadou Star + pendimethalin (Stomp). Rates of use will depend upon how weedy the site is – on a relatively weed free site I would try for a mix of 0.5 l/ha of Cadou Star + 3.0 l/ha of pendimethalin in the hope that this should give season long weed control.

Where the field has a history of weeds, then the choice is either to increase the rate of Cadou Star or expect to have to go with a follow-up spray. Increasing the rate of Cadou Star to 0.75 l/ha will increase the activity, but it may still not be enough in the weediest of conditions.

Where the field is exceptionally weedy, it would be better to remain at the 0.5 l/ha Cadou Star + 3 l/ha Stomp mix and then come back with a post emergence spray – see below.

Where there are problems, such as high levels of grass weeds or high levels of fat hen,

then it is best to expect to go twice, both pre and post emergence.

A two spray programme will always be less risky but of course does cost more money, although the cost can be reduced by reducing the rate of the pre- emergence herbicides – Cadou Star + Pendimethalin can be used at 0.25 + 2.0 litres to sensitise the weeds for the post emergence sprays.

2. Where there has been less rain than normal.

Lack of rainfall does mean that the pre-emergence herbicides are unlikely to be as active and therefore, there will be a greater reliance on the post emergence sprays. Put this together with the uneven germination then a post emergence spray is almost always going to be needed in these situations.

The options are either; apply a low dose pre-emergence as above to sensitise the weeds and then follow up with a post emergence spray, or leave all until the post emergence timing. A single post emergence spray (Calaris at 1.0 l/ha) will give good control provided timing is spot-on. For spot-on timing, weeds need to be at the cotyledon stage and no greater than the 2 leaf stage. Where timing is incorrect, the low dose pre-emergence spray will slow down the growth of the weeds and allow the Calaris to be applied over a wider window, or increasing the dose rate of Calaris will allow larger weeds (up to 4 leaf) to be controlled.

B. Post emergence spraying.

With the wet weather and for that matter the uneven germination on dry fields (**please note that Cadou star applied post emergence can cause significant crop damage**), some fields will have lost their pre-emergence spray and therefore will require all weed control to be carried out post emergence of the crop. From the trial work we carried out last year, it is important to ensure

that the weeds are controlled as soon as possible after the crop has emerged, as it is this early weed competition to the crop that has the biggest effect on final yields.

Calaris

Very early post emergence weed control is best achieved with Calaris at 1.0l/ha (rate increased to 1.5 l/ha where weeds have got slightly bigger – see above). This should give good control of most broad leaved and grass weeds when applied just as the maize is emerging. In about 70% of situations, this should be sufficient for season long weed control, but if a follow up is required, for most a cheap low dose of Bromoxynil at 0.75l/ha should be sufficient to mop up the rest. Only on exceptionally weedy fields would a stronger material such as Jester (applied at 0.5 kg/ha + non ionic wetter) be required.

Callisto

Callisto can be applied to bigger weeds and give good weed control – but do remember that already some yield will have been lost through crop competition. Callisto applied at 0.75l/ha gives exceptional control of nightshade, chickweed, fat hen, mayweeds, redshank and volunteer oilseed rape – the predominant weeds in the maize crop. If using this, then my best bet is to apply as early as possible in the crops life.

Samson Extra

Applied at 0.5 l/ha, Samson Extra will give good control of grass weeds provided grass weeds are relatively small. However, due to its cost, the grass weeds need to be left until they emerge to give good control, which inevitably means it should be applied later in the crops life to achieve best effect.

Callisto + Samson Extra

Where the very early window is missed then Callisto + Samson Extra at 0.75 + 0.5 l/ha respectively is the best bet, although some crop loss may have occurred before the application, but it will control the weeds that are present. This though is a relatively expensive mix and should only be used in 'fire brigade' situations.

Bromoxynil

Where the cost of weed control wants to be kept as low as possible then Bromoxynil is the most cost effective. Applied at 0.75 l/ha it will give a good knockdown of most weeds, the only problem being, it is contact only and with no residual activity means that the crop will probably have to be re-sprayed once weeds emerge again. Therefore, unless a sprayer is owned the cost of applying may negate any cost savings from the chemicals.

Amaize

Amaize does contain Bromoxynil and a residual herbicide and may answer the problem, however the cost of the product has to be compared to the standard such as Calaris. Rates of Amaize should be 1.5 l/ha on the first application. The application timing should be the same as for Calaris.