



SOIL FIRST FARMING



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Pre-ems, pre-ems, pre-ems - but which ones?

At first view...

It would seem the choice of residual herbicides in wheat, particularly for black grass control, in no-till would be no different to other crop establishment systems - based on efficacy, weed spectrum, crop sensitivity etc.

Thinking about it...

There are some factors that need to be taken into consideration with no-till - especially in fields that have been in this system for a few years.

Namely the weeds seeds returned from this year will be on the surface and those in the soil would have not been stirred up and remixed into the soil by cultivation – so producing what I call a stable weed seed zone.

If the field has been no-tilled for a few years then the majority of seed below the surface in the stable weed seed zone would have probably germinated by now so would be less of a threat. So the majority of the weed seeds would be on the surface.

If we look...

A little closer at the residual products we can use and particularly their modes of action then clear differences can be used in our favour. Most residuals have a dominant mode of action either root activated or shoot activated meaning the active ingredients are taken up by the roots or from the shoots of the germinating weed.

With the majority of the seeds on the surface we surely need to choose products with root active modes of action where the weeds roots have to grow into the chemical due to their placement. There is not much chance of a soil applied shoot activated chemical coming near to the weeds shoot when it is on the surface and therefore not growing through the treated soil and picking up the chemical through the weeds shoot.

Looking at the main actives used, we can clearly see some bias in modes of action

Pendimethalin	Root	DFF	Shoot
Flufenacet	Root	Triallate	Shoot
Prosulfocarb	Root		

So...

Using the above information I would recommend using more of the first column products than the second when looking at pre-ems in year 3+ of no-till and off course plenty of James's DHMO! See below...

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Blackgrass control – Are you using enough Dihydrogen Monoxide or DHMO?

DHMO has been used for years to improve the distribution and performance of residual herbicides along with its other uses as an industrial solvent and coolant, it's even used in nuclear power stations and use extensively as a fire retardant.

It is critical for life but deadly if too much is inhaled.

What is Dihydrogen Monoxide or DHMO? Good old H₂O or Water!!

A great way to improve black grass control - USE MORE WATER!

Many years ago it was the answer to one of Steve's BAA exam questions on how to improve the efficacy of residual herbicides – it's been known for that long!

And...

Recent trial work reveals this too, that pre-em herbicide efficacy can be improved by the addition of more WATER. At 100l/ha a programme (see graph below) using DFF/FFT/PDM mix achieved just 50% control of blackgrass, But the same programme with 300l/ha water achieved over **90%** control. Can you afford to ignore this evidence?

DFF&FFT costs in the region of £38/ha at full rate, Pendimethalin is in the region of £20/ha. Prosulfocarb at recommended rate is circa £30/ha.

An extra 200l/ha of water costs £0.4/ha. 40 PENCE! To nearly double your blackgrass control.

Of course, it's not quite that straightforward. The above trial was conducted using twin flan fan nozzles (forward and back), none of these expensive air induction or 'product' type nozzles. Spray pattern was fine, 3 bar pressure and a moderately low forward speed of 10km/h, (trial results below).

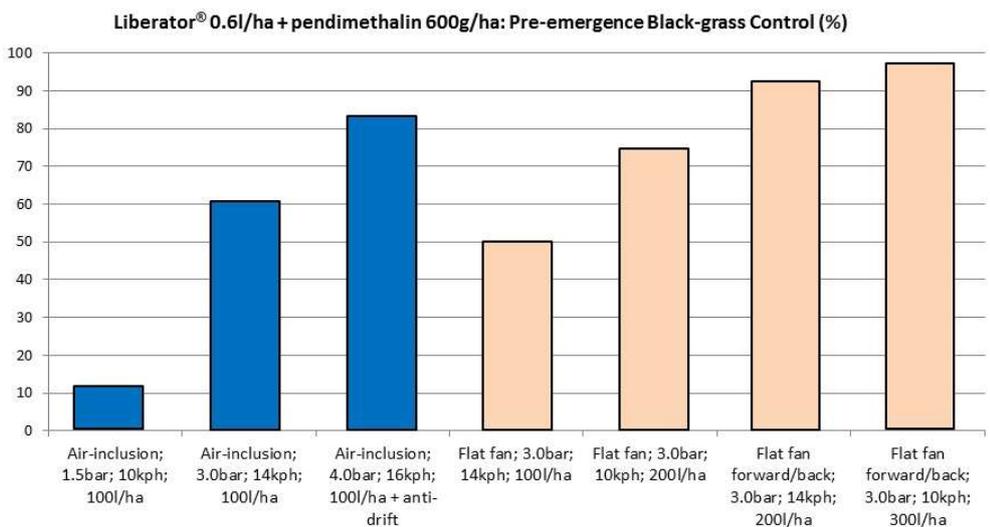
Step forward the nay-sayers! "I haven't got time"! "Gotta get on"! "Weather is set to change".

Blah, blah, blah.

If you were asked 'what is the biggest single threat to your business'? I expect the answers would be "low commodity prices", "high capital costs", "blackgrass".

Which one of the answers above can you control...?

Application Optimisation – Attention to detail is key!



Source: UK distributor trials (Agrovista) via Ag. press; 400heads/m2; Liberator is a Bayer trademark