

## Cereal seed advisory note to farmers.

The exceptional weather this autumn has meant that many cereal crops, be it organic or non-organic, have become diseased. As such seed selection and cultivation is going to be key to clean crops going forward.

The most pressing disease this year seems to be Fusarium (Microdochium) which has been reported in all the cereal species it affects<sup>1</sup>. This is a fungal disease that can be found in the soil and on seed, full details can be found on the HGCA website<sup>2</sup>. Whilst in non-organic crops this is often 'controlled' by seed dressings this is not possible with organic seed. As such the risk has to be managed by rotation, clean seed and timely sowing of crops. So it is vital that farmers assess the suitability of seed they plan to use, be it home saved or bought in.

Unfortunately, the seed regulations do not give a legal disease level above which seed should not be sold; they merely state 'Diseases and harmful organisms that reduce the usefulness of the seed must be at the lowest possible level'.

Generally the non-organic seed trade recommend that any seed with infection levels above 10% should be treated with a suitable chemical seed dressing, but this is not possible within the European Organic Regulation. This means that farmers need to source seed from lots with the lowest possible infection levels and the highest possible germination rates<sup>3</sup>. We are not aware of any formal work that has been done to establish a 'safe' upper level of infection, and in any event that will in part depend on soil conditions on sowing, and the speed with which seed germinates. We have heard that some advisors have suggested that seed with around 30% infection could be usable, but we would advise farmers to take their own expert advice if considering seed infected above the 10% level.

Of course there are a number of factors that will affect this 'safe' level the most important being the speed of crop establishment. As such farmers should follow the basic rules of ensuring they prepare a good seedbed that allows for excellent seed to soil contact<sup>4</sup>, it should also be warm enough to allow the seed to germinate, emerge and grow away as quickly as possible. Drilling slightly shallower can also help.

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<sup>1</sup> The disease infects wheat, barley, oats, triticale and grasses.

<sup>2</sup>

[http://www.hgca.com/minisite\\_manager.output/3613/3613/Cereal%20Disease%20Encyclopedia/Diseases/Fusarium%20\(Foot%20Rot,%20Seedling%20Blight,%20Ear%20\(Head\)%20Blight\).aspx?minisiteId=26](http://www.hgca.com/minisite_manager.output/3613/3613/Cereal%20Disease%20Encyclopedia/Diseases/Fusarium%20(Foot%20Rot,%20Seedling%20Blight,%20Ear%20(Head)%20Blight).aspx?minisiteId=26)

<sup>3</sup> All certified seed must attain at least 85% germination for it to be sold as seed, however, the actual germination rates may be higher than this.

<sup>4</sup> It would be prudent to use a Cambridge roll this year, this should also help limit slug numbers.

It may also be worth considering increasing your seed rate a little this year, perhaps upping it by 10% to allow for establishment losses. However, even if established plant populations look a little low in the spring, provided there is a decent start to the year, crops should compensate.

Of course it may be worth waiting until the spring to establish crops, if your land permits, as this should allow for well sown crops to establish, emerge and grow past the seedling blight caused by the microdochium.

### Derogations

Derogations can only be granted if organic seed of the variety you wish to use are not available on the Organic X Seeds<sup>5</sup> database. This means that if the variety you wish to use is listed on there you must use it before a derogation may be granted by your Certification Officer. This is a stipulation of the European Regulations governing organic production. However, if you wish to use a similar non-organic variety that is not available on the website you may request a derogation on 'agronomic' grounds explaining why this seed is required rather than the organic alternative, however the non-organic seed must not be treated with a seed dressing to meet the requirements of the EU Organic Regulation.

The final point is to reiterate the basic points when selecting any seed:-

1. Get test results on any seed being used, either from the supplier or from a lab if home saving.
2. Select seed with the highest possible germination %.
3. Select seed with the lowest possible disease levels.

**Please remember to seek advice and speak to your Certification Officer before you use any non-organic seed.**

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<sup>5</sup> <http://www.organicxseeds.com/oxs/do/Login?paramCountry=188>