



CLOCKWISE, FROM FAR LEFT: Vijaya Bhaskar. Quantity needed for resistance testing. For smaller seeds, eg blackgrass, Italian ryegrass, one to two mugs of seeds, eg wild oats, brome, one to two pint glasses of seeds.

Time to test for herbicide resistance

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Fields with large populations of herbicide-resistant grass weeds, especially blackgrass and Italian ryegrass, have been robbed of crop yield and rendered incapable of remaining in tillage.

If you have uncontrolled grass and/or broad-leaved weeds in your crop at harvest; or you have already identified, or suspect, herbicide resistance with blackgrass, Italian ryegrass wild oats, bromes, annual meadow-grass, canary grass, chickweed, poppy or corn marigold on your farm, it is a really good idea to get weed seed samples tested now.

Testing will let you know which herbicides will work and what integrated weed management (IWM) strategies to adopt to combat further spread and resistance development. This is an invaluable free service available from Teagasc Oak Park.

To date, herbicide resistance testing has shown:

- Increasing cases of resistance in key species.
 - 56% of blackgrass and 60% of Italian ryegrass were resistant to one or more herbicides.
 - 19% of wild oats were resistant to at least one herbicide.
 - We have found herbicide-resistant annual meadow-grass, and
 - We have confirmed herbicide-resistant poppy and chickweed.
- Resistance occurs across all crop establishment systems
- Some farms had more than one resistant grass weed (eg resistant blackgrass and Italian ryegrass), or mix of resistant grass and broad-leaved weeds (eg resistant blackgrass and poppy).

Seed sample collection

Good sample collection is essential for resistance testing. Follow these steps:

- Collect grass-weed seeds (not intact heads) when they are ripe and fall off the seed head when brushed, stroked, or shaken vigorously into a paper envelope.

- With broadleaved weeds, collect ripe seed heads or capsules or seeds directly into a paper envelope.
- Sample sufficient seed quantities.
- Fill-out the herbicide resistance testing form (downloadable).
- Send paper bags of dry seeds along with completed form to Vijaya Bhaskar, Teagasc Crops Research Centre, Oak Park, Carlow.
- The resistance testing form and seed collection instruction is accessible via <https://bit.ly/3MrlcgR> or scan the QR code. Your advisor will have all the details too.



Finally

Undetected resistance on your farm can rapidly lead to full resistance or multiple resistance developing, requiring long-term costly control measures. We need to adopt a zero-tolerance approach which begins with resistance testing.

Act now to ensure we can manage weeds, in the next cropping season and beyond.