

## Teagasc Research: Herbicide Resistance in Grass Weeds in Ireland

Grass weeds populations are increasing at both the national and a farm level in recent years, with herbicide resistance now being suspected in a number of grass weeds. Herbicide resistance is the ability of a weed to survive a dose of herbicide that would be expected to kill it.

| Weed Species                 | Sterile Brome           | Wild Oats                   | Canary Grass   | Black Grass  |
|------------------------------|-------------------------|-----------------------------|--|--|
| Distribution in Ireland      | Widespread              | Widespread                  | Widespread at low levels, but very problematic in some areas | Very localised at low levels                                       |
| Resistance Status in Ireland | Not currently resistant | A number of suspected cases | A number of suspected cases                                  | Extremely resistant in the UK, suspected to be the same in Ireland |

This problem can be made worse by:

- Continuous Autumn cropping
- Using the same cultivation type every year
- Early drilling
- Using less competitive crops
- Only applying herbicides post-emergence
- Poor stubble hygiene

This issue is currently being researched by Teagasc in Oak Park. The project requires the collection of sample grass weeds from farms throughout the country. Grass weeds suspected to be herbicide resistant will be grown under controlled conditions before being tested with a number of different herbicide active ingredients at a variety of doses. Resistance scores for each weed will then be calculated and all information will be passed back to the farmer and their advisors to plan a management strategy based on these results.

This research study will also look at cultural control practices on farms (anonymous survey) to build up a picture of practices associated with herbicide resistance. This knowledge gained from the survey can be passed back to growers to form a best practice strategy for dealing with problematic grass weeds.

### Grower Action

If you think you may have this problem on your farm please contact your advisor, or contact our researcher for this project, Ronan Byrne, directly.

|                    |                               |                    |                    |
|--------------------|-------------------------------|--------------------|--------------------|
| <b>Ronan Byrne</b> | <b>ronan.byrne@teagasc.ie</b> | <b>085 7554826</b> | <b>059 9170275</b> |
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Alternatively, dry, ripe seed can be sent in a sealed envelope to Oak Park, along with the growers contact details to:

Ronan Byrne,  
Biotechnology Building,  
Teagasc Oak Park, Co Carlow.