



# ITALIAN RYEGRASS SURVEY 2021

Thank you for your participation in our Italian Ryegrass resistance testing survey. NIAB will be testing different herbicides and needs a good supply of weed seed in each sample (at least one coffee mug full, or more if manageable) to complete all tests. Allow the ryegrass samples to dry for a few days in a breathable bag before sending. Clearly mark your sample bags with your name, address and contact number, plus fill in this form and include with each sample, sending it to:

**John Cussans, NIAB, 93 Lawrence Weaver Road, Cambridge, CB3 0LE**

## ABOUT THE SAMPLE

Collection date

Crop (e.g. winter wheat)

Crop sowing date (if actual date is unknown include approximate date, e.g. first half of Oct)

Farm address

Field name

Contact details (for NIAB to send test results to)

Name

Email

Phone

Tick here to confirm that you understand NIAB will store this information (including name, email and phone) for exclusive use by NIAB to help in herbicide resistance monitoring. No third party will be supplied with any personal or contact details

## WEED STATUS

How significant is Italian Ryegrass across the farm?

- Rare/few individual plants (hardly enough to sample)
  Quite a few patches or patches in various places
  In multiple fields across the farm and relatively high density
  Some really bad patches in some fields
  Very high levels in multiple fields

Are you seeing more Italian Ryegrass over the past few years than in the past?

- A lot less than the past
  A little less
  About the same level
  Slight increase
  A big increase

Are you worried about Italian Ryegrass resistance?

- No
  Not sure
  Yes
  I already have confirmed resistance

Is there a history of sowing Italian Ryegrass (for livestock/forage) on the farm?

- Not that anyone remembers
  Yes, but more than 10 years ago
  Yes, less than 10 years ago
  Yes, we currently include Italian Ryegrass in sown leys

## HERBICIDES USED THIS SEASON

Please note all herbicide applications in the current season in this field

	Application date	Product(s)/active(s)	Rate (l/ha)
Application 1			
Application 2			
Application 3			
Application 4			

# HERBICIDE PRACTICE



Herbicide use in this field and across the farm generally

Have you changed anything in the herbicide programme recently (tick more than one box if relevant)?

- Stopped or reduced use of post-em herbicides     Increased the use of residual herbicides     Still using post-em's, but stopped using ALS herbicides (e.g. Atlantis, Niantic, Broadway Star etc)     Reduced overall expenditure on all herbicides     Increased overall expenditure on all herbicides

Any other comments on herbicides for Ryegrass (normal practice, successes, failures and changes)

# AGRONOMY

Describe your cultivation practice (tick more than one box if relevant)?

- Plough     Deep non-inversion     Min-till     Direct drilling

If ploughing, how often?

1 year in

Direct drill system

Describe your approximate rotation (or the crops grown)

Have cultivations changed over recent years (tick more than one box if relevant)?

- Reduced or stopped ploughing     Adopted fewer cultivations overall (min-till)     Adopted direct drilling     No change

Has the rotation changed over recent years (tick more than one box if relevant)?

- More spring crops     Fewer spring crops     Dropped or reduced oilseed rape     Adopted/increased winter barley area

Any other comments on your agronomy, particularly how it may have affected ryegrass populations

Thanks for supporting the survey/resistance testing initiative. The results will be summarised for the NIAB TAG Membership and individual results for this sample will be sent to the contact named on this form. Results data will be shared between Bayer and NIAB. For more information on how your data will be stored please refer to the Bayer Crop Science data privacy policy <https://cropsscience.bayer.co.uk/about-us/privacy-statement/>.

## ACTION

- Complete the questionnaire for each sample submitted
- The seed collected must be mature and viable
- Aim for about a coffee-cup full of seed
- Allow to dry in an open container for a few days
- Post, in a paper or linen bag (never a plastic bag or box), to:

**John Cussans, NIAB, 93 Lawrence Weaver Road, Cambridge, CB3 0LE**

## COMPLETING THE QUESTIONNAIRE

A really important part of the survey is to gather the practical experience of farmers and advisors on this weed so it is vital that the questionnaire is completed alongside the seed sample.

NIAB would welcome questionnaire responses without seed samples if you want to give your feedback but are not interested in the herbicide resistance status. On the other hand, a seed sample without a questionnaire is really only giving us a part of the picture of the weed on your farm.

## COLLECTING A GOOD SEED SAMPLE FOR RESISTANCE TESTING

The absolute priority for collecting any weed seed sample is that the seeds are mature and ready to shed (and so we obtain viable/germinable seed to test).

Italian Ryegrass usually starts to mature and become ready for seed collection around 2<sup>nd</sup> to 3<sup>rd</sup> week in July in a winter wheat crop. The maturation timing can be variable between seasons and will tend to be slightly later in the North than the South.

Seed should be collected by dislodging mature seed from the seed-head if possible, rather than ripping seeds off that are green and unrip. For Italian Ryegrass if a significant proportion of the seed has already shed it is possible to sample complete heads but a much larger sample will be required from which viable seed will be cleaned out.

It is easiest in the field to use a quite large bucket or plastic box to collect the sample; holding the bucket in one hand dislodge mature seed into it with the other. Trying to collect samples directly into an envelope or bag is incredibly fiddly and difficult.

Walk around the field and try to collect a representative sample across the area infested by the weed. Because herbicide resistance varies quite a lot, even within fields,

try to record exactly where the sample was taken from for future reference. Never combine samples from different fields; if the weed is a problem in more than one field then submit multiple samples.

Because of the number of tests we will be carrying out aim for a full coffee-cup of seed (not seed and trash!). This seems like a large sample but we will have to clean out a significant proportion of non-viable seed and we do want to retain a small sample for future reference.

## AFTER SAMPLE COLLECTION

Experience has shown that the best levels of germination are maintained in the seed sample if it is allowed to dry (on a desk or window sill for example) in a tray or open container for a few days after collection. If the sample was collected in relatively wet or moist conditions then drying it for a few days and perhaps mixing it a couple of times is an absolute priority.

## POSTING THE SAMPLE TO NIAB

Always use paper or linen bags for seed samples. Never send them in plastic bags or sealed plastic boxes. If it is possible send a sample earlier in the week rather than on a Thursday/Friday. It means it will be processed quickly and does not sit in the post system over a weekend.

As an alternative to posting the Italian Ryegrass samples local Bayer CropScience representatives may take them. To ensure samples and sample details do not get lost or separated from each other, please ensure the samples and the envelope are labelled (or a label is placed within the bag/envelope). If you can print out the questionnaire and put that into the envelope with the sample.