Animal &
Plant Health
Agency

Great Britain and Northern Ireland Variety List Trials: Trial Procedures for Official Examination of Value for Cultivation and Use (VCU) Harvest 2026

Forage Triticale

Appendices

September 2025

Changes since last version

- Appendix 7 added
- Appendix 8 added

Contents

Appendix 1 – Approved Trial Organisers/ Operators for Forage Triticale

Activity	Organisers/Operators responsible
Trials Organiser	BSPB
Trial Design and Data Handling Operator	Niab
Growing Trial Operator	Niab
Seed Handling Operator	Niab
Trial Inspection and Technical Validation Operator	Niab
Quality Testing Operator	Niab
Data Review and Standard Setting Operator	Niab

Appendix 2 – Seed treatment products for use on VL trials

Approved products compliant with restrictions, manufacturer's guidance and Trials Organiser's approval.

Appendix 3 – Seed despatch deadline

VCU seed must be delivered to the Seed Handler by:

- Winter sown Triticale 15 September
- Spring sown Triticale 15 January

Appendix 4 – VCU Growing Trial Operators and trial locations for Forage Triticale

Growing Trial Operator	Seed Handling Operator (if not trial operator)	Location of trial
Niab	Niab	TBC

Appendix 5 – Control varieties for VCU assessments for Forage Triticale

The control varieties are:

Spring:

- Dublet
- Mazur

Winter:

- KWS Fido
- Amarillo

Appendix 6 – Dates by which records should be submitted

6.1 To Trials Organiser

Record	Latest date of receipt by Trials Organiser
Site data part 1 (including site sketch)	Within 1 month of drilling trial
Site data part 2	By the time trial is harvested
Plot records (in approved electronic format)	Growing Trial Operator should notify Trials Organiser that trial has been harvested within 2 days of harvest

6.2 Plot records to Data Handling Operator

Record	Date
Plot records should be sent to Data Handling Operator	Within 10 days of record being taken

6.3 Plot samples to Quality Testing Operator

Samples	Date
Plot samples for quality testing Should be sent to Quality Testing Operator	Within 2 days of harvest

Appendix 7 – Assessment keys for Forage Triticale diseases

Last updated: December 2023

Recommendations by Paul Gosling, BASIS registration number R\E\8107\IFM.

- RL Trials Co-ordinator: AHDB 024 7669 2051
- VL Co-Ordinator: BSPB Trials 01353 653200

This programme is for use on AHDB Recommended List and National List cereal trials in 2021/22:

- For spring and summer applications to trials for harvest 2022
- For autumn applications to trials to be harvested in 2023

It is an experimental protocol and is designed to meet the protocol aim of keeping disease levels in treated plots below 5% infection in all varieties and in all trials. It is not intended to follow commercial practice.

Please note that most treatments are compulsory, and the rates and timings specified should be adhered to as closely as possible. The protocol is robust and, if applied correctly, should be effective. **If, however, disease levels rise above 5% (e.g., if weather conditions do not allow optimal application), please contact Mark Bollebakker (RL) or Louise Everest (VL) to discuss an appropriate course of action.**

Fungicides should be applied at the stated dose rates unless agreed otherwise with the RL Trials Co-ordinator or VL Co-ordinator. Changes to dose rates will only be sanctioned in exceptional circumstances, such as drought-stressed trials under low disease pressure.

Please contact the RL Trials Co-ordinator or VL Co-ordinator if you have any difficulty in sourcing a particular product.

In some cases, two or more products may be available from a company with the same active substances and formulation; if you wish to use such a product and it is not listed in this protocol, contact the RL Trials Co-ordinator or VL Co-ordinator. Generic products should be avoided as they may contain the same active substances but in a different formulation.

Important: Every care has been taken to ensure that all mixtures, rates, and timings are approved, meeting COSSH regulations and manufacturers and statutory guidelines. However, it is the responsibility of the Trial Manager to ensure that they meet all current regulations at the time of application. It is recommended to seek advice from a qualified BASIS advisor for suitability to local conditions and regulatory compliance. The RL Trials

Co-ordinator or VL Co-ordinator should be notified of any conflict between the protocol and current regulations.

In accordance with FRAC guidelines, only two applications of strobilurin fungicides and two SDHI fungicides are to be applied to any crop.

Product	Active substances	Amount of active substance	Manufacturer
Ascra Xpro	Bixafen Fluopyram Prothioconazole	65g/l 65g/l 130g/l	Bayer Crop Science
Comet 200	Pyraclostrobin	200 g/l	BASF
Cyflamid	Cyflufenamid	50 g/l	Certis
Elatus ERA	Benzovindiflupyr Prothioconazole	75 g/l 150 g/l	Syngenta
Entargo	Boscalid	500 g/l	BASF
Arizona	Folpet	500 g/l	Adama
Proline 275	Prothioconazole	275 g/l	Bayer
Prosaro	Prothioconazole Tebuconazole	125 g/l 125 g/l	Bayer
Revystar XE	Mefentrifluconazole Fluxapyroxad	47.5/100 g/l	BASF
Sunorg-Pro	Metconazole	90g/l	BASF
Talius/Justice	Proquinazid	200 g/l	DuPont
Tebucur 250	Tebuconazole	250 g/l	Belchim/Rotam
Univoq	Fenpicoxamid Prothioconazole	50 g/l 100 g/l	Corteva

WINTER TRITICALE

Treatment Timing	Growth Stage (G.S.) - target timing or disease	Product / active ingredient	Rate
T0	G.S. 30		
		Tebuconazole 250 +	0.75 – 1.0 l/ha
Optional: If mildew present, TRIALS OPERATORS' DISCRETION WHETHER TO USE EITHER AT T0 OR T1.		*Cyflamid*	*0.25 – 0.35 l/ha*
T1	G.S. 31 – 32		
Increase rate for high rust.		Elatus Era +	1.0 l/ha
Optional: If mildew present, TRIALS OPERATORS' DISCRETION WHETHER TO USE EITHER AT T0 OR T1.		*Cyflamid*	*0.25 – 0.35 l/ha*
T2	G.S. 39 – 45		
		Revystar XE	0.5 – 1.0 /l/ha
T3	G.S. 59 – 61		
Optional: Rye only if rust remain a problem before G.S.61.		*Prosaro*	*0.8 l/ha*

SPRING TRITICALE

Treatment Timing	Growth Stage (G.S.) - target timing or disease	Product / active ingredient	Rate
T1	G.S. 31 – 32		
		Tebuconazole 250 +	0.75 – 1.0 l/ha
		Talius/Justice	0.15 l/ha
T2	G.S. 32 – 45		
		Elatus Era	1.0 /l/ha

7.1 Recommended List Fungicide and PGR Ag Chem product labels

7.1.1 Introduction

This list can be used to help find the relevant product labels for PGRs, fungicides, herbicides, and insecticides listed in the main protocols. The links below can be used to navigate to the company page and search for the product labels.

Adama UK

Listen > Learn > Deliver | ADAMA

BASF

Product Labels, MSDSs & EISs (basf.co.uk)

Bayer Crop Science

Crop Protection Products from Bayer Crop Science UK

Belchim UK

Products UK – Belchim Crop Protection

Certis Europe

Products A-Z and Key Documents | Certis Europe United Kingdom

Corteva/DU Pont

Find a Product | Corteva Agriscience

Syngenta

Labels and SDS downloads | Syngenta

7.2 Brown rust

% Infection	Infection by score (1-9)	Amount of infection
0	1	No infection observed
0.1	2	1 small cluster of pustules per tiller
1	3	1 cluster per leaf
5	4	Most tillers infected but some top leaves uninfected
10	5	All leaves infected but leaves appear green overall
25	6	Leaves appear ½ infected ½ green
50	7	Leaves appear more infected than green
75	8	Very little green leaf tissue left
100	9	Leaves dead - no green tissue left

Appendix 8 – Assessment keys for cereal diseases

1) Examine top 4 leaves. If top leaf has been fully expanded for less than 14 days, refer to 2nd leaf as 'top leaf'.
2) Ignore all naturally senescent leaf tissue.
3) Include all chlorosis and necrosis attributable to disease.
4) Record % infection; use interpolated values (e.g. 3%) if necessary.

If foci present, record average over the plot as a whole.

% Infection	Crown rust	Yellow rust	Brown rust
0	No infection observed		
0.1	1 small cluster of pustules per tiller	1 stripes per tiller	25 pustules per tiller
1	1 cluster per leaf	2 stripes per leaf	100 pustules per leaf
5	Most tillers infected but some top leaves uninfected	Most tillers infected but some top leaves uninfected	Top leaf – numerous pustules but leaves appear green overall
10	All leaves infected but leaves appear green overall	All leaves infected but leaves appear green overall	Top leaf – pustules sufficiently dense to give brown appearance in patches
25	Leaves appear ½ infected ½ green		
50	Leaves appear more infected than green		
75	Very little green leaf tissue left		
100	Leaves dead - no green tissue left		

% Infection	Septoria	Rhynchosporium	Net blotch
0	No infection observed		
0.1	1 lesion per 10 tiller	1 lesion per 10 tillers	1 small lesion per 10 tillers
1	2 small lesions per tiller	1 lesion per tiller	1 small lesion per tiller
5	Small lesions beginning to form areas of dead tissue across width of leaf	Discrete lesions on most tillers, about 2 per leaf	2 lower leaves appear ¼ infected. Other leaves - few lesions
10	2 lower leaves – large areas of diseased tissue some covering 1/3 of leaf	Lesions coalescing but leaves appear green overall	2 lower leaves appear ½ infected. Other leaves - numerous lesions
25	Leaves appear ½ infected ½ green		
50	Leaves appear more infected than green		
75	Very little green leaf tissue left		
100	Leaves dead - no green tissue left		

% Infection	Mildew
0	
0.1	3 pustules per tiller
1	5 pustules per leaf
5	2 lower leaves appear ¼ infected
10	2 lower leaves appear ½ infected
25	Leaves appear ½ infected ½ green
50	Leaves appear more infected than green
75	Very little green leaf tissue left
100	Leaves dead - no green tissue left

% Infection	Ramularia
0	
1 – 5	Sparse lesions on upper leaves
6 – 10	More lesions on upper leaves
11 – 20	Numerous lesions on middle and upper leaves with some necrosis
21 – 30	Many lesions and severe necrosis on upper leaves and lesions on middle leaves
31 – 40	Extensive lesions on upper leaves many lesions on middle leaves and necrosis
41 – 50	Severe damage to upper leaves more lesions and necrosis on middle and lower leaves
51 – 75	100% lesions on upper leaves severe necrosis on middle leaves
75 – 100	Almost all leaves necrotic with lesions on all leaves

Data Protection:
For information on how we handle personal data visit www.gov.uk and search Animal and Plant Health Agency Personal Information Charter.

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