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

Sunflower

Appendices

April 2025

Changes since last version

- Updated year of document and date of last update.
- Updated email link to national archives at end of document

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Scope

This document contains the appendices for the main guidance document:

Trial Procedures for Official Examination of Value for Cultivation and Use (VCU) Harvest 2026 – Sunflower

Appendix 1 – Approved Trial Organisers/ Operators for Sunflower

Activity	Organisers/Operators Responsible
Trials Organiser	BSPB
Seed Handling Operator	Niab
Trial Design and Data Handling Operator	Niab
Pathology Trials Operator	None
Trial Inspection and Technical Validation Operator	BSPB
Quality Testing Operator	Niab
Data Review and Standard Setting Operator	Niab

Appendix 2 – Approved seed treatment products

None

Appendix 3 – Seed despatch deadline dates

VCU seed must be delivered to each Growing Trials Operator/Seed Handling Operator by:

1 February

Appendix 4 – Growing Trial Operators and Trial locations

4.1 Growing Trial Operators/Seed Handling Operators

Growing Trial Operator	Seed Handling Operator (if not Trial Operator)	Location of Trial
Niab	Trial Operator	Cambridgeshire

4.2 Pathology Trials Operator

None

Appendix 5 – Control varieties for VCU assessments

The control varieties are:

- Peredovick
- RGT Capitoll

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 plus diary	By the time the 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 – Growth stages of Sunflower

Growth Stage	Code	Description
Emergence and expansion	1.0	The crook of the seed stem appears above the soil
Emergence and expansion	1.1	The cotyledons and first pair of true leaves unfold
Vegetative growth	2.1	The first pair of leaves reach 4cm and their leafstalks become identifiable
Vegetative growth	2.3	The second pair of leaves reach 4cm and their leafstalks become identifiable
Vegetative growth	2.5	The fifth leaf reaches 4cm long and the leafstalk becomes identifiable
Vegetative growth	2.n	The nth leaf reaches 4cm long and the leafstalk becomes identifiable
Growth of flower bud	3.1	The flower bud can just be seen in the apical rosette of leaves
Growth of flower bud	3.2	The flower bud is separated from the rosette. Diameter less than 2cm
Growth of flower bud	3.3	The flower bud grows clear of the final leaf. Diameter less than 5 to 8cm
Growth of flower bud	3.4	The flower bud is still vertical. The centre is closed and the outer most bud-scales are beginning to fold back
Growth of flower bud	3.5	With the spreading back of more bud-scales yellow ray florets are now visible within, initially pale in colour

Growth Stage	Code	Description
Flowering	4.1	The ray florets unfold and the flowerhead begins to incline
Pollination and seed production	4.2	The neck becomes more curved while the ray florets are fully spread. Stigmata are not yet visible
Pollination and seed production	4.3	Stigmata are visible in the three outermost rings of disk florets
Pollination and seed production	4.4	Seed formation underway in the outermost disks with stigmata present in the inner three. The most mature seeds are light grey and still soft
Pollination and seed production	4.5	The remaining disk florets are now active and the ray florets begin to fade. The seeds in the outermost circle have become darker and their skin harder
Seed maturation	5.0	The ray florets have shed but the back of the disk is still green
Seed maturation	5.1	The back of the disk changes through lime-green to yellow. Bud-scales remain green
Seed maturation	5.2	Both the back of the disk and the bud-scales are pale yellow. Senescence has occurred to 50% of the foliage leaves
Seed maturation	5.3	The back of the disk is rich yellow, and the bud scales and the bud-scales are mottled brown
Seed maturation	5.4	The bud-scales are now almost completely brown. Two thirds of the leaves have senesced
Seed maturation	5.5	The back of the disk is now marbled with brown: the stem tissues are dying out and the bud-scales are totally brown
Seed maturation	5.6	The whole of the plant is dark brown and seed moisture is no more than 10%

Appendix 8 – Assessment of Sunflower diseases

8.1 Instructions

1) Examine all leaves in 3 areas of each plot
2) Include all necrosis and chlorosis attributable to disease to be assessed
3) Estimate % infection using the description below, interpolating values if necessary
4) Record the average % infection from the 3 areas

8.2 Infection disease severity description

Infection	Description of severity
0	No infection observed.
0.1	Older leaves with a trace of infection, other leaves uninfected.
1	Older leaves with up to 10% infection, other leaves largely uninfected.
5	Older leaves with up to 25% infection, middle aged leaves with a trace of infection.
10	Older and middle-aged leaves with up to 25% infection, young leaves largely uninfected.
25	Leaves of all ages appear 50% infected 50% green on average.
50	Leaves of all ages appear more infected than green on average.
75	Very little green tissues left.
100	No green tissue left.

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