Animal &
Plant Health
Agency

United Kingdom Variety List Trials: Trial Procedures for Official Examination of Value for Cultivation and Use (VCU) Harvest 2024

Soya Bean

Appendices

July 2023

Changes

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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 2024 – Soya Bean

Appendix 1 – Approved Trial Organisers/ Operators for soya bean

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

To be advised.

Appendix 3 – Seed despatch deadline dates

VCU seed must be delivered to NIAB by 1 February

Appendix 4 – Growing Trial Operators and trial locations

Growing Trial Operators/Seed Handling Operators

Growing Trial Operator	Seed Handling Operator (If not trial operator)	Location of trial
Elsoms Seeds Ltd	NIAB, SHU	Spalding, Lincolnshire

Pathology Trials Operator

None

Appendix 5 – Control varieties for VCU assessments

ES Comandor
Sculptor

Appendix 6 – Dates by which records should be submitted

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

Plot records to Data Handling Operator

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

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 Soya Bean

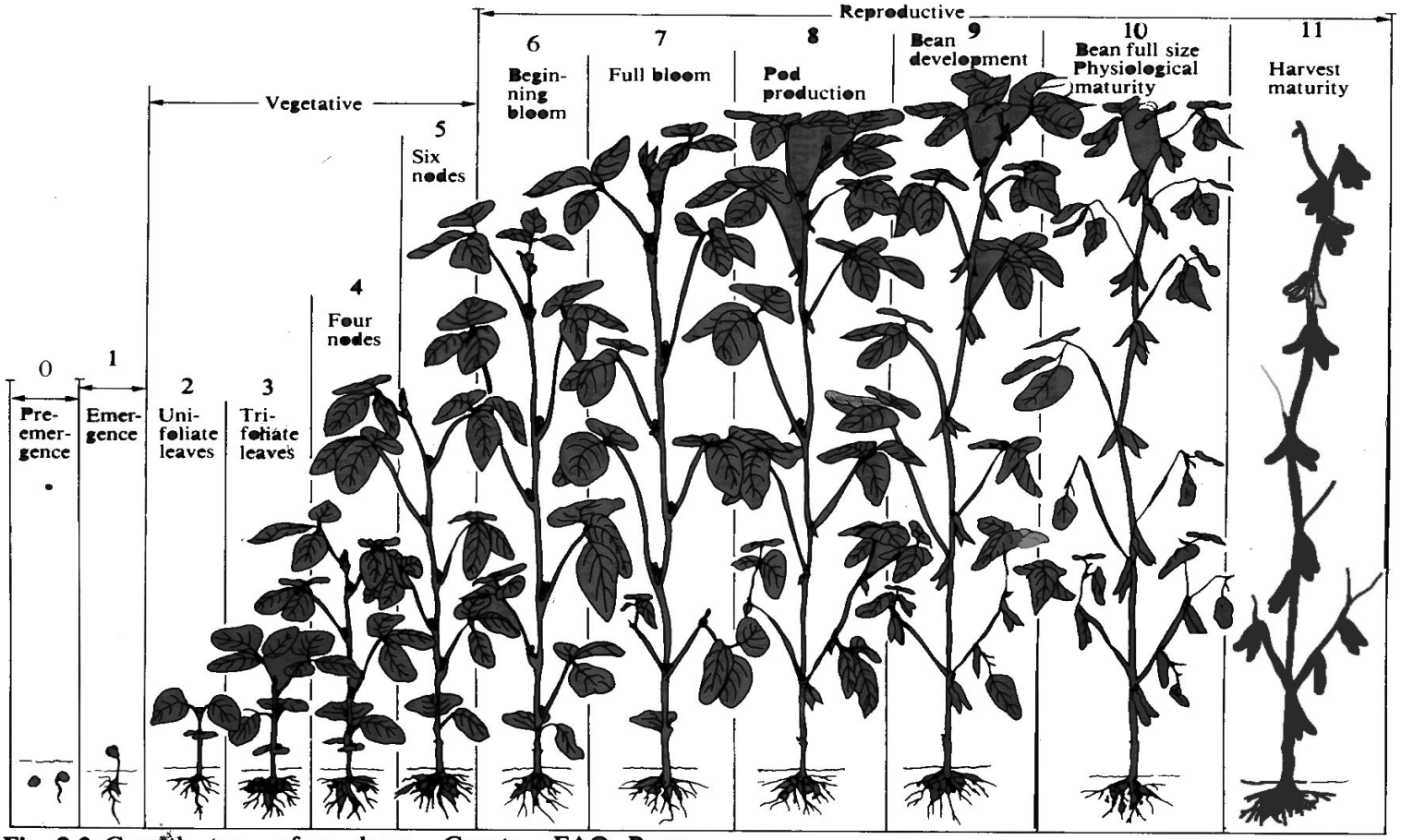

Fig. 8.2 Growth stages of soyabean – Courtesy FAO. Rome.

Appendix 7: Diagram illustrating the growth stages 0 to 11 of soyabean.

Appendix 8 – Assessment of soya bean diseases

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

Infection disease severity description

Infection	Description
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.

Other disease assessments:

Stem canker

Stem canker may be assessed by examining 30 stems per plot. Stems should be pulled at random throughout the plot. Appropriate sampling times are usually from the middle of June onwards. If sampling is not carried out prior to harvest, it must be done ***as soon as possible afterwards, within a maximum of 2 days.*** The external symptoms only should be assessed by assigning stem base symptoms on each of the 30 stems to one of the following categories:

	no infection observable
1	<25% girdling of the stem
2	26-50% girdling
3	51 -75% girdling
4	76 -100% girdling
5	100% girdling + stem weakness
6	100% girdling + stem death

Any records made should be submitted on the standard record sheet enclosed with this protocol as soon as they are made to the testing authority, showing clearly the number of plants per plot in each disease category. “Five bar gate” tally systems are most appropriate. A disease index (DI) on a 0-100 scale will be calculated by the Information Technology and Statistics Department at NIAB using the formula

$$\frac{(0xa + 1xb + 2xc \text{ etc})}{(a + b + c + \text{etc})} \times \frac{100}{6}$$

where a, b, c etc are the number of plants in each disease category

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Any enquiries regarding this publication should be sent to us at

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The Animal and Plant Health Agency (APHA) is an executive agency of the Department for Environment, Food & Rural Affairs, and also works on behalf of the Scottish Government and Welsh Government.