

RECOMMENDED LISTS

AHDB Recommended Lists (RL) for cereals and oilseeds: Special plots for the production of winter wheat and spring wheat grain samples for milling and baking tests (2022–26)

This protocol was believed to comply with relevant agrochemical, environmental and other regulations at the time of writing but it is the responsibility of the contractor to ensure that it continues to comply. In the event of non-compliance the protocol should not be followed but the Field Trials Manager should be notified at once of how the protocol requirements would breach regulations.

Any deviation from this protocol other than under the circumstances described above may result in a breach of contract and should be agreed in advance.

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Changes from previous version

Page no.	Section	Details of change
4	1.3	Amended trial sites
5	1.8	Amended sowing dates
6	1.10.1	“AHDB Nitrogen Management guidelines” amended to “AHDB Nutrient Management Guide (RB 209)”

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Part 1: General Information

1.1 Aims

The provision of wheat grain for industry milling and baking testing. A selection of Recommended List bread-making and biscuit-making varieties are to be grown under the best possible husbandry and management to produce high quality samples for milling and baking assessment (bread and biscuits).

1.2 Crops

Winter wheat and spring wheat.

1.3 Centres

Bread-making management

Seven sites. It is expected that most/all of the acceptable sites will be in Eastern England but a suitable soil type and a good record of producing bread making grain to a high specification is more important than geographic location.

Winter wheat: WW561, WW562, WW563, WW564, WW565, WW566, WW567

Spring wheat (spring sown): SW573, SW574

Spring wheat (sown mid Nov - end Jan): AW575, AW576

Biscuit making management

Four sites. A suitable soil type and a good record of producing biscuit making grain to a high specification is more important than geographic location.

Winter wheat: WW569, WW570, WW571, WW572

1.4 Sites

To be grown as a first wheat. The soil in which the plots are grown should be suitable for the production of bread or biscuit-making quality samples and the trial operator should ensure that the crop nutrient profile is adequate.

1.5 Replications

Not applicable.

1.6 Plot Size

Plot size should be sufficient to provide a minimum of 40 kg of grain per variety.

1.7 Treatment

Agrochemicals should be used as appropriate for a commercial crop to promote 'normal' growth and to keep the plots substantially free of lodging, disease and weeds. Full fungicide treatment to be applied. This may be as per the Recommended List protocol or a robust farm treatment.

1.8 Sowing Date

Winter wheat: late September to mid-October.

Spring wheat (spring sown): between February and the end of March.

Spring wheat (autumn/winter sown): between November and the end of January.

1.9 Varieties

The sowing list will include an appropriate control and candidate varieties considered by nabim to have bread or biscuit-making potential.

1.10 Management

Approximately 40 kg of grain may be required from each site per variety. The number of plots required to provide this amount depends on the size of a 'normal' plot and the potential yield, and this decision should be taken by the trial operator. The plots should be laid out to allow machine fertiliser and pesticide applications with no under/overlap or drift that might affect quality. Varieties with similar maturity characteristics should be grown together and in a way that will allow them to be harvested before other varieties if necessary. Timeliness of harvest is very important to minimise the risk of loss of Hagberg and physical quality.

The RL fungicide protocol should be used to keep disease levels to below 5% in all varieties. This protocol can be found in the most recent version of Protocol 001 CER 22-26 AHDB RL Cereal trials as Appendix 1.

Plant growth regulators should be used to minimise the risk of lodging in any plots, unless the trial operator feels it would deleterious to do so, in which case the Field Trials Managers Team should be consulted. The protocol can be found in the most recent version of Protocol 001 CER 22-26 AHDB RL Cereal trials as Appendix 2.

The crop should be kept substantially free of weeds and damage by pests. Particular attention should be paid to infestation by Orange Wheat Blossom Midge. Traps should be used during the period from ear emergence to anthesis and measures taken to protect the plots if adult midges are active.

Adequate sulphur availability is important and should be applied routinely; it is suggested that it would be appropriate to apply 30 kg/ha of Sulphur (75 kg SO₃) routinely to all plots. Nitrogen and sulphur can be applied together as Ammonium Sulphate. 250-300 kg/ha of Potassium should also be available to the crop.

1.10.1 Nitrogen Applications

Bread-making management

Use PLANET software or refer to the AHDB Nutrient Management Guide (RB 209). Aim to achieve 13% protein content on the highest yielding variety in the sowing list.

Late N – apply extra N as a granular product at the end of May (approx. GS37) and/or as a liquid foliar spray feed at GS75. 40 kg/ha of N at GS37 will typically give a protein increase of 0.5-0.7% and 40 kg/ha N as urea can give a 0.75–1.0% boost.

Biscuit-making management

Biscuit-making requires lower protein than for bread-making and so should be managed to give optimal yield; late N should NOT be applied.

1.11 Records

Site, location, management and husbandry details only recorded in supplied workbook.

1.12 Harvest and Sampling

Each variety should be harvested when it is ripe, rather than waiting for later varieties to become fit. This is especially important during spells of wet weather, where delays to harvest may lead to depression of Hagberg Falling Number.

Sample requirements may change annually but it should be assumed that samples will be required from every plot unless advised to the contrary.

It is likely that the following samples will be required:

Predictive samples

Hagberg and protein assessment will be conducted on 1 kg samples from all varieties. The selection of samples for testing by collaborating laboratories will be made on these data. These samples should be a sub-sample of the larger samples and should be sent to the nominated laboratory as soon as they are at 15% moisture content or below. Full details, including the nominated laboratory will be sent in a harvest protocol prior to harvest.

Milling/baking samples

Milling and baking tests will be conducted on suitable samples by collaborating labs on the controls and candidate varieties. Around 40 kg of grain will be required from each variety for this purpose. The exact amount of grain required will be specified in the harvest protocol, which will be sent prior to harvest.

Labelling, drying and storage

Samples should be labelled inside and out and stored in clean cloth or Hessian bags at 15% moisture content or below. Samples should be dried, if necessary, using a cool air dryer the temperature of which should not be above 60oC. Samples should be kept in a dry, vermin free store until required.

1.13 Sample Despatch

The contact details of testing laboratories will be made available each year.

1.14 Carriage Costs

The contract for provision of grain includes the cost of drying and the carriage of samples.