



Are you the best student wheat grower in the country?

Test your crop management skills against other agricultural students, as well as arable farmer teams, to win the 2018 NIAB Agronomy Cup.

The NIAB Agronomy Cup is an annual unique trials-based crop challenge begun in 2012. It aims to engage with the next generation of agricultural advisors and crop scientists whilst showcasing practical agronomic science and crop research. Open to agriculture and crop science students from universities and colleges across the UK the competition is based on the outcome of a team's agronomy, farm management and agricultural decision-making skills.

But it differs from other crop trial competitions as these agronomic decisions are tested on fully-replicated field plots at a NIAB TAG trials site local to the team, rather than as a desk-based challenge or at a single central location. In this way the competition emphasises the importance of field observations, basing decisions on those observations and then understanding and interpreting the results from field trials. It also shows how local conditions may lead to differing agronomic decisions compared to a national view.

NIAB
AGRONOMY CUP



The competition in practice

The teams make agronomic input decisions for plots of the winter wheat variety KWS Siskin. NIAB TAG trials officers apply the recommendation to the plots at a NIAB TAG field trials site local to the team. The winning team is judged according to the margin achieved over the 'standard' and 'untreated' plots on their competition site at the end of the season.

Student teams are encouraged to use the plots as a learning opportunity through the season. Teams are advised that they must visit the plots, make their own observations and assessments of crop development and diseases, and take the opportunity to talk to the NIAB trial officers to find

out more about field experimental practice.

The focus is on engagement between students, crop lecturers, and the NIAB TAG agronomists and trials managers. We are also looking to include a 'farmer & agronomist' team again this year, comparing experience, skills, knowledge and innovation whilst recognising the importance of the younger generation within the industry.

What are the NIAB Agronomy Cup plots?

All competition plots are the winter wheat variety KWS Siskin. Each team's plots include four treatments, randomised in a block of five replicates, located at the NIAB TAG field trials site nearest to their college or university:

Treatment		Comments
1	Untreated	Standard fertiliser programme, but no fungicide or post-emergence herbicide inputs *
2	Standard	Standard agronomy **
3	Entry A	Inputs determined by entrants

* These plots will receive pre-emergence herbicides and slug pellets as appropriate, plus the standard farm applied nitrogen fertiliser inputs. The plots will receive no fungicides or PGR.

** In addition to the standard herbicide and nitrogen treatments these plots will receive a 'standard agronomy' input of fungicides, PGR and, as appropriate, additional late applied nitrogen. This 'standard agronomy' programme will be the same across all the competition trials (normally inputs proposed by NIAB TAG would be tailored to the individual sites).

How many teams can enter?

In 2018 the trials are set up so there can be at least two team entries at each trial site, with nine potential trial sites across the country. The teams will be judged against plots at the same site and plots nationally. Teams should preferably be of no more than four persons, one of whom will be nominated as the team leader.

What is required from each entrant?

Each team will be required to provide an input recommendation for their competition plots for:

- PGR
- Fungicide programme
- Additional fertiliser inputs (over and above the standard farm applied).

The choice of inputs will be restricted to the list of products provided and **all recommendations must comply with label regulations**. All competition plots are the winter wheat variety KWS Siskin and all will receive appropriate herbicides. Through the season all plots will also receive standard nitrogen fertiliser applications and slug pellets if necessary. Each team will be informed of the 'standard agronomy' input application rates and dates.

Do teams need to visit the plots to enter the challenge?

It is not necessary to visit the plots, but we would strongly advise teams to make recommendation decisions based on their own plot observations, assessing the crop state and disease levels. Field trials officers will not provide any plot agronomic information. Teams will get the most out of taking part in the challenge by visiting the trial regularly, discussing options with the NIAB TAG agronomists and talking to the local NIAB TAG trials team. As well as crop yield and grain quality the NIAB TAG trials officers will provide their own core set of disease assessments that can be used for comparison training and education.

When is the latest input recommendation required from each team?

23 March 2018

Fertiliser (above standard), PGR, T0 and T1 fungicide programme

4 May 2018

T2 fungicide (T3 if requested) and any additional late fertiliser.



How will team entries be evaluated?

- The competition plots will be harvested in summer 2018 and the plot yield and grain quality assessed.
- The winning entry will be judged on the basis of improvement in margin (£/ha) compared to the 'standard' treatment, with the final announcement made in January 2019.
- The entries will be from plots established at ten different sites.
- To allow for disease and inherent productivity differences that will occur between these sites NIAB will judge the entries as follows:
 1. Gross margin achieved compared to the margin on the 'standard' input plots at the relevant site;
 2. The increase in margin over the 'standard' will be calculated as a proportion rather than an absolute value;
 3. Wheat output prices will be taken as spot price on Friday 3rd August 2018;
 4. If the grain from a team's plots achieves the standard required for milling it will be reflected in the output price;
 5. Input costs will be the same across all sites.
- Maximum improvement in crop yield (t/ha) will also be assessed.

Input prices

Only products from the following list may be used in the NIAB Agronomy Cup challenge.

Fertiliser

Ammonium nitrate (34.5% N)	£240.00/tonne
Urea (46% N)	£290.00/tonne

Fungicides

Ascra (<i>bixafen + fluopyram + prothioconazole</i>)	SDHI	£40.00/litre
Adexar (<i>fluxapyroxad + epoxiconazole</i>)	SDHI	£31.00/litre
Aviator (<i>bixafen + prothioconazole</i>)	SDHI	£33.00/litre
Elatus Era (<i>solatanol + prothioconazole</i>)	SDHI	£50.00/litre
Seguris (<i>isopyrazam + epoxiconazole</i>)	SDHI	£36.00/litre
Librax (<i>fluxapyroxad + metconazole</i>)	SDHI	£33.00/litre
Tracker (<i>boscalid + epoxiconazole</i>)	SDHI	£20.00/litre
Vertisan (LEM)	SDHI	£25.00/Litre
Ignite (<i>epoxiconazole</i>)		£13.00/litre
Proline (<i>prothioconazole</i>)		£45.00/litre
Folicur (<i>tebuconazole</i>)		£ 9.00/litre
Brutus (<i>epoxiconazole + metconazole</i>)		£22.00/litre
Bravo (<i>chlorothanil</i>)		£ 4.00/litre
Cherokee (<i>chlorothanil + propiconazole + cyproconazole</i>)		£11.00/litre
Amistar Opti (<i>azoxystrobin + chlorothanil</i>)		£12.00/litre
Corbel (<i>fenpropimorph + cyclohexanone</i>)		£16.00/litre
Talius (<i>proquinazid</i>)		£69.00/litre
Comet (<i>pyraclostrobin</i>)		£27.00/litre

Growth regulators

70% chlormequat	£ 1.70/litre
Moddus (<i>trinexapac-ethyl</i>)	£26.50/litre
Terpal (<i>mepiquat chloride + 2-chloroethylphosphonic acid</i>)	£ 10.00/litre

Trials sites/NIAB centre

Lincolnshire - Caythorpe
Northumberland - Berwick
Herefordshire - Callow
Hampshire - Sutton Scotney
Shropshire - Telford
Norfolk - Morley
Cambridgeshire - Cambridge
Gloucestershire - Cirencester
Devon - Newton Abbot
Yorkshire - Headley Hall

Key 2019 dates

1 st March	Initial plot disease assessments by NIAB TAG trials officers
23 rd March	Deadline for fertiliser (above standard), PGR, T0 and T1 fungicide programme recommendations from teams
4 th May	Deadline for T2 fungicide (T3 if requested) and any additional late fertiliser recommendations from teams
Late spring (GS75)	Additional plot disease assessments by leaf layer by NIAB TAG trials officers
Prior to harvest	Plot lodging assessment
September	Interim harvest data (grain yield and quality) available
January 2019	Final report and 2018 winners announced



Social networking

Tweet us photos of your trial visits @NIABTAG using the hashtag #NIABAgronomyCup. Please keep in contact with NIAB's communications team with updates and pictures throughout the season, for publicity use (pherenice.noble@niab.com / 01223 342425)

The winning team will receive:

- the official engraved NIAB Agronomy Cup
 - personal mini NIAB Agronomy Cup
- a day out with a NIAB TAG Regional Agronomist
- free entry to a NIAB TAG Technical Conference

Key site contacts for team

NIAB field trials site/ NIAB Centre	Agronomy contact	Contact details
Lincolnshire - Caythorpe	Patrick Stephenson	patrick.stephenson@niab.com, 07973 537427
Northumberland - Berwick		
Hampshire - Sutton Scotney	Ian Midgley	ian.midgley@niab.com, 07718 191057
Shropshire - Telford		
Devon - Newton Abbot		
Herefordshire - Hereford		
Norfolk - Morley		
Cambridgeshire - Cambridge		
Yorkshire - Headley Hall		
Gloucestershire - Cirencester	Richard Overthrow	richard.overthrow@niab.com, 07974 391724