



2020 MEMBERSHIP REVIEW

A YEAR TO REMEMBER... OR FORGET?

2020 is definitely a year that we will remember for generations to come. The coronavirus pandemic turned the world upside down and who knows when we will return to some kind of normal.

Remember how ordinary everything was at the beginning of the year? January and February can be one of our busiest times with regional east and north conferences – Biggleswade and Kettering at Wyboston, the Essex and Suffolk, then Norfolk, quickly followed by Bainton, and finally Lincoln, with a few professional development and ARTIS training days scattered here and there. Normally this is a great time to catch up with members all around the country and discuss results from membership trials and hot topics of the day.

At the same time, our new Cambridge HQ finally opened, literally a few hundred yards from the old one. The original 100-year old Huntingdon Road HQ would not meet many of today's building standards and lacked the facilities required. By the beginning of March everyone had moved into our new offices – just as the coronavirus lockdown began.

We are proud that we ensured that NIAB remained open throughout the lockdown – field trials still had to be drilled, sprays applied, plant counts to be made, lab work to be assessed. The majority of trials did get established, finally; the Cambridge winter wheat variety demonstration was drilled on the 30th January. The NIAB regional field teams did an amazing job, some having come through one of the wettest winters ever and still drilling winter wheat into February, they continued into one of the driest springs ever. This season, one of the most difficult ever, is now almost over with the majority of the harvest in. There will not be many record yields to boast about, and we hope that the 2020/21 season will be more forgiving.

But throughout one of the most challenging years for us all – in business, on farm, at home – NIAB has, and will, remain a unique, independent, science-based organisation that ensures research findings are transferred effectively onto farm for your benefit. We always welcome feedback, ideas, and suggestions on all membership issues via the membership office (mary.mcphee@niab.com or 01223 342495), directly with your Regional Agronomist or through your local technical committee representatives (contact details available via the membership office).

We thank you for your continued support, stay safe and best wishes,

Bill Clark

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THIS YEAR'S HIGHLIGHTS

Opening of new HQ

A new modern NIAB campus opens in Cambridge

Virtual events

Video tours and webinars replace open days and conferences

The weather

A wet autumn and dry spring pushed growing conditions to the limit

New staff

Increased team of agronomy specialists

Weeds, pests and diseases

Adapting and finding solutions to fresh challenges from old and new foes



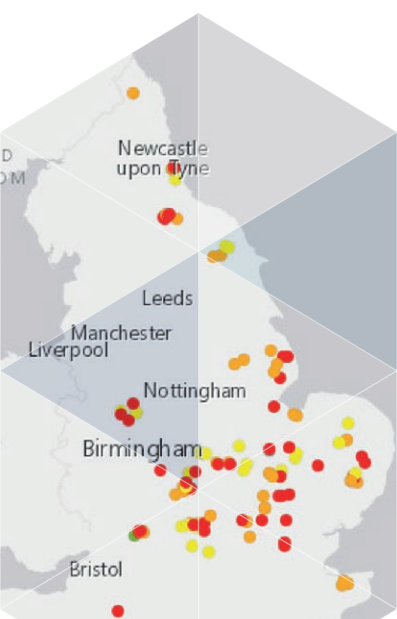
Your membership service in 2020

Our membership service is continually adapting to new challenges to ensure our research is always relevant, our services up-to-date and our offer is good value for money. NIAB continues to invest in new technology, new approaches and new thinking, delivering technical advantages to members' farming businesses all over the UK.

Here we summarise how NIAB TAG has translated research into practical information and advice during 2020 for the benefit of our members who sit at the heart of our industry and research network. Despite this year's communication challenges we reacted very quickly to ensure continuity of service, providing virtual meetings and field days within a few weeks of lockdown starting. We have been amazed at the positive response and attendance, and thank our host farmers who now have a second role as chairmen of Zoom conferences

Crop development and growth stages

Just how late can winter wheat seed, sat in the shed since September, be sown? By the end of February it was mainly Skyfall and KWS Firefly that could be safely sown, although many took a risk with other varieties. By the beginning of March only about 60% of the winter cereals had been sown. NIAB provided as much information and reassurance about late drilling and management of late-drilled crops as possible, with issues covering vernalisation, growth stages and timings of fungicides, nitrogen and PGRs and an opportunity for black-grass. It has also left a legacy of tonnes of undrilled winter wheat sat in the shed to be used this autumn. Much of this seed can and will be used this autumn but seed testing with NIAB LabTest will be more important than ever.

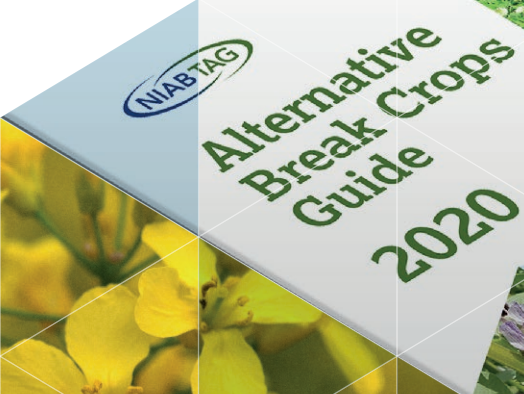


Disease pressure

NIAB continues to monitor yellow rust races via the UK Cereal Pathogen Virulence Survey (UKCPVS), looking for new or emerging races of the pathogen. Despite late drilling, active yellow rust was found in many wheat crops from January onwards, January drilled variety trials showing high levels on Skyfall and KWS Kinetic in March. The disease was seen all over the country, mainly in the east, on a wide range of varieties, although they were not equally affected around the country. We wait to see if 2020 was a 'low disease' year depending on the yield responses to fungicides. Remember 2019 – another 'low disease' year when the average yield response to fungicides was 3.9 t/ha. In 2020 it was noticeable that fungicide programmes were giving big effects on crop greening in the apparent absence of disease on varieties such as KWS Extase.

Oilseed rape

NIAB has been working on identifying companion crop species that could improve WOSR establishment when under attack from cabbage stem flea beetle. White mustard has given the most promising results, but further work is needed to optimise its use. Without robust chemical or cultural controls more farm businesses are assessing the future of WOSR; at least in the short to medium-term. New break crops that could act as alternatives are currently not widely available for growing on the scale that winter oilseed rape is, but NIAB TAG has provided a new Alternative Break Crops Guide, alongside a suite of individual crop information sheets, to aid members in crop choice.



New staff and centres

This year we welcomed Colin Peters as our new break crops specialist, following Simon Kightley's retirement in the late spring after nearly 41 years service at NIAB. Crop protection and agronomy specialist Aoife O'Driscoll joined at the same time, alongside new colleagues entomologist Gia Aradottir and UKCPVS manager Lucy James. And we added our 11th and 12th new regional trials centres, with the addition of Dorset (Wimbourne) and Gloucestershire (Cirencester), managed by Ivan Brain and Poppy de Pass.

Events go online

Spring 2020 is when everybody became a video star. On lockdown NIAB's Agronomy and Communications Teams stepped up and immediately went online with videos and live streams of field days, plot tours, agronomy advice and vlogs – much of which is still applicable and available on either the members website or on the new 'Virtual Events Hub' on niab.com. The virtual trial tours had unexpected benefits with the ability to 'visit' a trial several times, rather than just the single snapshot visit on the Open Day. And we provided content and seminar speakers for a number of virtual trade events and webinars across the summer, including CerealsLIVE, AgriTechE's Innovation Hub and NOC's LiveWheat.



Aoife O'Driscoll

Colin Peters

Steve Cook

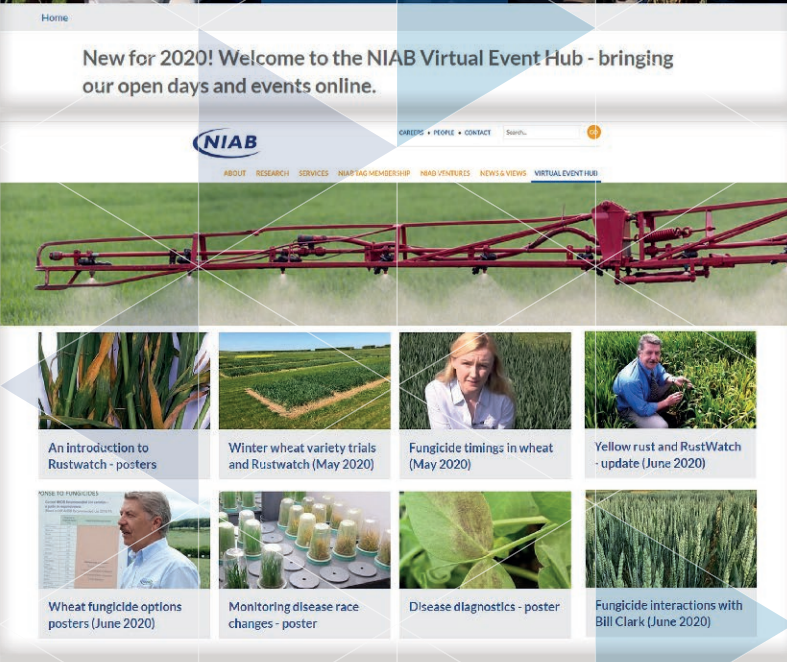


Cereal disease control

The withdrawal of chlorothalonil in 2020 was a real loss to the industry, with the future of septoria and ramularia control in people's minds. NIAB TAG membership trials clearly show the activity of alternative multi-sites in septoria control programmes, but at some significant cost. Other multi-site fungicides do have activity against septoria, though not as active as chlorothalonil. In the short term, the bulk of the septoria control will come from the new triazole mefentrifluconazole (in Revystar) and, hopefully, Inatreq from Corvea which should be launched in 2021. The new fungicide chemistry looks very exciting, although some of the more recent SDHI products can still provide good control if used well. Improved disease resistance packages in newer wheat varieties, especially to septoria, are allowing considerable savings in fungicide programmes. The NIAB TAG Variety Interactions Handbook encompasses all of this information and is now one of our most-used publications, giving guidance on the fungicide requirement of varieties.

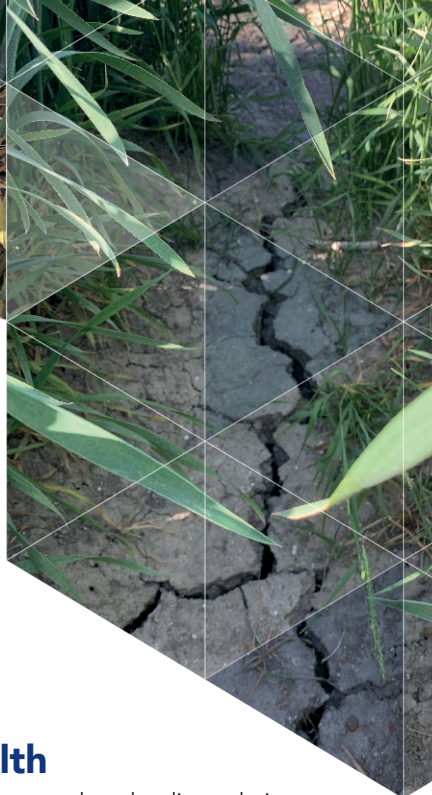
Black-grass research

In some NIAB TAG trials, applying some pre-emergence herbicides in a water volume of 100 l/ha has been shown to be at least as effective as 200 l/ha. Occasionally higher water volumes were shown to be more effective but this was not a consistent effect. Our advice highlighted that water volume must be considered alongside the time taken to spray all of the crop area required. Any extra control benefits from higher water volumes can be lost if spray timing is delayed or missed in the autumn.



Climate and weather

Summer 2020 was almost a repeat of 2019, with July and August temperatures in the mid 30s, with very little rain until just before harvest. Such high summer temperatures do appear to be becoming the norm, something we will have to learn to adapt to. NIAB TAG's variety/fungicide interaction experiments have become increasingly important in helping to select varieties that are resilient in extreme as well as 'normal' seasons. This includes selecting varieties with drought tolerance, high nitrogen use efficiency and good disease resistance.



Soil health

NIAB continues to take a leading role in the science behind the maintenance and improvement of soil health. Our team of soil experts deliver a wide programme of research and training on soil function and are actively involved in providing NIAB and ARTIS training on soil management. Working with The Morley Agricultural Foundation, NIAB is running long-term trials testing the impacts on soil fertility, soil structure and overall soil health of organic matter additions, cultivations, and rotations. In addition, NIAB is actively leading research on root-soil interactions, soil biological indicators and the role of soil's microbiome in plant health. In 2020 NIAB worked closely with the University of Cambridge Institute for Sustainability Leadership (CISL) and ASDA to provide guidance on how assessments of soil health indicators can be made most effectively on-farm. The resulting 'Soil Health Assessment Guide' was produced to help farmers to be good stewards of soil health on farm. This is available on the NIAB corporate website and the members' website.



Grass weed herbicide resistance

Although black-grass management remains a challenge for many, wild oats seem to be on the increase, with the reduction in the use of ALS-based herbicides for black-grass control undoubtedly a contributing factor. This summer NIAB TAG offered free herbicide resistance testing of wild oat samples and was inundated with samples. Many of the samples sent in contained winter wild oats (*Avena sterilis* ssp. *ludoviciana*) as well as the more widespread common wild oat (*Avena fatua*).

Winter wild oats were previously thought to have very localised distribution; these early samples suggest this is not the case.

Results of resistance testing will be made available early next year.



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