

Plant Breeding Matters



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Information from the British Society of Plant Breeders

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As uncertainty continues following changes in legislation post-Brexit, there are still delays in National Listing and concerns over imports and exports. BSPB is working closely with Defra and APHA to seek clarity and offer advice to our members.

I have also written to MP, Jo Churchill, to layout the concerns our sector has and ask for actions to resolve the delays we are experiencing. Particular emphasis was on the delays to the National List and the Plant Varieties and Seeds Gazette. It is hoped that this direct approach will encourage her to meet with us and discuss topics of concern in more detail to help reach solutions.

EU PRM legislation has been discussed in a recent review and BSPB remains supportive of the current position, that the legislation fulfils its purpose to ensure new varieties are brought to the market, but has called for the process to be streamlined, especially on a species-by-species basis.

Great progress has been made in the recognition of new genomic technologies as an important tool for the future of agriculture. The House of Lords has passed a Statutory Instrument and BSPB continue to work with Defra to support the successful delivery of primary legislation in the future to change the definition of products produced by new genomic technologies and developing a clear route to market.

We are expecting a fee review from Defra for National List applications, PBR and certification. BSPB will be working closely with members to highlight their position and concerns to Defra about any increases in fees, and more information will be given once this has taken place.

 **Sam Brooke / BSPB Chief Executive**



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NEW AHDB RECOMMENDED LIST UPDATES

The Recommended List has recently been updated and AHDB's Paul Gosling has provided PBM with what is new and what the new 2022-2027 strategy will focus on.

Paul explains:

There have been plenty of new varieties added, with a diverse range of types and traits spread across most agronomic areas. Disease resistance and new quality traits feature strongly across all crops. This is reflected in genetic improvements that have been introduced to increase Septoria resistance in high yielding milling wheat. This is testament to breeders' efforts and demonstrates the benefits of plant breeding to yield and disease resistance.

In the feed wheat sector, the yield gains continue to be pushed by the newcomers and the first winter barley with BYVD tolerance has been added to the list. This will help growers tackle yield losses that are increasing as our climate is becoming warmer. It is also likely to help mitigate the restraints brought about by continued pesticide restrictions.

There is a new look for spring barley this year, with the addition of a 'described variety' section, which

comes with the Null-Lox trait. This is particularly well suited to brewing, especially for lager type beers, offering better shelf life and head quality.

Having moved away from recognising the Common Catalogue post-Brexit, ensuring new OSR genetics are tested through the National List and Recommended List system is ever more important. It is therefore encouraging to see new varieties being added this year. Importantly, we are also seeing some steps forward and genetic differences in disease resistance. The listing process for OSR has also been changed to make it easier for conventional varieties to be featured on the list.

Lastly, Clearfield varieties with tolerance to some herbicides including imidazolinone, have been added. This offers UK farmers greater choice in a small but important market and has shown big increases that will help to cut down potential yield penalties.

PHYTOSANITARY CERTIFICATE UPDATE

From 1st July 2022 it will be a requirement to notify the Animal and Plant Health Agency (APHA) or Forestry Commission (FC) when importing regulated and notifiable plants and plant products, with the only exception being those moving from Northern Ireland to Britain. In addition, all regulated plants and plant products imported to England, Scotland and

Wales from the EU will also require phytosanitary certificates. Lastly, more regulated EU plants and plant products will have identity and physical inspections. These will be placed at authorised border control or inland control posts in Britain, and inspections of high-priority plants and plant products will move from place of destination to border control or inland control posts.

For more information visit: <https://planthealthportal.defra.gov.uk/eu-exit-guidance/imports/>

RECOMMENDED LIST STRATEGY

Paul Gosling also explained how the strategy of the Recommended List has been made public for the first time. The strategy has been developed by BSPB, AHDB, MAGB and UK Flour Millers to demonstrate what the Recommended List aims to achieve. Paul says:

“We want to demonstrate that the list never stands still and that it is continually evolving to reflect grower and industry demand. We are looking to address what farms, millers, maltsters, and the wider food chain need, by consulting more widely and sharing more information. It is clear that we are facing ever increasing challenges, such as a loss of chemistry, the changes in farm payments and the increased price of inputs. We are having to rely more on genetics and that is why these changes in strategy are being made.”



■ Paul Gosling

By responding in this way, it is hoped that levy payers will better understand and appreciate AHDB's response to the Recommended List and engage to offer feedback that will help shape it in the future.

Sam Brooke said: “We welcome the strategy and the opportunity to interact with the industry. We hope that this will make them aware of the changes that are happening with the Recommended List and how important it is to farmers.”

SUGAR BEET UPDATE

The future of British sugar beet production is under threat from foreign imports, increased costs, and a lack of government support, suggests Ian Munnery, general manager, SESVanderHave.

With the announcement that 260,000 tonnes of imported sugar cane will reach our shores from other markets, namely Brazil, there is cause for concern that British sugar production will become unsustainable in the years to come.

Like many minor crops, sugar beet is critical to crop diversity in the UK. Despite advances in genetics that have seen yields increase by 1.5% year on year for twenty years, we are still fighting for the security of British sugar production.

Sugar beet is a good news story compared to cane. It uses five times less water and requires fewer food miles. However, this has not stopped the threat of competition from cane-producing nations which is causing investment in the sector to wane. A decision to allow 260,000 tonnes of imported cane sugar clearly shows a lack of willingness to sustain the sector in the future, especially when the quota for beet has not increased beyond the existing 1 million tonnes.

Genetics and plant breeding can offer solutions to this issue. By breeding varieties that can reduce the use of chemistry and nitrogen, whilst increasing yields, we can help to mitigate the threat that imports pose. More robust varieties are the answer to the problem, but breeders need the security that the UK market can be sustainable in order to invest.

Further efforts are being made to advocate support for UK sugar beet production and it is hoped that by advocating the importance of sugar beet to crop diversity and the economy, that a sustainable trade in British sugar can be maintained.

BBC Countryfile featured some of the challenges facing sugar beet growers in this episode which you can watch back on the BBC i-player

<https://www.bbc.co.uk/iplayer/episode/m0014rqg/countryfile-holkham>

SUGAR BEET INDUSTRY COMMENT

CEO of the BBRO, Vicky Foster, helped clarify the importance of sugar beet productions when she spoke to Sam Brooke to say: The UK sugar industry has benefited greatly from developments in plant breeding over the last two decades to boost both yield and agronomic



■ Vicky Foster, CEO of the BBRO

features of UK sugar beet. The sugar beet sector is a close-knit and well consolidated industry, working together for the benefit of both growers and the commercial sector. Research and development has been key to this, and with a well structured variety approvals process, which has worked well to date, with clear targets and timelines. However, this is potentially under threat post-Brexit due to changes in regulation, processes, and very limited funding. BBRO works closely with the plant breeders to undertake research on new material and near-market varieties, to provide additional testing of traits and data to feed into recommended varieties that then become commercially available to growers. We all have the same goal – to secure a UK sugar beet industry that is sustainable and profitable for all stakeholders and allows us to compete globally with a high-quality product. It is critical that investment continues in this sector to ensure sugar beet remains a competitive

break crop for UK farmers, and as an industry continues to support c. 9000 jobs in the UK.

Daniel Green, Agriculture Director, British Sugar has commented on the importance of plant breeding to sugar beet saying:

“We have created a world-class sugar beet industry in the UK that significantly contributes to food security and farming needs for this country. Investment and research within seed technology has a significant role to play within this success as well as finding new solutions when we are faced with challenges.

“One such example is finding a solution to the impact that Virus Yellows has on the sugar beet crop without the use of neonicotinoid seed treatment. UK plant breeders have a significant role to play in helping to find solutions, such as Yellow Virus-tolerant seed varieties and new seed treatments that ourselves, the British Beet Research Organisation, and NFU Sugar are striving to secure together. We need to ensure that UK plant breeders don’t lose future investment and innovation as this could have a damaging impact for their industry, as well as the wider agricultural industry in the UK, and innovative techniques like gene-editing in the future.”



■ Daniel Green, Agriculture Director, British Sugar



GENE EDITING ANNOUNCEMENT

Defra has announced that new powers will be granted to explore and research gene editing in plants. New legislation laid before Parliament will simplify requirements for members to undertake plant-based research and development, using new genomic technologies such as gene editing, more easily.

The rules will apply to plants where gene editing is used to create new varieties similar to those which could have been produced more slowly through traditional breeding processes, and will unlock research opportunities to grow crops which are more nutritious, and which require less pesticide use.

This has opened up significant opportunities to keep pace with demands for increased agricultural productivity, resource-use efficiency, more durable pest and disease resistance, improved nutrition, and resilience to climate change.

The announcement is a small but important step towards more proportionate and enabling regulation, in line with the Government's pledge to liberate our biosciences sector. We now look forward to an early announcement from

Defra on plans to introduce the new primary legislation needed to deliver on the Government's commitment to free up genetic innovation.

The recent passing of a Statutory Instrument from the Houses of Parliament will enable the trialling of varieties produced by new genetic technologies, such as gene editing, to take place in England. Its approval in the House of Lords on 14th March has been welcomed by the British Society of Plant Breeders (BSPB) and CEO Sam Brooke commented:

"This legislation will enable UK plant breeders to continue their established world leading research and development which brings crucial new varieties to farmers. Using this new technology will help to contribute to agricultural productivity, which is vital in these challenging times."

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