

Plant Breeding

Matters

Information from the British Society of Plant Breeders

AUTUMN 2022

It has been a pleasure to connect with members, farmers and others in the industry, at events such as Cereals this summer. The harvest has come in at an alarming rate due to the hot and dry conditions and many will reflect on how early crops were taken off.

In this PBM we have chosen to focus on pulses as an important break crop. Pulses represent a growing sector following increasing interest in home grown protein. However, with few seed treatments available for pulses, seed quality is paramount, and, in this issue, we hear from three industry spokesmen about how pulses are an important crop.

There is an update on the precision breeding bill and BSPB continues to work closely with DEFRA to promote the importance of precision breeding. BSPB attended and gave evidence at the committee stage for the bill and has also submitted written evidence to support the use of PBOs.

Lastly, the AIC and BSPB are pleased to be able to invite you to the annual seed trade dinner and networking event at The Principal York Hotel on Thursday 1st December 2022, at 7.30pm.



Sam Brooke / BSPB Chief Executive



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FOCUS ON PULSES

Roger Vickers – CEO - PGRO

In general pulses prices have risen with the market for other commodity grains throughout the year and have remained good through 2022 to date.

The results of crop 2022 will not be fully appreciated for a little while, but it cannot be denied that the drought and heat certainly took a toll on spring sown crops, which for some growers was severe.

A typical range for beans will have been between 2 and 6 t/ha with Winters having performed better than Springs, while peas have been recorded as low as 0.5t/ha up to almost 3t/ha. The exceptional dryness of pulses at harvest alone, can be assumed to have reduced yield potential by up to 4%, also contributing to further potential losses through shedding at the combine header. The overall picture for the UK is mixed, with probably slightly under average crop performance, reflecting some real successes and some absolute failures.

A real assessment of the likely supply for the trade will be more reliably available once the DEFRA June survey crop area figures are released later this month, laying to rest the uncertainty about the areas sown in 2022.

Uncertainty and concerns over fuel and energy prices continue to cause the market to be unsettled. This applies not just to the UK but also to significant export markets, especially in light of October's political events which have seen the value of pound fall and the conflict between Russia and Ukraine escalate.

Human consumption bean exports are faced with an Egyptian market suffering 45% inflation rates, disastrous economic forecasts, and poor cash flow with massive restrictions on US dollar imports as a result.

Competition from Australia is likely to increase and 800,000 tonnes of Bruchid free beans is expected. The Baltic states are likely to yield 300,000 tonnes. However, this will depend on the extent of the insect damage experienced in the region.



■ Roger Vickers

Protein production facility developments in Europe present new market opportunities for growers in Germany and other central countries. Supplying these is likely to see regional increases in production of peas and beans in Europe.

Lastly, Canadian peas yields have been very good and the values relatively low, which is adding interest and complexity to the export opportunities in Europe.

Values in brief

Feed beans - Traded from around £300 to £310/t ex farm, the market is stable at the moment, but the future is uncertain.

Bean exports – Spring bean quality is poorer this year, yet winter varieties have been strong. A small premium for human consumption exports is currently around £20-25/t (perhaps £325/t ex farm) due largely to difficulties in the economies of the importers presenting risk to the exporter.

Green Peas – A generally good crop yield with little bleaching apparent in the earlier harvested crops and a good overall colour. Prices from £295 /t to £330/t ex farm might be achieved for crops off contract.

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FOCUS ON PULSES

Marrow Fats - Of the different pea types these perhaps suffered most. Grains are often small and lacking their characteristic blocky shape. The smaller seed size has further impacted marketable yield. Demand is likely to exceed supply with values for good quality open market crops potentially as high as £600/t ex farm, although there are thought to be few, if any available.

Contracts for 2023 are available with various values with the very realistic opportunity to receive £570/t ex farm.

Yellows – opportunities in the flour and protein sectors has seen demand for yellows rise and, as long as they pass soaking and cooking tests, up to £330/t ex farm is realistic.

Diary Date:

Pea and Bean Conference 9th November - Boston

<https://britishgrowers.org/events/uk-pea-bean-conference-9th-november-2022/>

Croptec 23rd+24th November- Peterborough (Descriptive List for pulses 2023 released)

<https://www.croptecshow.com/>

Chris Guest – Managing Director, LSPB

Overall, pulses are environmentally the best break crop. Whilst not always considered the most profitable, there are significant benefits including reducing fertiliser use, encouraging beneficial insects, and fixing nitrogen, as well as the recognised yield benefit for a following cereal crop. The drive for homegrown protein is fuelling demand for varieties suited to the UK's climate and soils. LSPB is a market leader in peas and beans, with a commitment to investment in pulses. 20 years ago, people were asking 'are pulses a crop to support?' but we have always been offering advancements in genetics to strengthen pulse crops against common threats such as downy and powdery mildew.



■ Chris Guest

In the UK we have focussed on improving pulse qualities for mono-gastric livestock to enable greater quantities of pulses to be used in the ration. It is hoped that this will reduce the reliance on imported soya and provide a self-sustaining homegrown protein system.

To improve the viability of pulses in the rotation we have worked on improving maturation to see crops harvested earlier, creating more sustainable windows for planting the following crop. Yukon, spring bean, is up to two weeks earlier to mature than most mainstream varieties, especially further north, and whilst it is slightly lower yielding in trials, it offers many farmers the security of a longer wheat planting window.

Peas are, only now, being appreciated as more than just an export crop. In the UK we can grow higher value pea varieties such as marrowfats. New genetics for marrowfats that provide greater resistance to downy mildew are being developed as a reaction to the limited investment from the Ag-chem sector. Earlier maturing types are becoming a breeding target since the loss of desiccants to aid colour retention for high value end-use markets genetic resistance remains a key focus to reduce downy mildew and, later in the season, powdery mildew, but we are yet to find a solution to the Bruchid beetle threat in the bean crop so we keep working!

FOCUS ON PULSES

Tom Yewbrey – Seed Sales Manager, Senova

Senova predominantly breeds winter beans and acts as an agent for spring peas and beans. In conjunction with Aberystwyth University, we are working to improve yield and agronomic characters in varieties that are suited to the production of domestic homegrown protein, as well as the more traditional export markets, such as northern Africa and the Middle East. Investment in the pea sector is growing, and peas are becoming a more popular crop in the UK. The collaborative 'PeaGen' pre-breeding project is seeking to develop new varieties with enhanced legumin and vicilin qualities, aimed at the homegrown protein market for mono-gastric feed. There is also an increased interest for peas and beans in human food, especially with the rise in plant-based products, milk alternatives, and 'healthy' snacks. This is driving up demand and making growing peas and beans in the UK much more attractive.

As a breeder we need to make sure we can provide varieties that the supply chain requires. Whether for increasing protein content and enhancing quality or breeding varieties better suited to British growing, we are working to achieve this.



■ Tom Yewbrey



ANNUAL TRADE SEED DINNER

The Principal York Hotel
 Thursday 1st December 2022, 7.30pm.

TRAIT PROTECTION SCHEME

A priority for seed development is the need to include traits that can help to minimise the use of chemicals. BSPB has introduced the Trait Protection Scheme to support breeders who are bringing new traits to seed varieties that suit UK conditions.

The seed royalty on certified or farm saved seed will remain the same. However, growers will need to pay an additional trait fee for varieties in the scheme. BSPB will make sure to let everyone know what varieties are in the scheme to ensure that growers are aware of which varieties carry a trait fee. There will also be just one set of forms to fill in, and both the royalty and trait fee can be paid through BSPB. This will help promote the awareness and value of these traits so that investment in new traits is secured for the future.

BSPB ONLINE DECLARATIONS

Not only are online declarations faster and easier, they also save a lot of unnecessary paperwork. BSPB has built a new website with a new portal to reduce paper waste.

The website allows you to complete your FSS declaration quickly and complete returns for combinable crops and potatoes. Over the last 12 months, 64% of royalty declarations have been made digitally, significantly saving the amount of paper and packaging previously used. For more information, and to make your declaration, visit: <https://returns.bspb.co.uk/>

PRECISION BREEDING BILL UPDATE

BSPB has given evidence to the precision breeding bill committee to support and promote the use of NGTs such as gene editing and the creation of PBOs.

BSPB welcomes the Government's plan to make controls on these breeding technologies more proportionate and science-based, aligning our rules with other countries such as Australia, Japan, Argentina and Canada. Changing the way new agricultural breeding technologies are regulated, by taking precision breeding out of the scope of GMO rules, will encourage research and innovation to develop healthier, more nutritious food, and to make farming systems more sustainable and resilient in the face of climate change.

It is hoped that the bill will be passed by the House of Lords in 2022 and, following royal assent, it will be issued shortly after.

EVENTS

- BSPB AGM –Friday 14th October at Glaziers Hall, London
- Crop Tec Show 23rd 24th November – Peterborough www.croptecshow.com

Please contact BSPB for more information



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