

BUILDING A HIGHER-VALUE SCOTTISH PULSE SUPPLY CHAIN

Insights from farmers and the wider supply chain on the opportunities, barriers and practical steps needed to increase pulse production in Scotland.



SAOS

BOFIN

NCS
NITROGEN CLIMATE SMART

Executive Summary



"Farmers need confidence in where their crop is going. Without clear routes to market and confidence in long-term demand, taking on the risk of growing more pulses remains difficult."



Helen Glass,
Head of Supply Chain Innovation, SAOS

Scotland has a real opportunity to grow a stronger, higher-value market for home-grown pulses, but getting there will take more than simply encouraging farmers to grow them.

At the BOFIN North Inspiration Day, delivered as part of the NCS project , and in partnership with SAOS, farmers, researchers and wider industry representatives explored what it would take to turn that opportunity into a viable supply chain.

A clear message emerged: farmers need confidence in the market before they can be expected to take on the risk of growing more pulses.

There was plenty of appetite around the table. Pulses have the potential to improve farm resilience, reduce reliance on imported protein and manufactured nitrogen, open up new income streams and contribute to wider environmental and healthy eating ambitions.

But one message came through particularly strongly: farmers need confidence in where their crop is going.

Without clear routes to market and confidence in long-term demand, taking on the risk of growing more pulses remains difficult.

Participants felt that market pull and confidence in end use could ultimately do more to drive uptake than policy support alone.

That does not mean policy is unimportant. Financial incentives, investment in plant breeding, farmer-led research and knowledge exchange could all help make pulses a less risky proposition. But these measures need to sit alongside work to develop demand in food and feed markets and create stronger connections across the supply chain.

The workshop pointed to the need for a joined-up approach, bringing farmers, breeders, advisers, processors, manufacturers, retailers, health professionals and government together to create a market that works from farm to fork.

About the report contributors

the Scottish Agricultural Organisation Society (SAOS) is Scotland's expert organisation for farmer co-operatives and food industry collaboration, working with farming and food businesses to make them more profitable, competitive and sustainable.
Established in 1905, SAOS brings people and businesses together to tackle shared challenges and develop new opportunities across Scotland's farming and food sectors. Its work spans supply chain collaboration, co-operation and market development, helping shape a more resilient future for Scottish food and farming.
Find out more: **www.saos.coop**

The British On-Farm Innovation Network (BOFIN) brings together farmers, scientists, knowledge exchange specialists and industry innovators to support farmer-led research and innovation.
Founded in 2020, the network has around 3,500 members, including more than 700 farmers. BOFIN provides a platform for farmers to collaborate with researchers and industry, take a more scientific approach to on-farm trials and share ideas, experiences and results.
BOFIN is one of the 17 partners delivering the NCS project.
Find out more and join: **www.bofin.org.uk**

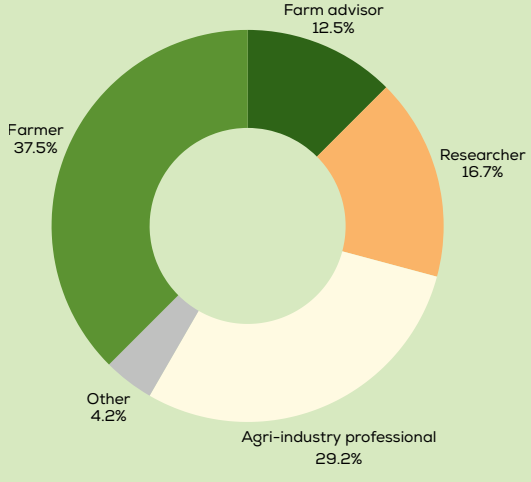
Nitrogen Efficient Plants for Climate Smart Arable Cropping Systems (NCS) is a four-year, £5.9m research programme involving 200 UK farms and 17 partners.
Led by PGRO, the project aims to reduce UK agricultural emissions by 3.4Mt CO_2e per year by increasing pulse and legume cropping in arable rotations to 20%, while replacing 50% of imported soya meal used in livestock feed with home-grown legumes.
The project combines scientific research with evidence from commercial farms to explore how pulses and legumes can support productive, profitable and more climate-smart farming systems.
Find out more: **www.ncsproject.co.uk**

The NCS Project is funded by the Farming Futures R&D Fund: Climate smart farming, part of Defra's Farming Innovation Programme. Defra is working in partnership with Innovate UK, which is delivering the programme. Project number: 10043778.

About the participants

The meeting brought together 30 representatives from across Scotland's pulse supply chain, creating a mix of perspectives from those growing crops through to those researching, advising on and developing markets for them.

Farmers formed the largest group, accounting for 37.5% of participants, including six NCS Pulse Pioneer farmers with first-hand experience of growing pulses within Scottish farming systems.

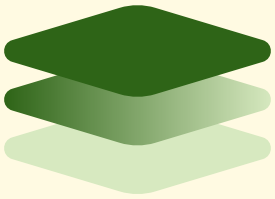


Key findings



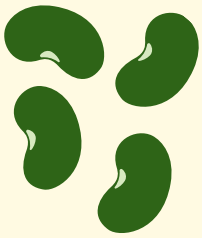
Market confidence is critical

Farmers need clear, reliable destinations for their crops before committing more land to pulses.



Growing pulses must stack up commercially

Precarious farm profitability makes taking on additional cropping risk difficult, despite recognition of the agronomic and environmental benefits.



Demand needs to be developed alongside supply

Opportunities exist in higher-value food markets, livestock feed and public procurement, but these need to translate into clear routes to market.



Farmers need the right tools and knowledge

investment in plant breeding or development of improved varieties, farmer-led trials, grower groups and knowledge exchange could help reduce the technical risks associated with pulse production.



No single part of the supply chain can deliver change alone

Greater alignment is needed between farmers, breeders, processors, manufacturers, retailers, government and end users.

Four key themes

Four themes came through strongly from discussions, spanning markets, farmer risk, varieties and demand. **Underpinning them all was the need for greater collaboration across the supply chain.**

Farmers cannot create a market without processors and buyers, while end users cannot build reliable markets without confidence in supply.



The opportunity

The workshop established a shared ambition to give Scottish farmers greater opportunity to sell pulses into higher-value food and feed markets, rather than relying predominantly on own-farm use or residual animal feed markets.

Participants identified several potential benefits from developing that market:

- More value on farm (financial, rotational, ecological etc.)
- Diversified farm income and greater value retained by Scottish farming businesses
- Reduced reliance on imports
- Increased use of Scottish grown beans in livestock diets, as an alternative to imported soya
- More resilient farming systems
- A valuable break crop within rotations, with potential to reduce reliance on manufactured nitrogen fertiliser and other inputs
- Lower input requirements and the potential to reduce carbon emissions
- Wider food and health opportunities
- A contribution to Scotland's Good Food Nation ambitions through healthier diets, new food markets and public procurement

The opportunity is therefore about more than growing additional hectares of pulses. It is about developing a market capable of recognising and rewarding their wider value.

Building confidence from both ends

Turning that opportunity into a functioning market means overcoming one of the clearest challenges identified in the workshop: confidence needs to exist at both ends of the supply chain.

Confidence needs to flow in both directions.

Confidence in supply ⟷ Confidence in demand

That creates something of a 'chicken and egg' challenge. Farmers are unlikely to take on the risk of growing more pulses without confidence in demand, but new markets are difficult to develop without confidence in supply. The opportunity lies in breaking that cycle by developing supply and demand together.

From opportunity to action

The workshop discussion moved beyond identifying barriers and opportunities to consider where action could have the greatest impact. Ideas were prioritised according to their importance and perceived difficulty, highlighting longer-term strategic priorities alongside actions where progress could potentially be made more quickly.

	What needs to happen?	Why it matters
STRATEGIC High importance, harder to achieve	Develop food markets for Scottish pulses	Create the market pull needed to support greater production
	Grow feed demand, particularly in pig, poultry and dairy	Provide a home-grown alternative to imported protein
	Secure long-term supply commitments	Give growers and buyers greater confidence
	Develop supportive policy and incentives	Help de-risk the decision to grow pulses
	Expand public procurement opportunities	Create new, potentially dependable routes to market
HIGH RETURN High importance, easier to achieve	Bring stakeholders together across the supply chain	Improve alignment from production through to end use
	Explore pump-priming funding and incentives	Help stimulate early investment and activity
	Address processing and storage capacity	Ensure increased production has viable infrastructure
	Build consumer familiarity with pulses	Strengthen demand for pulse-based foods
	Connect with Good Food Nation ambitions	Align pulse development with wider Scottish priorities

EASIER WINS Lower importance, easier to achieve	Develop a plant-based protein strategy	Create a clearer framework for developing the market
	Connect with healthy and sustainable diet agendas	Strengthen the case for Scottish-grown pulses
	Explore public procurement	Develop an additional route to market
	Engage by-product processors	Identify additional uses and value streams
	Address quality assurance and cross-contamination	Remove practical barriers as markets develop

The consensus was that **no single intervention** will unlock the market, **progress will depend on action** at **several points** across the supply chain.

Where next?

The discussion showed there is real appetite for developing a stronger market for Scottish-grown pulses, as well as a clear understanding of the challenges that need to be overcome.

The next step is to turn that shared ambition into action.

That means continuing to bring together farmers, researchers and the wider supply chain, while exploring where practical interventions could begin to build confidence in both supply and demand.

The priorities identified through the workshop provide a starting point for further collaboration between BOFIN, SAOS and other organisations across the sector - from developing stronger routes to market and supporting farmer-led activity, to engaging policymakers and exploring opportunities across food, feed and public procurement

The ambition is not simply to grow more pulses, but to create the conditions for a Scottish pulse supply chain that is commercially viable for farmers, attractive to buyers and capable of delivering wider benefits for food, farming and the environment.