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## Winter linseed trials

# Survival of the fittest

**Trials suggest that when managed correctly, winter linseed has the potential to thrive even in Scotland’s challenging climate, achieving some of the highest trial yields in Europe. CPM reviews the findings.**

*By Janine Adamson*

**Even as growers struggle to make the financials for oilseed rape stack up, alternative break crops have a lot to prove when it comes to changing mindsets. And in the case of winter linseed, a challenge has always been proving its winter hardiness, says Premium Crops’ Nigel Padbury.**

As a result, the company has been working with Scottish Agronomy to deliver seven years of trials which aim to debunk myths associated with the crop and its ability to survive the winter. “Historically, winter linseed has been perceived as too delicate to overcome the challenging Scottish climate, with doubts even among breeders as to whether it could cope with the harsh weather.

“With a drive to find alternative break crop options, Premium Crops commissioned a series of trials with a stringent ‘hardiness’ screen in place to

identify viable varieties. During the years, persistence has paid off, demonstrating that lines such as Linea Semences’ Alpaga can perform,” says Nigel.

“Now, today’s trials use the latest Linea Semences variety, Attila, which has in fact thrived in the Scottish climate, achieving the highest yields across all of our winter linseed trials.”

### Cinderella crop

However, it hasn’t always been plain sailing and as a result, Scottish Agronomy’s Adam Christie says he wasn’t full of confidence when the trials began seven years ago. “In some ways, winter linseed is a Cinderella crop – back in the mid-90s when we discovered we could grow it if conditions permitted, there wasn’t the required investment from breeders so yields would be a rather modest 1t/ha. There’s also a common perception that harvest is challenging to say the least.

“We were approached by Premium Crops to run the trials at Coaltown of Balgonie as a means of exposing varieties to the extreme. Of course in the first instance, this meant going back to the basics of crop management to understand if we could make linseed a compelling option,” he explains.

Adam says during the first years of the trials, the importance of drilling date soon became apparent. “In Scotland, this is around the end of August through to early September. Equally, you can’t underestimate the importance of herbicide use because linseed has an open canopy in the autumn therefore

isn’t competitive with weeds.

“Gaining the EAMU for metazachlor at pre-emergence has helped in this respect because herbicide options are especially limited in minor crops,” he adds.

By year three, the team was starting to note some success and agronomic guidelines were being formed. This included finding an alternative desiccation solution following the loss of diquat, which was solved by adjusting the management of glyphosate.

“Despite the challenges, we’ve raised yields to 3.2t/ha, which makes our winter linseed trials some of the highest yielding in Europe. We believe this means we’ve reached a point where linseed could now be a viable option for certain growers across the UK,” says Adam.



*Premium Crops’ Nigel Padbury says the company commissioned a series of linseed trials with a stringent ‘hardiness’ screen in place.*



*The conditions conventionally experienced in Scotland are becoming prevalent UK-wide, as demonstrated by this past season, says Scottish Agronomy's Adam Christie.*

Additionally, there's consistency in the trial results, with yields having exceeded 3t/ha for three years running. But what is it about Scotland that means it can produce impressive yields for both winter linseed and OSR alike? According to research, it's all down to the cooler climate delaying flowering until daylength is longer.

Then once flowering has completed, pod development takes place which also coincides with longer days thus providing higher yields.

"This does mean of course, that OSR remains a viable crop in Scotland, with some growers achieving upwards of 5t/ha," suggests Adam. "But for others averaging 3.5t/ha due to the challenges of cabbage stem flea beetle, clubroot or wider disease pressures, linseed should be a viable and less risky option.

"I think it's time to try something new, especially in parts of England. Equally, we recognise that due to climate change, the situation in Scotland may soon change – we're seeing tangible climate shifts all within our lifetime," he adds.

Furthermore, he believes there's much value to be had from Scottish trial data. "The conditions we conventionally experience in Scotland are becoming prevalent UK-wide, you only have to take this past season as an example."

Nigel recognises Scottish OSR growers don't experience the same level of CSFB pressure as their English counterparts, but highlights that the break crop conundrum is a problem shared by all. "There are simply few options out there so winter linseed is an opportunity, particularly when OSR is yielding below the Scottish five-year average of 4t/ha.

## Piqued interest

Seeing the trials at Scottish Agronomy this year has been enough to convince independent agronomist Hamish Coutts of the benefits of winter linseed, he says.

Hamish, an Association of Independent Crop Consultants (AICC) member, recalls the negativity surrounding spring linseed in the mid-90s and its subsequent fall by the wayside. "Now, varieties have improved considerably plus Scottish winters don't seem to be as severe, so it's become viable," he says.

"The benefits of winter linseed had already piqued my interest, but the trials really caught my attention – I was blown away by the breadth of varieties now available."

Benefits-wise, Hamish believes there are two main points to consider – winter linseed offers an alternative break crop, and, it requires relatively low inputs.

"You can't deny that conventional break crops such as potatoes or carrots and their associated cultivations, are damaging soils. As we progress towards more sustainable approaches, we'll have to be more conscious about our cropping choices.

"In a similar vein, winter linseed



*Hamish Coutts says the benefits of winter linseed had already piqued his interest, but the Scottish Agronomy trials really caught his attention.*

requires lower inputs than other crops which is beneficial from not only a cost of production perspective, but is also better for the environment," he explains.

Although winter linseed's profile is currently quite low, Hamish says he'll be introducing the crop to his customers, who span across East Perthshire and Northeast Fife. "I hope more people take an interest, it certainly deserves more buy-in," he concludes.

## Sowing flexibility

"There are also wider benefits of the crop – winter linseed isn't susceptible to CSFB at all and the window for sowing can be much wider, depending on location and conditions. Compared directly with OSR, winter linseed has half the nitrogen requirements yet has a similar harvest date, so doesn't impact the wider rotation," he explains.

With evidence growing in linseed's favour, does Nigel anticipate any bumps in the road to success? "Virtually all UK linseed goes into the animal feed market due to its omega-3 levels, and as such, we can't grow enough to meet demand.

"But as with any controlled market, it's easy to flood it so it's important to carefully manage supply and demand," he says. "Randomised growing won't achieve that – growers have to seek a contract and be assured their crop has a home. There's also evidence that pricing is better for contract crops compared with spot trading."

At the time of publication (August 2024) winter linseed was trading at around £460/t. Furthermore, Premium Crops has established contract value options with either a minimum price of

£450/t, or, a variable price linked to the OSR market. Nigel says this establishes a fair and predictable income for the grower while allowing planning of future crop seasons with surety of sale price.

However, on balance, Adam believes it'll likely take time for the benefits of winter linseed to truly catch on. "I think it'll be a slow burner – the next stage will be identifying the exact varieties and maximising their output.

"Importantly, it adds another tool to the armoury and is potentially a good news story for the industry. In the meantime, the trials we're running in Scotland are collating a catalogue of research which will be invaluable in the future," he suggests.

Finally, have the trials helped Adam to quash preconceptions around harvesting linseed? "On the whole, during the seven years of trials, we've managed to harvest the linseed okay. Conditions have to be sunny and breezy; being fully ripe is key to avoid blockages.

"If harvest continues as it has, this may prove a challenge this year, but does that make it more risky than OSR for some growers? Understanding the nuances of harvest is critical for any minor crop," he concludes. ■