

“A little more yield makes a lot of difference.”

# Agronomy clues to bask in the blues

## Technical Linseed Challenge

While linseed tends to divide opinion, with growers either loving or hating the crop, there's a way to grow it that will not only bring a good return, but could bring you a top prize. *CPM* investigates.

By *Melanie Jenkins*

**Establishing and growing linseed shouldn't be difficult; like most things, it just requires attention to detail to establish and harvest well. It offers an opportunity to widen rotations without bringing pest or disease pressures, as well as providing a buy-back source of income. On top of this, as it's suited to most soil types, it's not restricted to being grown in certain areas. So where should prospective growers start?**

There are both winter and spring varieties of linseed, so choose one that fits best with your requirements — perhaps the early harvest of winter linseed or blackgrass control in spring linseed. There are also both yellow and brown linseed types, but seed colour is less important than oil quality when growing for a specific

end market. “Most UK linseed goes into animal and human consumption markets, rather than the crush market,” says Nigel Padbury at Premium Crops.

Brown seeded spring varieties include easy-cut Marquise, Empress and Altess, which are all standard contract varieties. “These are easy-cut because of the reduced fibre content in the stem,” explains Nigel.

### Human consumption

Yellow seeded varieties — the principle one of which is Scorpion — can go for both human consumption and crushing. High Omega 3 varieties like Nulin — also known as VT50 — are used for animal feed and offer a premium over standard contracts.

Winter linseed has a greater yield potential than spring, at around 2.7-2.8t/ha, and doesn't suffer from cabbage stem flea beetle that's such a problem for oilseed rape. Alpaga, a brown linseed, is the main winter variety and the new brown variety, Volga, looks promising, he adds.

Premium Crops runs its own seed rate trials and over a four-year period, a sowing rate of 800 seeds/m<sup>2</sup> has consistently produced the best results for spring varieties. “Spring is a more unpredictable season and the slightly higher plant numbers produce more

consistent results,” says Nigel.

Winter sowing rates are lower — at around 450 seeds/m<sup>2</sup>. Plants have a more prostrate growth habit and branching, and therefore have the power to compensate for establishment gaps and pigeon damage.

With linseed, it's important to drill when conditions are right, explains Hannah Foxall at Premium Crops. “Cultivations and drilling systems are flexible, but you'll want a fine moist seedbed so there's good seed to soil contact.” Row widths are similar to ▶



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*It's important to drill when conditions are right, says Hannah Foxall.*

► cereals, but linseed is more sensitive to drilling depth — ideally this should be 2-3cm as it may encounter problems if sown too deep.

Drilling dates are flexible and in the south of England can be into Oct for winter varieties, while spring linseed should be planted in March or April once soil temperature is above 5°C.

Like other crops, both winter and spring linseed will want a comprehensive chemical control programme. "Pre-emergence herbicides are very important and include Callisto (mesotrione) for broadleaf weeds and Avadex (trilalate) which has very good blackgrass control on both winter and spring crops," explains Hannah. Post-emergence herbicides include Centurion Max



*Rob Burden won't drill or harvest until conditions are right.*

## Take the Great Linseed Challenge

As part of a drive to support and encourage linseed growers, Premium Crops and CPM have teamed up in a quest to find the UK's best growers and agronomists of this highly under-rated crop. "Linseed is often regarded as a low yield crop, so to showcase its potential we're hosting a competition," explains Hannah.

Growers with at least 8ha for harvest 2018 can enter, while agronomists can enter the agronomy competition. "We're looking forward to seeing how growers push the boundaries to get this crop to perform — we could actually set a world record."

There are three categories:

- Best net margin per hectare – Prize: A Mavic Agri Pro drone package
- Best overall yield – Prize: A holiday for two to northern France
- Best innovation in linseed agronomy – Prize: 2 x £250 voucher for an Artis training course.

Growers of both winter and spring linseed are eligible to enter. You can be a long-time grower of the crop or a complete novice. Any



variety under any agronomic regime can be grown, as long as it's legal.

A panel of judges will make final assessments, which may involve an on-farm visit. Growers wishing to apply can do so by registering their interest the Premium Crops website before May 2018.

Further details can be found at: [www.premiumcrops.com](http://www.premiumcrops.com).

(clethodim) and Crawler (carbetamide) for use in winter on grassweeds, while products like Maya (bromoxynil), Eagle (amidosulfuron), Basagran (bentazone) and Jubilee SX (metsulfuron-methyl) will target broadleaf weeds.

Nutrition is clearly an important area for yield, with a two-split programme. Winter varieties need a spring application and spring varieties one at planting. Both will then want a second application from the green bud stage to encourage yield, says

## Patience pays for Dorset grower

Rob Burden started growing linseed in 2008 at Chilbridge Farm, Dorset, and usually has around 40-45ha, although this year he's growing 26ha of Empress spring linseed. "It's just a case of how it fits into the rotation," he says. This includes OSR, wheat, spring linseed and spring barley.

Before drilling, Rob applies FYM and then ploughs the fields, following with a further application of pig slurry, supplying 50kgN/ha. He then cultivates and rolls them to ensure a fine firm seedbed. Drilling and another pass with the rolls is done when the soil is warm and hopefully moist enough for the seed to germinate as quickly and evenly as possible. "Seedbeds are vital and I won't drill until the conditions are right to allow the crop to get up and go."

Rob also changed his drill to a Lemken disc drill for greater depth and accuracy, and has found this has helped. "The first time I grew linseed I drilled at 50kg/ha but the crop was a bit too thick and went flat, so I dropped down

to 45kg/ha. But I've since gone back up to 50kg/ha due to the variety."

In the past he has used herbicides like Checkker (amidosulfuron+ iodosulfuron-methyl), Eagle or Maya but this year is planning to use a pre-emergence product as broadleaf weeds are becoming more of a problem. This'll be followed by Falcon (propaquizafop) for wild oats and volunteers. An insecticide is only used if necessary.

Rob applies a further 30kgN/ha at the start of flowering followed by tebuconazole. "Treat it as a simple crop to grow," he advises.

Desiccation timing needs to be right and Rob gets an email alert about this. He usually uses a 360g/l formulation of glyphosate and ammonium sulphate. Moisture must be below 9%, but Rob prefers it at 7%, so he won't start cutting before 1.30pm and only combines when humidity is low and it's preferably a sunny windy day. "Patience is a virtue when harvesting."

Hannah. “The total N needed is at most 125kg/ha, with the first split at 0-50kgN/ha and the remainder applied later on as linseed won’t store it.” It’s also worth considering micronutrients.”

While spring linseed is unlikely to lodge, winter linseed will take off if its growth isn’t controlled, she warns. “Winter linseed may need a PGR application before Christmas and in March needs a



*Spring linseed should be planted in March or April once soil temperature is above 5°C, and good weed control is important.*

two-spray PGR/fungicide programme, depending on height. Spring linseed requires a single fungicide application at around flowering to maintain green leaf area.”

Though linseed suffers from few diseases, there are some to be mindful of. The main ones are:

- Kabatiella – an autumn disease similar to phoma
- Septoria – known as pasmo, it’s a spring disease that thrives in warm, wet conditions
- Botrytis – from late spring onwards, this affects the bolls and leaves and can damage yield.

## Bit of a problem

Flax flea beetle can be a bit of a problem for spring linseed until the crop is around 5cm tall, says Hannah. “Winter linseed isn’t affected by flea beetle, but can be susceptible to pigeons in early spring.”

Harvesting linseed is the area that causes most concern for growers. “If done right, there should be no issues,” says Hannah. “Diquat or glyphosate can be used to desiccate. In our opinion, diquat is the better option as it’s easier to get the timings correct. With glyphosate, green leaf area is required for uptake and this



*High Omega 3 varieties like Nulin offer a premium over standard contracts.*

can be tricky to judge in an uneven crop.”

The crop can then be combined when the seed capsule and the top half of the stem goes brown and seed moisture is between 7-11%. “This should take 7-10 days — if you wait too long, the fibres start to break down and cause harvesting problems.” It’s also recommended that new knives and fingers are used.

Gross margins for both winter and spring linseed are around £570-£580/ha. “Maximising margins starts with choosing the right variety,” says Hannah. “Know your farm and what issues are likely to affect you, and then plan ahead. Timing is important. If you wait until weeds are too big, you may have to do a second pass — herbicides are a significant cost for linseed.”

At harvest, combining too early can cause the bolls to go through the combine as admixture, leading to a reduction in price. “Keep admixture and moisture to a minimum, as your payment depends on this.” ■



*Flax flea beetle can be a problem for spring linseed until the crop is around 5cm tall, but doesn’t affect winter crops.*

## Pushing for yield in Norfolk

Tim Payne farms 120ha for Robert Payne Partners in Norfolk and is growing winter linseed for the second year. His rotation includes wheat, OSR, winter linseed, sugar beet and spring barley. Tim currently has around 18ha of Alpaga in the ground but next year is looking to change to a new variety with more autumn vigour.

“The Alpaga was later drilled than I’d like — around 27-28 Sep — and the weather has been a struggle ever since.”

The land was subsoiled, cultivated and pressed. “It seems mixing the previous crop residue has locked up a lot of N and the Alpaga didn’t get away,” says Tim. “The plan for this year’s crop is to subsoil with low disturbance Tillso legs then drill into that to keep the residue on top.”

He drilled the Alpaga with a Väderstad Rapid using variable seed rates, aiming for a plant population of 400 plants/m<sup>2</sup>. The crop had TSP and MOP before sowing, with pre-emergence Callisto followed by Centurion Max in late Oct and a Difcor fungicide (difenoconazole) in early Nov, as well as trace elements. It then had a blackgrass spray in late Oct.

Weather and pigeons have been putting the crop under some pressure but it’s compensated pretty well, explains Tim. “I think in a normal year it would have been fine.”

The Alpaga had an application of N on 7 Mar at a variable rate that averaged 45kgN/ha and then a fungicide spray and trace elements on 25 Mar. “There’s been no need for a PGR this year as the crop is at about 5cm, but this time last year it was 15cm.”

Tim has found harvesting linseed fine. “Have a sharp knife that’s adjusted correctly on the combine, with no vertical play. Once we adjusted this we had no issues and baled the straw after.” Last year he desiccated mid-Jul using Reglone (diquat) and harvested around 27-28 Jul. Yields were around 2.25t/ha but Tim plans on improving on this. “The crop wants to be doing 2.5t/ha to make it more attractive — anything above this would be good.”

He advises other growers to treat linseed as a proper crop. “It’s about attention to detail and following advice: a little more yield makes a lot of difference.”