

The crazy Englishman's olive gamble



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DAVID HOYLES

Described by Italian producers as 'the crazy Englishman', a Lincolnshire grower is diversifying into producing olives – many miles further north than anyone else. *CPM* visits David Hoyles to hear his story.

By Mike Abram

Lincolnshire arable farmer, David Hoyles, has never been afraid to push boundaries on his farm, whether that's through the early adoption of technology, or, growing niche crops like mustard. But, those endeavours are nothing compared with his latest venture – planting 18,000 olive trees across 10ha with the ambitious goal of commercial UK olive oil production.

Sitting alongside his more traditional potato, sugar beet, wheat, vining peas and mustard production, David admits it's been a leap into the unknown. "The Italians call me 'the crazy Englishman'; no one knows whether it'll work because it's not been done in the UK before."

His inspiration came during a visit to

Italy while looking at veg production, where he found high-intensity, high-production olive trees were being grown on a similar soil type to his own. "The farmers told me producers were moving to good land – growing trees close together, with the old system of widely dispersed trees being phased out."

GOING BIG

The initial plan was to plant a few hundred trees, but post-Brexit costs soared for phytosanitary and plant health inspections, making it cost-prohibitive to be just a hobby-scale operation, recalls David.

Instead, with inspection fees on a consignment basis, it made more sense



International inspiration

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Photo: Mike Abram.



Mitigating risks

Varieties have been chosen for slightly later flowering and early maturing characteristics to mitigate two key climate risks. Photo: Mike Abram.

- to go big, he says, but that required serious research into the idea. As such, during 2022 and 2023, he spent time with growers, agronomists, researchers and processors in Europe, as well as conducting online research, before deciding on varieties that he hopes will survive and yield in UK conditions.

"We're pushing boundaries, but with climate change we're getting more sustained warmer periods. Also, while researching, I found the main producers, the cooperatives and privately owned labels who are investing in hundreds of hectares, are all planting further north.

"Their homelands of central Spain and central Italy are becoming too unreliable, with two years where temperatures have been above 40°C on regular occasions, stressing plants and reducing yields by 30-50%."

At David's farm, four main varieties are being grown in blocks of 20 rows. This is in addition to six trial varieties in single rows in a high-density design, with the tree lines 4m apart in 1m beds separated by 3m of flower-rich grass. Within the rows, David has experimented with different spacings from one to 1.4m, to determine the optimal spacing for UK conditions.

Varieties have been chosen for their slightly later flowering and early maturing characteristics to mitigate two key climate risks – late frosts in the spring and maturing too late to fully ripen – rather than out and out yield.

"The main blocks are the ones



Planting setup

At David Hoyles's farm, four main olive varieties are being grown in blocks of 20 rows. This is in addition to six trial varieties in single rows in a high-density design.

Photo: Mike Abram.

I've put my money on, while the six trial varieties I've been more uncertain about," highlights David.

For the main varieties, trees were planted north-south to maximise light exposure into 1m-wide 20cm depth beds created using a farm-made tine cultivator with ridge-formers and a press wheel to ridge roll.

Planting was GPS-driven using an imported olive tree planter attached to a tractor in a process that took five days to complete. "It functions like a veg planter with a carousel on the top where you drop the trees, which moves round to plant the trees with a press wheel squeezing them in."

Stakes to protect the young saplings from the prevailing southwest wind were then knocked in by hand, with the trees taped to the stake.

David says environmental conditions have played a part in survival rates, with the variety closest to woodland that borders one edge of the field experiencing higher first winter mortality, likely due to increasing shading prolonging frosts and colder temperatures. He adds that rows further away from the wood progressively showed better survival rates, with any non-surviving trees replaced with another of the same variety and marked for monitoring.

Other differences between varieties are apparent, he suggests, not just in

leaf shape and growth habit, but also in number of flowering sites, fruit shape and development, and uniformity.

Perhaps typically, five of the six trial varieties look promising, while two of the main variety blocks are struggling to some extent in year two. "But, it's only year two – the plants are three years old and next year might be different.

"The varieties respond to the climate in different ways. This year it might be good and next year it might not be, if they flower at a slightly different time and we get an early frost, or they take longer to mature."

Managing the olive grove is far more intensive than he'd originally thought, admits David. "The books and other farmers don't really tell you how involved it is."

This is because typically, he's spending around two hours a day walking through the grove to monitor the trees. Key tasks include removing the growing point once the tree is 80cm tall to eliminate apical dominance and encourage side branching. Then, once there's enough growth, all of the leaves are stripped from the lower 50-60cm to create a clear trunk – essential for future mechanical harvesting.

"Eventually, as we keep pruning, the trees will bush out and look like hedges – around 1.2m wide and 2.4m high. That's the maximum capacity the self-propelled harvester will cope with," he explains.

According to David, pruning is no one-and-done task – last year he went through all 18,000 trees around five or six times. While this year – a better growing season – it's already been three or four times and it's only mid-growing season.

Each row takes around two hours and with 80 rows, it's no small undertaking, he comments. Plus at the same time, he's monitoring for pests and diseases.

David points out that one currently unidentified insect lays its eggs in the growing point, which the larvae eat out causing potentially unwanted branching. This season, he's also finding large privet hawkmoth caterpillars in the grove causing damage.

Having decided to implement a no-insecticide, no-fungicide policy, removing caterpillars by hand as required is the only option. "The grass and wildflower mix was planted mostly to encourage beneficial insects. I'm sure the longer it's insecticide-free, then nature will balance itself out."

Xylella fastidiosa is another concern. A bacterial disease transmitted by insects, this causes wilting and tree death known as olive quick decline syndrome and, there's no cure. "When you import trees they have to be certified as *Xylella*-free," says David. "But I don't think we get it in the UK yet."

Nutrition and water are supplied through an advanced fertigation system which allows David to control irrigation to each of the four main variety blocks separately through a pressure-regulated permanent trickle tape.

Despite the common perception that olives 'grow on red rock in the middle of nowhere' they require a 'remarkable' amount of water at certain times to get the oil quality and quantity desired, he says.

To monitor water uptake and potential deficits, David uses soil moisture probes down to 1m depth. "It's been useful to show us how the trees are growing and the root system developing. We now have water use down to about 40cm; last year it was at only 10-15cm.

"I didn't really believe the data so I dug some trees up and was disappointed with how poor the rooting was last year, but I think it was the weather. This year they've motored."

One challenge is that the 60cm spacing on the drip irrigation tape doesn't quite line up with the tree spacing, comments David. "In a wet year

like last year, it wasn't a problem, but this year's dry conditions have meant some trees have been short of water necessitating some hand irrigation."

An integrated Dosatron system precision applies nutrition through the irrigation tape. Using a combination of his agronomic knowledge and research into what key nutrients the trees require at different growth stages, he varies what's being dosed.

"I have a blueprint from research for what's required during early spring vegetative growth, then flowering, fruit development and for established fruit. But I'm tweaking it because our plant growth is variable.

"If every plant was flowering at the same time it'd be easier, but they're not, so it isn't an exact science. At the moment, some weeks I'm thinking the backward plants require nutrients for root development, and then other weeks it's the forward ones that require nutrients for fruit swelling.

"It's not as precise as I thought it was going to be, but hopefully in a few years, it'll be easier to manage."

MAIDEN HARVEST

Rather excitingly, the first olive harvest could be as soon as this autumn.

And while not every plant has fruit, he's hoping that those that do will ripen to an off-green colour. "It's like pulling a raspberry – there's a little resistance but they do come off."

In the first years, harvesting will be by hand until production is significant enough to justify a harvester. "I'm hoping I can rent a self-propelled harvester used for blackcurrants in the summer as it's the same core machine and you just buy the olive harvesting kit to change the sieves and fingers," he explains.

In theory, yields should double each year until the trees reach maturity after around 10 years, but David acknowledges with the inherent risks and uncertainties with olive growing in the

UK, harvest volumes are an unknown.

Ultimately, the plan is to process the olives to make extra virgin grade olive oil – the key being to minimise impurities and the time from harvesting to processing, he says.

"To give the best chance of making the grade, traditionally, growers would harvest olives in the morning.



Product range

Oil will be sold in 250 or 500ml bottles along with associated merchandise such as honey, olive leaf tea, clothing, art cards and imported olive wood products. Photo: Mike Abram.

In the afternoon sun, they then use their covered area to grind up the olives to produce a pumice before spinning it out to get the oil.

"That process hasn't really changed – even the big producers are harvesting and processing within a few hours, so my plan is to do much the same. I'm going to buy a machine that chops up the olive and stone, centrifuges it and spins out wastewater and oil. You filter the oil and store in airtight stainless-steel tanks before being bottled.

"Initially I'm going for a machine that can process either 50 or 100kg/hr. When hopefully there are more olives to harvest, I'll buy a second and third machine, or a buy a small version of the kit big producers use which is more of a production line," he explains.

That separates out the processing into different tasks – washing, de-stoning, mashing, centrifuging and filtering. "At which point we'll require a new building."

Each variety will be processed individually, he hopes, so he can sell by named variety and highlight their distinct attributes, health benefits and flavours. Product will primarily be in 250 or 500ml bottles labelled with The English Olive Company brand he's already set up to sell associated merchandise, such as honey, olive leaf tea, clothing, art cards and imported olive wood products.

"We plan to sell our oil online and through local shops and restaurants initially. If we have hundreds of litres to sell, which would be a nice problem, then that might change," he concludes. ●

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