

Maize growing producers from across the UK share their experiences

Words of maize wisdom

We spoke to some experienced maize growers, based throughout the UK, to find out how they select the best variety to grow on their unit. Read on to see if you can pick up a few pointers that could help you to navigate your way through the maize-growing maze.

text Rachael Porter

Looking for yield and quality

For the Symms, of Rookery Farm near Tarporley in Cheshire, increases in hectares, cows, slurry storage and milking capacity are all part of the investment that is creating the opportunity for son Stuart and his family to earn a living alongside his parents David and Rosemary. Underpinning the expansion of the 180-cow herd to 220 head (by autumn 2012), is a focus on forage production, with increased maize yields an important part of the strategy. With the structure of the enlarged business taking shape, the aim is to maintain a healthy Holstein herd, with emphasis on longevity rather than pushing for the highest yields, and with

as much milk as possible coming from forage. To this end, the farm grew more maize in 2011 than ever before and – in a year when maize crops in the area were variable at best – achieved an estimated yield of between 42 and 45 tonnes/acre. “We grew 20 hectares of Troizi in 2011, drilled at the end of April and harvested before the end of October,” adds Stuart. “We follow the recommendations of BCW, who supply our maize seed, which included the application of nitrogen in the seedbed and pre- and post-emergence herbicides. It’s fair to say that this combination of variety choice and best practice delivered a bumper crop when many others in

Name:	The Symms family
Location:	Cheshire
Herd size:	180
Maize area:	20ha
Variety grown:	Troizi

the area struggled. Our harvesting contractor certainly reckoned ours was the best crop he’d seen that season,” he adds.

The family plans to grow a similar area of maize in 2012 and are definitely sticking with the same variety. “It really was an exceptional crop – like no maize crop that we’ve ever grown before,” says David, who would recommend the variety to other producers with a similar soil and aspect.

Forage maize contributes 50% of the winter ration and is also buffer fed through the summer to provide a consistent supplement to grazed grass. This is particularly important as the Symms are incentivised through their milk contract to produce as much milk protein as possible.

Maize is now followed by Italian ryegrass, drilled into the stubble, to provide out-wintering for the replacement heifers. This is proving to be a very successful policy, keeping the heifers significantly healthier and helping towards a consistency of diet that ensures good conception rates.

With maize ground being rotated around the farm, there is ample opportunity to establish new grass and clover leys, which are also key to producing as much milk as possible from forage. Aber High Sugar Grasses feature strongly in the mixtures, with hybrids grown with red clover for silage, and diploid perennials with white clover more commonly used for grazing.

David (left) and Stuart Symms (right) and BCW's David Harris, with Troizi in the clamp



Managing maize after maize

Growing continuous maize on relatively heavy land presents its challenges, but with 270 milkers reliant on the crop for half their forage ration Cheshire-based producer David Brown needs to ensure reliability in his cropping. Sub-soiling before ploughing – whenever

necessary – is a key action, according to David. He grew 45ha of the high-feed-value variety Utopia in 2011 after it out-yielded other varieties at New Dairy Farm, Elton, in 2010.

David balances applications of farm yard manure with potash in the seedbed and

Name:	David Brown
Location:	Cheshire
Herd size:	270
Maize area:	45ha
Variety grown:	Utopia

nitrogen applied post emergence to the growing crop as well as ‘down the spout’.

Typically one post emergence herbicide application is sufficient.

The overall strategy continues to work, with the 2011 crop ultimately performing very well.

Others in the area succumbed to the combination of a dry spring followed by a lack of warmth and sunshine in the summer, according to David.

“This was the 15th consecutive year of maize on this ground,” he adds.

The target is to grow a crop that at between 30 and 32% dry matter is not, according to David, too dry.

This compacts well in the clamp and will keep for buffer feeding the herd, which is currently averaging 9,800 litres.

Harvesting high-feed-value maize variety Utopia



Maize did well in a poor growing year

An extremely experienced maize grower with 20 years of experience, Clwyd Williams selects the varieties that he grows on his unit, based on dry matter yield, starch and earliness.

In 2011 he grew 16 hectares of maize, made up of between four or five different varieties, of which five hectares were Acumen – a new early maturing variety from Limagrain and supplied by Wynnstay.

“It was the first year that I grew it and it was a difficult maize growing year, but it did really well – I was very impressed. It had higher yields than the rest and a better cob on it – which is where the starch comes from – and that’s important when you’ve 160 cows to feed,” he says. Clwyd says that maize grows fairly well on his land, although the drought at the start of the growing season was a problem: “And it would have certainly held back

Name:	Clwyd Williams
Location:	Ruthin in Denbighshire
Maize area:	16ha
Varieties grown:	Acumen

yields a little bit. I can’t wait to see how it does this year in what I’m hoping will be slightly easier growing conditions.”

Maize is typically drilled at the beginning of May on sandy grade 2 and 3 land, but last year good weather enabled them to drill in mid-April. “It emerged quite quickly and got off to a good start, but then we were without rain for several weeks and it just didn’t move.”

That said, once the rain came, the crop took off and he still managed to harvest on October 14.

The newly released 2012 NIAB Descriptive List for forage maize includes three new high yielding LG varieties from the Limagrain UK breeding programme: Vivacity, Garland and Acumen. All are early maturing and deliver high yields of starch and/or energy.

This year the NIAB List does not classify varieties by maturity. Growers will only have dry matter percentage as a guide to compare the earliness of varieties. So, to give growers an indication of the earliness of the new LG varieties, the company is supplying its customers with a guide to maturity class.

Clwyd Williams is pleased with the performance of maize variety Acumen on his unit



Plastic plans and conventional success

Maize is a vital forage crop for Garlieston-based grower Peter Simpson, providing sufficient home-grown feed for his 490-cow herd. He's in a marginal area and, after 10 years of growing the crop, not only is he pushing up his maize hectares, but he's also going to grow some under plastic for the first time.

Maize 'stacks up' for Peter Simpson



"I did try to grow maize in the late 1990s, but it just didn't work out. I tried it for two years, but the varieties weren't quite so well developed.

"Then I gave it another go in 2003 and I haven't looked back since." For him, growing maize is all about maximising the amount of home-grown feed at the unit. "Maize allows me to do that – I can double crop as my conventionally grown maize is sown after a cut of grass silage is taken in early May," he explains.

This year that maize crop will be 40 hectares of Destiny – an early maturing variety that he's grown before and is extremely happy with.

And a further 33 hectares of Acumen and Award will be sown at the beginning of April under plastic.

"If we have a good growing year, I'll be looking to harvest that crop early – hopefully in mid September – and then I can sow some winter wheat behind it," says Peter.

He adds that it will cost around £222/

Name:	Peter Simpson
Location:	Dumfries & Galloway
Maize area:	73ha
Varieties grown:	Destiny, Acumen and Award

ha to sow under plastic and he's looking for quality from his maize and good dry matter.

"We do struggle a little up here with grass silage dry matter levels. So I want more than 30% dry matter from my maize and also a starch yield of more than 30%."

Peter's also fairly confident about this year's crop. "2011 was by far the worst growing year we've had since we started with maize. Figures from SAC Crichton Royal showed that in July, August and September we had half the hours of sunlight that are seen in a typical year.

"Yet we still managed to produce a good quality crop. Yes, yield was down considerably. But the cost per tonne of dry matter was still viable. The figures do stack up for maize – even in marginal areas."

Earliness – without loss of yield

Andrew Norris and his family have been growing maize on their 350-cow unit for the past six years and key for him is earliness – but without loss of yield. Each year Andrew selects two or three varieties: "I'm always looking for a variety to better the best one that I grew in the previous year, so I run my own little trial, for want of a better description," he says.

Karimbo took the top spot for yield and quality on the unit last year, outperforming Kentaurus, which is the biggest selling ultra early (the number-

Maize silage should have 'bulk and quality'



three variety in the UK in terms of sales), and Kougar. He grew 26 hectares of Karimbo, 10 hectares of Kentaurus and four hectares of Kougar.

"And I'll be sticking with Karimbo this year until I can find something to match it or better it," he says.

"I'm looking for quality and bulk – I think most growers are. It's a happy medium. It has to have energy to justify the cost of carting it. If not, it works out cheaper to buy in concentrate. So we're looking for a good balance."

He says that for a poor growing year, he saw a good crop: "Yields were down about 10%, but it could have been a lot worse."

He planted in April in what he describes as good conditions. "The seed was 100mm down in the soil, but in just two days it had emerged and was 25mm above the soil. It grew another 50mm, and then the weather turned cold and it didn't move for five weeks. But it all came good eventually."

Pre- and post-emergence herbicides are applied, but that's about all. Andrew also harvests when the plant in completely dried out and dead. "The soils are good here and we can harvest

Name:	Andrew Norris
Location:	Lancaster
Maize area:	40ha
Varieties grown:	Karimbo, Kougar and Kentaurus

as late as November. We harvested in December in 2010 with no problems at all," he adds.

Mid-maturity class is what he looks for. "We don't have the growing season up here that they have in the south of France, so that's as late as we'll go. We did grow under plastic once, but it was too expensive and didn't really give us much in terms of growth or yield benefit."

The family takes its maize growing advice from Agrovista's Maurice Spence – he's an invaluable asset when trying to grow maize in a marginal area.

"It's an important crop and makes up a fair proportion of the herd's forage ration. We are quite reliant on it, so getting some expert advice is essential."

That said, he's growing Karimbo again, no matter what, and also some Kentaurus. "As well as a new variety, KWS UK's Ramirez, under Maurice's recommendation. So we'll see how we go with that."