

The lime that saves time



“It’s proven successful because it works quickly rather than waiting years for pH to correct.”

CHRIS PEAKE

A co-product of the sugar beet manufacturing process, LimeX is steadily gaining a following across the country thanks to its unique benefits, notably its fast, neutralising action. CPM visits the sugar beet factory at Wissington, to learn more about the manufacturing process.

By Janine Adamson

Not all agricultural liming products are built equal, and in the case of LimeX, it’s how it’s manufactured specifically that enables it to offer its unique qualities, and therefore make a difference quickly on-farm.

But what makes the product so effective at correcting soil pH, and why has the manufacturing process been so pivotal in its success so far? Well, it all starts with a crop of homegrown sugar beet...

A division of British Sugar, LimeX is manufactured at British Sugar’s factories at Newark, Bury St Edmunds, Wissington near Kings Lynn, and Cantley near Norwich, and is a resulting co-product of sugar beet processing, explains LimeX business manager, Glenn Carlisle.

The production process begins once a sugar beet intake has been

weighed, sampled and unloaded into the factory. This is then de-stoned, washed and cleaned, before being sliced into thin chips known as cossettes, continues Glenn.

“These cossettes are then diffused with hot water to extract the sugar, and purified. It’s during the purification process when we remove the non-sugar from the ‘raw juice’ that the LimeX story really begins.”

CHEMICAL REACTION

For this, milk of lime and CO₂ are produced and combined with the raw juice creating a chemical reaction where calcium carbonate crystals and non-sugars are settled out as solids. To complete the process, the solids are pressed using hydraulic force and compressed air to extract water

which leaves a dry product – LimeX.

Critically, being a chemical-driven process means the end result is much finer than what growers may associate with conventional agricultural lime, points out Glenn. “This is a key differentiator of LimeX. While competitors are mostly mined rock products which can be coarse and gritty, LimeX is just 0.002-0.015mm in diameter.



Finer consistency

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Efficient gains

Agrii's Chris Peake started working with LimeX in spring 2025 as a way to help his customers to stay competitive.

"For the grower, this means a product which can act much quicker in the soil – starting to correct pH in just 4-6 weeks. No other agricultural limes are as fine in particle or fast in action; think of it like comparing the speed of dissolving granular sugar versus a sugar cube in a cup of tea."

This means once applied, the calcium in the lime is more available too, he raises. "This can help to bolster the health of the growing crop to ward off soil-borne diseases such as



Added benefits

Each tonne of LimeX contains 9kg of phosphate, 8kg of magnesium and 7kg of sulphur.

clubroot and improve soil structure."

To provide an idea of scale, around 8M tonnes of sugar beet are processed annually by British Sugar, across four processing sites. The output of this is not only 1.2M tonnes of sugar, but also up to 300,000t of LimeX, as well as a host of other co-products

such as topsoil, stones, animal feed, bioethanol and renewable energy.

Of course, with the processing of sugar beet comes impurities. However, what doesn't belong in sugar can in fact be used in LimeX, highlights Glenn. "As such, each tonne of LimeX contains 9kg of phosphate, 8kg of magnesium and

A grower's perspective

Speedy reactivity helps LimeX to stand out and become a go-to product

Having taken on the role of farm manager at Whitbread Farms in Bedfordshire around nine years ago, Mike Purnell says one of his first tasks was to rectify the outcomes of a 'lime holiday'.

"To address the pH being out of kilter we started to use crushed lime, but LimeX was quickly recommended to me by a third party. We've been using it ever since."

He adds that he's found the product to be cost-effective across the 1000ha business, which consists of arable cropping and a native rare breed suckler herd. Rotations-wise, a third of the arable area is down to spring cropping with winter cover crops, while the overall management approach is to adopt regenerative principles.

"Because LimeX has a fine particle

size and is therefore fast-acting, we've found it to be especially reactive, which makes a big difference," comments Mike. "Generally, we're applying around 3t/ha during a three-year cycle, however the most we've ever applied is 7t/ha during a particularly bad year. While our main driver for using LimeX is pH neutralisation, the added nutrients (P, Mg & S) are also a bonus."

As for application itself, all LimeX at the farm is applied by contractors, who Mike says have encountered no problems during the seven years the product has been used. "You do have to be conscious of application conditions such as wind, but it spreads a decent distance and is clean."

"Also, despite being finer than crushed lime, it doesn't appear to wash through the soil profile any



Endorsement

Whitbread Farms' Mike Purnell has been using LimeX ever since it was recommended to him by a third party.

quicker during wet conditions."

And while the enterprise is a reasonable distance from its nearest sugar beet factory, he points out that they're yet to experience any issues in terms of supply. "Product is always delivered on-time, as required," concludes Mike.

7kg of sulphur. Consequently, a 7.5t/ha application rate of LimeX usually supplies the phosphate requirement of the following cereal crop.

“These ‘free’ added nutrients are another benefit for the grower that’s a consequence of LimeX’s unique manufacturing process,” he says.

A COMPELLING OFFER

According to lime and soil specialist for Agrii, Chris Peake, it hasn’t taken much to convert his growers to LimeX. He says he started working with the product in spring 2025 as a way to help his customers to stay competitive.

“Particularly for large hectareage growers, agricultural lime is starting to increase in cost. What we’ve found is not only is LimeX cost-effective, but growers appreciate its consistency and that it works quickly.”

Chris adds that while he strives to be ‘two crops ahead’ when it comes to lime and maintaining correct pH, he also wants something that breaks down quickly. “Equally, dry or dusty lime is very difficult to spread and can be expensive.

“Because of the benefits of LimeX, we distributed 1000t in the blink of an eye this year. Importantly, it’s not just about its price competitiveness, it’s proven successful because it works quickly rather than waiting for years for pH to correct.

“The added nutrients also help the growing crop, especially sulphur. Every little helps to maximise each pass through a field.”

Although Chris doesn’t believe LimeX will completely replace conventional lime, he believes given the choice, most farmers are quick to make the switch, or start to integrate it into rotations. “We’re certainly pleased with its performance. I can easily see it working side-by-side with traditional liming products.”

Being based in the West Midlands, Chris’ experience also quashes a common misconception, points out Glenn. “Some may believe that LimeX is only available to sugar beet growers or those near to a British Sugar factory. This is incorrect – although the product is stored at and distributed from our factories, it’s available to all, whether that’s mushroom growers in Ireland or vegetable producers in Cornwall.

“While 60% of production does go

“These ‘free’ added nutrients are another benefit for the grower as a consequence of LimeX’s unique manufacturing process.”

to those in the beet growing area, our customer base beyond this is growing steadily, particularly as the benefits of LimeX come to the fore. This is supported by our network of approved hauliers to ensure product is delivered on time,” he says.

To illustrate this further, contractor Zander Hughes of Forth Crop Solutions in Fife was first introduced to LimeX through a new customer, who specifically requested the product. With demand accelerating from the off, he’s now distributing LimeX across his region in Scotland.

“We received 3000t into Fife this spring alone – so far, it’s worked

remarkably well,” he says. “It’s a cost-effective alternative to conventional ground limestone, but you have the added benefits of a formulation which includes key nutrients.”

He’s also been impressed with the speed of delivery – around a week turnaround from order through to being spread on fields. “Product comes in and out as required with us receiving consistent loads on a regular basis. While we have a storage facility we can use, customer demand has meant we’ve not had to use it.”

Glenn is also eager to stress that LimeX can be used on any crop which has a pH requirement. “We’re keen to move away from its association with sugar beet. Yes, sugar beet is involved in the product’s manufacture, but with a year-round supply, LimeX can be applied to cereals, oilseed rape, potatoes, vegetables and grassland.” ●



Swift correction

Once applied, LimeX starts to correct pH in just 4-6 weeks.

Innovation Insight

LimeX is the UK’s leading agricultural liming product for the correction of soil pH, helping to maximise crop yield and profitability.

Although manufactured by British Sugar as a co-product of sugar beet processing, LimeX can be used across a range of arable crops including cereals, oilseeds, brassicas, carrots, potatoes, sugar beet and maize.

As well as its primary goal of correcting soil pH, LimeX also contains four essential nutrients: calcium, phosphate, magnesium and sulphur.

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