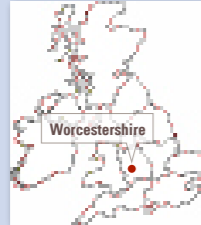




#### The Appleby family (James and Tom)

A change in farming system – to generate more profit – triggered a switch to cross breeding and cows that are better suited to grazing and autumn calving.



Number of cows:	300
Expanding to:	400 by 2013
Average yield:	6,500kg
On-farm processing:	5% of milk output

'Early adopters' share their reasons for switching to cross breeding

## Breeding for profit – not more milk

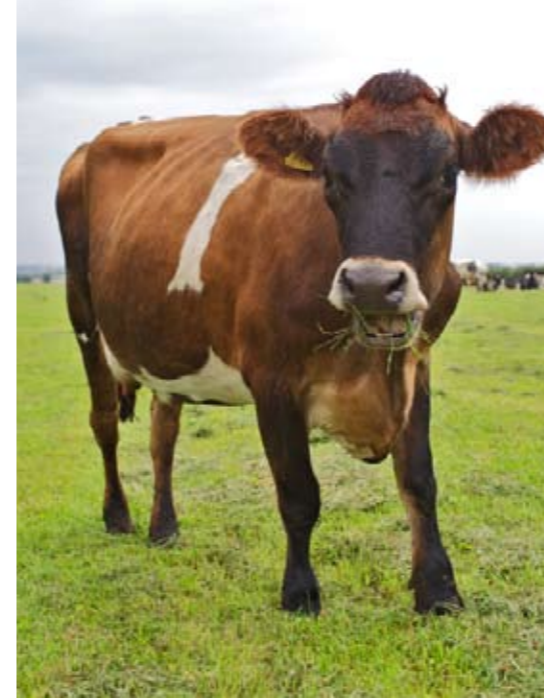
Cross breeding is a key part of a continually developing Worcestershire-based dairy business. It's all about having the right cows to suit the system, according to former pure Holstein breeders, who now run a mixed herd.

text Rachael Porter

Ice-cream processing, an organic system and a ghost – the Appleby family's dairy unit, based at Bretforton House Farm near Evesham in Worcestershire, has it all going on. But it's the cross breeding – using Norwegian Red sires on Holsteins and using Jersey sires for the second cross – that's really causing a stir, according to Tom Appleby. He's the third generation of his family to run the unit and the third generation of

'early adopters' to stamp his mark on the herd. His grandfather Roy milked British Friesians back in the 1950s and he was one of the first producers to import some Canadian Holsteins. "He shared a plane load with another breeder and from then on he took the Holstein route," says Tom. His father, James, was one of the first producers to switch to TMR feeding in the early 1970s. "He and my grandfather

found that they needed to move to a TMR feeding system in order to get enough feed into these large, milky Holsteins that they were breeding. And the response of the cows to the feeding system was phenomenal. Milk yields soared and Dad was smitten." Yields were up around 9,500kg and 10,000kg in the late 1980s and early 1990s, but Tom says that they became disillusioned in the late 1990s.



The 'red' factor: Tom is pleased with his first-cross Holstein x Norwegian Reds

"Dad and my mum Susan decided to take the organic route. They could see that the system wasn't sustainable and decided to add value to the milk, rather than simply producing more and more of it." So they reduced cow numbers to 150, to reduce the farm's stocking rate, and organic conversion finished in 2000. "We continued with Holstein breeding until 2008, when we then started to

### A 'spooky' way to add value

Processing ice-cream on the farm adds some value to the herd's milk. But the enterprise, which uses about 5% of the herd's annual output, is run entirely separately from the main dairy business by Tom's wife Nicola and his mother Susan. "We sell milk to the business at the same price that we get paid by the dairy on our standard organic contract," explains Tom, adding that

the ice-cream business is very busy in the summer. Its turnover for this period is equal to 25% of the entire dairy business' annual turnover. A total of 15 flavours of 'Spot Loggins' ice-cream – the brand is named after a local man whose ghost is said to haunt the site of a filled-in well on the dairy farm – are sold wholesale to local retailers and caterers.

cross breed. It was a natural progression really – part of the overall change to a pasture-based system – but also an important one. The cows have to suit the system and pure Holsteins are simply not compatible with what we're trying to do here," says Tom. That said, he stresses that they will continue to use Holstein and Friesian bloodlines as part of the breeding programme: "If we need to inject a little more milk into our cows or perhaps improve udder conformation, for example."

#### More profit

Back in 2008 the herd was still being milked three times a day and Tom says that they felt that a shift of emphasis from productivity to profitability was needed. "We were being paid a strong price for our milk, but we just weren't seeing much of a profit on that because our feed costs were just so high." So the family called in dairy consultant Tony Evans. "He went through everything, to see how much money we were really making and what our biggest costs were. And then laid it out for us in black and white – or not, as it were. "Both feed and vet bills were high and fertility was poor. So after some research, and visiting herds that have adopted the system we planned to implement, we took the plunge with cross breeding." All Holsteins in the 300-cow herd have been crossed with Norwegian Red and the resulting heifers and cows will be crossed with Jersey sires. "And the plan now is to use Fleckvieh as the third cross and to just use Jersey on heifers." The current herd, which is averaging 6,300kg of milk, comprises 200 Holstein, 30 British Friesian, 25 Jersey crosses and 25 Norwegian Red crosses. So, why Norwegian Red? "There were so

many options, so again we spoke to other breeders to find out what had worked for them," explains Tom. "We had mixed feed back about Jerseys, but they're good on fat and protein and feet too, of course. So we plumped for them as a second cross. And we'd already dabbled with some Norwegian Red semen and were happy with the results, so felt that had to be our first cross. We were also impressed with the sire proving system in Norway, with its emphasis on health and management traits." They're also slightly bigger and give more milk and Tom says that he thinks they're more suited to an autumn calving system. The next step is to move to autumn calving. "We have two tight blocks at the moment – one in the spring and the other in the autumn – and we're gradually moving towards autumn only."

#### Premium price

He says that the farm's climate tends to be very dry in the summer. "That's great in a year like this one, but more typically we run out of grazing in July and August. And our milk buyer is also willing to pay a premium for autumn milk." Tom and his father also plan to push cow numbers up to 400 within the next 12 months. "We're going to fill the feed passage in the existing cow house with cubicles and switch to feeding silage in outdoor troughs and cake through the parlour," explains Tom. His aim is to milk a medium-sized cow that has the genetic potential to produce 7,000kg of milk. "And I think we're on target to achieve that. But the beauty of the system we have now is that it's flexible and it's changing all the time. By the time we get to having to select a breed for the third cross, things may have changed again – and we can adapt accordingly."



Grazing focus: cross breeding is just part of the overall change to a more pasture-based system