

LIVESTOCK - NATIVE BREEDS

Sussex cows have been selected to maximise forage use efficiency, particularly on poorer quality land, and reduce concentrate input at Elbridge Farm, Sturry.

Sussex converts forage into profits

By Aly Balsom

Declining suckler herd numbers has raised the importance of beef production efficiency. With this in mind a Canterbury beef and arable farmer has selected animals to increase forage use efficiency and reduce concentrate input.

Pedigree Sussex beef and arable farmer, James Holdstock, farms 180 cows at Elbridge Farm, Sturry, Kent. The farm comprises 200ha of grazing land, including marshland and gravel-based grassland, grazing is a potential challenge.

On a farm with such low quality pasture and huge variability in soil type, the Sussex is a good choice, says Mr. Holdstock. "The Sussex is an extremely good forage converter – it seems to live on little."

Two years ago, escalating cereal prices pushed Mr. Holdstock to further maximise grass and silage use and reduce concentrate input.

"My aim is to keep costs as low as possible by using home-grown forages. We have increased our grassland by 100 acres to enable us to raise cattle with less concentrate. This has also allowed us to increase our income from selling corn."

The Sussex is a very good forage converter, says James Holdstock.

The farm has also increased the amount of silage cut from adjoining holdings. "About half of our silage is cut from neighbouring land. This proves highly cost effective."

The grass used is often quite mature, but provides a good, low-quality feed for Suckler cows.

Mr. Holdstock aims to maximise farm sustainability as much as possible. "We try to do as much within the business as possible to help run a low-cost, system. Equipment is at hand to bale and wrap any extra grass for silaging. We also grow our own oats, barley and wheat."

About 60% of the herd is spring calving, with 40% calving in autumn. "In the second half of winter, we feed some creep to autumn-born calves. This gets the calves growing without over-feeding cows."

Heifers born in the spring are on the dam through the summer and are then put on silage and minerals in winter, before being put out to grass. Bull calves remain on the dam for the first season and then move on to concentrate and silage.

Cows are also used as part of the arable rotation. "After winter barley we plant a turnip crop, which is grazed by the spring calvers."

Herd genetic improvements have been in line with this change in system. "As we have changed our system, we have been able to select cows that are good forage users," Mr. Holdstock continues.

"Any animal that needs more concentrate will stand out, allowing her to be selected out of the herd. Equally, a good forage user will be reflected in the quality of her calf." In turn, calf growth rate information is recorded as part of the Signet Beefbreeder service.

As a result, the farm has significantly reduced concentrate use. "Despite cow numbers increasing by 25%, we are using less rolled corn and concentrate over the same period than we were 10 years ago."

Most concentrate is used for finishing bull calves to 21 months. "By not pushing bulls to finish quickly, we are saving concentrate costs.

"With a native breed growth rates may not be as good, but this is easily balanced out by reduced costs."

In general, cows are selected for good legs and feet, a good top-line and conformation, and a long nose. "I like cows that are not too wide across the temple with a long nose to allow an easy calving," he says.

Labour is a big consideration, adds Mr. Holdstock. "The fact the Sussex is so easy to look after means my stockman, Justin Amos, can be responsible for 500 head and also bale and drill on the arable enterprise, which cuts costs further."

The breed also fits well with environmental schemes. "A lot of land in this area is in EELS or HIS. As a result we need cattle that can graze marshland efficiently and maintain the environment.

"We put cows out on marshland made almost entirely of rushes and they grazed down highly efficiently and got the grass growing again."

BEEF FARMER

"Going Native" ...is more profitable than you imagined

Beef Farmer reports on the commercial success of farmers using modern Sussex cattle. In very recent history no one would have questioned that the future of the UK beef industry was inextricably linked to the big continental breeds. With superior muscle development and lean carcass quality they looked invincible; the native breeds were increasingly seen as a niche market, definitely providing tastier beef but economically difficult to justify on a farm of any scale.

But as they say, what goes around comes around and maybe there's a sea change afoot? Global warming will undoubtedly reduce the quality of the grass grown in many parts of the UK (and there's nothing to suggest that the price of the fertiliser needed to address this will reduce) and labour costs will continue to rise. Set against these economic givens, the native breeds - which finish on far from perfect pasture, and are much more self sufficient than their continental cousins, are not looking such a foolish bet.

Typical "modern" Sussex heifer

But as UK beef producers begin to consider the need for more native blood, the big players - like the Angus and Hereford - may not get it all their own way. Mention Sussex to most farmers north of the Thames and they think of small dark cattle and fat heifers, but thanks to a quiet revolution in breeding terms it may be time to reconsider the breed if you are thinking of "going native".

Two farms in the South East both produce "modern" Sussex cattle, but where one is finishing twelve month old bull beef at around 320kg A/W, the other is killing 20 month heifers at the same weight but without the use of concentrates. Both farms have far from perfect pasture and employ minimal labour, yet both operations show an excellent return on investment.

Bull Beef

Bunghurst Farm in Sussex is in the middle of the High Weald, an area of Outstanding Natural Beauty but renowned for its heavy clay. The 350 acres of mixed grassland, water meadows and woodland supports herds of pedigree Simmental and Sussex cattle, 50 cows in total, plus another 30 commercial Sussex and Sussex X cattle.

The majority of the Sussex cattle stay out as long as the ground will stand it - usually early December - and are then fed on straw and hay until they begin calving in March when silage is also offered. An interesting comparison sees the yards of Simmental cattle eating six bales of silage a week against the two used by the same number of Sussex. The cows are turned out in April and the bulls arrive at the end of May but are then taken out eight weeks later. Brenda Hide, farm manager at Bunghurst, who is solely responsible for all the cattle, takes no prisoners when it comes to fertility. "Any cows not in calf after eight weeks go to the fat market - and while we may make exceptions for the heifers, with the cows it's black and white, even so the herd includes plenty of cows in their teens."

"With limited labour we can't afford to spin out our calving pattern and using this policy 85% of our cattle calve in the first three weeks and 15% in the latter. With some 50 Sussex cattle it would be unusual if more than two or three weren't in calf after two cycles with the bull."

"Another advantage of the Sussex is their ease of calving. This year we only intervened once and for the last two years we have not lost a single calf, which at the end of the day makes a significant impact on the bottom line".

The cattle are then turned out onto permanent pasture - and even in the driest summers receive no supplementary feeding - until August when the cows with bull calves are split from those with heifers. Creep feeders are put in and using a 15% beef nut, the heifer calves are rationed to 1kg a day each while the bull calves are on ad-lib.

At some point in November, weather dependent, the bull calves are weaned and brought in where they continue on ad-lib nuts plus barley straw. From Christmas, the local butcher draws two a week, which get sent less than a mile up the road to the local Tottingworth abattoir. By April all the bulls, except those retained for breeding, will have gone which conveniently leaves the pen empty for the cows to calve down again for another year.

These Sussex bulls, all between ten and twelve months old, are killing out between 280 and 320kg D/W, an ideal size for the local independent retail butcher, who also appreciates the very lean quality of the carcass. As a result he is happy to pay over the odds - currently £2.95/kg D/W - and picks up the killing charge.

Continues Brenda "This system works well for us as it requires little labour, minimal housing and a quick return on each cow. It would not have been possible to push the traditional Sussex in such a way, but thanks to the development blood that was introduced in the seventies, mainly Limousin and Angus, the modern Sussex offers a hardy, docile animal but one that can be pushed fairly hard without getting too fat. On that basis the Sussex herds at Bungehurst represent a profitable enterprise".

Extensive Approach

At the other end of the spectrum Roger Dunn in Kent is finishing heifers at 20 months that have never seen a beef nut in their lives.

The 600 hectare farm at Goldstone in East Kent is flat marshland, whipped by winds that storm in off the North Sea, not the most hospitable of environments. About 200 hectares is down to fruit, 200 to arable and the poorer pasture that is not suitable for cropping is grazed by a herd of some 90 Sussex cows and followers. These are split into two groups one calving in March/April and the other in September/October, a system that allows them to calve the heifers at two and half years.

The herd was first established by Roger's father with a nucleus of traditional Sussex cattle.

Using a Red Angus bull he was very keen to develop polled cattle and so was one of the early pioneers of breed development. While the majority of the Goldstone cattle are now polled, Roger has continued the development programme using Salers to introduce more scale.

Interestingly however, he is now wary of going too far down this route having found that anything with more than about 1/16th continental blood proves too expensive to finish on the quality of the pasture found at Goldstone.

The spring born calves at the farm are turned out in March/April and as all the bull calves are castrated they stay together until they are weaned in November. The location of the buildings means the cattle are

Bull beef at 12 months

wintered in the centre of the operation, an ideal situation for maximising the by-products of the other enterprises such as apples, pears and potatoes. Apart from these, the calves are fed on silage analysed and then mixed with a Keenan feeder to give a total mixed ration with a 16% protein level. This is fed ad-lib with each animal consuming about 20kg of silage a day.

These cattle are then turned back out in the spring and some of the heifers will be ready to kill off grass by the autumn. The remainder are overwintered on the same total mixed ration with around four being drawn off each week to be slaughtered locally and then sold through the on-farm shop.

The most recently killed steer was sixteen months old, live weight 478kg, dead weight 260kg (54%) producing 171kg of sellable meat. See Chart 1. In the farm shop, this retailed for £1435 representing a significant profit once all costs had been accounted for.

Chart 1			
Cut	Amount kg	Price £/kg	Total £
Mince	16.0	5.75	92.00
Braising	45.0	7.00	315.00
Shin	3.0	5.75	17.25
Forerib	12.0	10.00	120.00
Brisket	6.0	6.50	39.00
Burgers & Sausages	22.5	5.00	112.50
Sirloin	10.0	16.50	165.00
Fillet	3.0	28.00	84.00
Topside	39.0	8.50	331.50
Rump	10.0	13.00	130.00
Leg	5.0	5.75	28.75
TOTAL	171.5		£1435.00

Concludes Roger "This extensive system works well here on the Kent marshes. The Sussex cows we have here are very hardy requiring little input in return for an annual live calf. Last year we put 94 cows to our Sussex bulls of which 12 were heifers. Of these two were empty, and of the other 92 we had 100% live calves with just 3 assists, one major and two tugs. With this level of fertility and self sufficiency, our Sussex suckler herd fits very well into this busy farm where all too often there seem to be more pressing things to attend to".

Autumn Show and Sale

Both these breeders send quality pedigree heifers and bulls to the Sussex Society spring and autumn Show and Sales. The next Hobbs Parker sale at Ashford market is on October 20th.



Mike Hind and Brenda Hide at Bungehurst Farm, East Sussex

Pedigree blueprint for Sussex success

By Jane Howard - Pictures: John Eveson

Michael Hind explains why the Maplesden pedigree Sussex herd at Bungehurst Farm are challenging perceptions of the Sussex breed north of Watford Gap.

ALTHOUGH he had a history of keeping Simmentals, when Michael Hind bought Bungehurst Farm in East Sussex, he knew he would be better off with a native herd.

The 162 hectares (400 acres) of permanent pasture, woodland and water meadows did not offer the best grazing, besides which his other passion was to establish and run a shoot. While it was clear the cattle would need to be thrifty and self-reliant, the jury was out with regard to which breed to choose.

As fortune would have it, the purchase of Bungehurst coincided in 2000 with the dispersal of the famous Maplesden pedigree herd of Sussex cattle established by Mick Reid just after the war.

As a result, Mike was able to purchase about 20 Maplesden cows and heifers and, as an added bonus, secure the services of Brenda Hide, previously farm manager at Maplesden.

Together, Mike and Brenda have built up the Mayfield herd which today numbers around 80 Sussex cows and followers and, not surprisingly, about 20 pedigree Simmentals.

So why did the decision lie with the Sussex?

"Mention Sussex to most farmers north of Watford Gap and they think of small dark cattle and fat heifers" explains Mike.

"But thanks to the breed development programme which started in the 1970s using Limousins and has continued over the past 40 years, much has changed.

"The modern Sussex provides a useful combination of a thrifty, docile, milky cow producing offspring which can be pushed hard to finish at 10-12 months. On that basis, we have a profitable enterprise here at Bungehurst."

The Sussex cows at Bungehurst are split, with about 40 in the pedigree Mayfield herd and the remainder, some of which are a Sussex/Simm cross, in a commercial herd.

Modern suckler herd



Show bull Mayfield General 1st top priced at 4,400gns.



Simmental calves from Sussex and Simmental cross Sussex cows – part of the commercial herd.



Simmental sired calf from Simmental cross Sussex cow.

The aim for the pedigree herd has always been to produce cattle - bulls and heifers - which are big enough to take their place in any modern suckler herd and those that don't make the grade in terms of their size, are moved across to the commercial herd.

Once in the pedigree herd, each cow is reassessed after her second calf to ensure her offspring are also delivering.

The bull calves from both herds are all kept entire. The majority are pushed hard to be sold off the farm as finished bull beef before they are 12 months old.

The best pedigree pair are kept for the show ring with perhaps another three or four being sold for breeding, usually for suckler herds but increasingly into the dairy industry as farmers recognise the Sussex as a useful bull for their heifers.

The reputation of Mayfield bulls is such they command very good prices, for example Mayfield General 1st, a 20-month-old bull which reached top price at the Sussex Society Sale last autumn when he sold for 4,400gns. Others have sold privately for well in excess of that figure.

As there are only a few Sussex herds in the UK breeding bulls, finding new genetic lines is always a thorny issue.

It is a problem not helped by the fact that DEFRA bans the import of semen from the two countries – South Africa and Australia – where there are large Sussex populations.

In the past 10 years Bungehurst has purchased bulls from other breeders using five different lines: Wellington, Supreme, Major, General and Intelligent – but where is next on the cards?

"In order to extend the gene pool and to push forward a programme to make all our cattle polled, four years ago we purchased a Red Angus bull, Leachman Red Partner," says Brenda.

"He was used on half our pedigree cows and 100 per cent of the first cross heifers were polled. We then used a pure but polled Sussex bull, Slaugham General, on these A cows and 50 per cent of their B heifers were polled.

First polled

"Conveniently we're killing two birds with one stone and we now have our first polled C heifers on the ground, all of which can be registered in the full pedigree herd book.

"It's a successful project and one we-might well repeat in the future with another Angus line."

While numbers have been building, the majority of the pure Sussex heifer calves have been retained at Bungehurst for breeding or, if not big enough, finished and sold in the fat market. A Simmental bull is always used on the commercial Sussex cows and these cross heifers are in demand.

For two years, the entire female crop went to Yorkshire to JSR Farms as they developed their stabiliser cattle and many have been sent to Scotland. In order to generate these sales, the farm has had to gain BVD- free



Pedigree Sussex cow and calf – part of the Mayfield herd.



A development bull. The breed has benefited from a programme started in the 1970s



Sussex heifers are sold privately if not required for breeding.

accreditation and Brenda is convinced this is the way forward for all pedigree breeders, especially for those selling bulls.

The day-to-day care of the cattle at Bungehurst is carried out by Brenda, with help three days a week from stockman Mark Cornwall. The cattle stay out as long as the ground will stand it – this usually means early December as this is heavy Wealden clay – they are then fed on straw and hay until they begin calve in March when silage is also offered.

An interesting comparison sees the yards of Simmental cattle eating six bales of silage a week against the two used by the same number of Sussex.

When it comes to fertility, Brenda takes no prisoners: "With limited labour and a busy summer showing season, we can't afford to spin out our calving pattern and so we take a fairly tough line when it comes to fertility.

"The bulls are put in with the cows at the end of May but are taken out eight weeks later. Any cows not in calf at that point go to the fat market and while we may make exceptions for the heifers, it is black and white with the cows. But even so, the herd includes plenty of cows in their teens," says Brenda.

"Using this policy it would be unusual if more than two or three weren't in calf after two cycles and 85 per cent calve in the first three weeks with only 15 per cent in the latter.

"Another advantage of using a native breed is their ease of calving. This year, we only intervened once and for the last two years we have not lost a single calf, which at the end of the day makes a significant impact on the bottom line."

In the spring, the cows and calves are turned out on to permanent pasture without any supplementary feeding.

"As the summers look likely to get hotter and drier here in the South East, the ability of the Sussex to thrive and milk well on dry pasture will be more important.

Calves rationed

"In August, we split the cows with bull calves from those with heifers. Creep feeders are put in and using a 15 per cent beef nut, the heifer calves are rationed to 1kg a day, while the bull calves are on ad-lib," she added.

At some point in November, weather dependent, the bull calves are weaned and brought in where they continue on ad-lib nuts plus barley straw.

From Christmas, the local butcher draws two a week, which get sent less than a mile up the road to the local Tottingworth abattoir. By April, all the bulls, except those retained for breeding, will have gone which conveniently leaves the pen empty for the cows to calve down again for another year.

"These bullocks – all between 10 and 12 months old – are killing out between 280kg and 320kg deadweight, an ideal size for the local independent retail butcher, who also appreciates the very lean quality of the carcass. As a result, he is happy to pay over the odds and picks up the killing charge," says Brenda.

Showing cattle at summer shows has always been an important part of the calendar at Bungehurst and has proved to be an excellent shop window for the breed and the Mayfield herd.

With the 2010 show season now in full swing, the Mayfield Sussex cattle have already been to the Heathfield, Surrey County, South of England and Royal Norfolk shows and, this weekend, sees the team turn out again at the Kent County Show. For the first time the policy is to show 'development' cattle alongside the more traditional types and Brenda is quite clear why.

"While there are many things about our native breeds, like thrift and temperament that are as important as ever, we must keep pushing forward when it comes to polling.

"And if that means moving on from some of the established breed standards, then so be it."

It's a brave policy but one that seems to be paying off. One yearling bull, Mayfield Poll Captain 2nd, which is 1/12th Angus, has twice been male champion this year and has attracted a great deal of interest from breeders wanting to buy into the Bungehurst blueprint for the future.

FARM FACTS

- 162ha (400 acres); 142ha (350 acres) permanent pasture and water meadows; 20ha (50 acres set-aside/game cover)
- Contract out silage making and hay baling
- Entry Level Stewardship land
- 200 keep sheep on farm from November to March
- 40 pedigree Sussex cattle and 20 pedigree Simmentals
- 40 commercial Sussex cattle put to Simmental bull
- All bull calves not kept for breeding sold off as bull beef
- All heifers not kept for replacements are sold privately
- Show ring success includes inter-breed champion at Surrey County Show and champion Sussex cow for Mayfield Snowdrop 4th at the Royal Show

Sussex cattle are the preferred breed to cope with marshy land

Kent farmer Roger Dunn has worked with Sussex cattle all his life and believes they are best suited to the marshy land he farms and also provide an excellent source of beef for his farm shop. KATIE LOMAS went to meet him.

While the best land at Goldstone Farm, near Ash, Canterbury, Kent, is used for arable and fruit crops the 'poor' pasture is the ideal grazing ground for the farm's herd of pedigree Sussex cattle.

Roger Dunn, who takes care of the livestock and the farm shop, is one of five in the business partnership – Chandler and Dunn – who farm the 600 hectares.

Mr. Dunn's brother, Paul, is in charge of the arable enterprise and the other three – cousins from the Chandler side of the partnership – take control of the fruit crops.

The first Goldstone pedigree Sussex cattle were registered by Mr. Dunn's father in 1946. Sussex cattle are indigenous to the area and although the breed has gone through many changes over the last 50 years Mr. Dunn believes they are still the best suited to the terrain of the farm and 'thrive on poor pasture'.



Roger Dunn with his Sussex cattle that have been put out to graze.



Six-month-old Sussex calves.

Although some land is suitable for cropping around a third of the farm is classed as 'marsh land', which runs down to the River Stour and is heavy clay river silt.

The 90 pedigree cows and followers graze this land with the resulting beef all being sold through the farm shop, Goldstone Butchers, started when the effects of BSE were being felt across the beef industry.

"We were getting fed up of poor prices so we started selling beef packs and it progressed from there" said Mr. Dunn "After foot-and-mouth in 2001 a small family-run abattoir opened about six miles from us so we decided to make use of that and start direct selling from the farm."

He began the venture thinking he would sell only part of the beef crop and half of the lambs, also bred on the farm, through the shop but demand dictated that all the primestock now bred on the farm would be sold this way.

"We started off with a cabin and after a while found that people were interested in coming down to the farm, which is the back of beyond, and so we converted a barn into a shop."

On a weekly basis one and a half beasts are sold over the counter along with 10 lambs and six locally sourced pigs. Another two beef carcasses and 10-12 lambs are sold to wholesalers and through a market stall each week.

Mr. Dunn aims to have the cattle ready at around 22 months of age with the steers weighing 300kg deadweight and the heifers around the 280kg mark, although this is not set in stone. The supply has to be continuous and this is where he believes the advantages of having a shop comes in.



One of the farm's five Sussex bulls

“The beauty of having our own shop is it doesn't matter what size the carcass is. If the animal is fit to kill, we can kill it. If we were trying to sell at market we would probably try to get a little more weight on it. Because we are supplying our own shop we can juggle things a bit to suit us.”

Beef carcasses are hung for three to four weeks and he said there was ‘just about a margin in it’. At £2.30/kg a 300kg steer would bring a return of £690.

“We're possibly making around £100 a bullock but we only have to lose one animal and that profit goes down,” he said.

In the summer the cattle are fattened straight off grass with turnout being in April. Calving takes place twice a year – once in autumn (August to September) and once in the spring (March to April).

The autumn calvers stay out for as long as possible and when brought back inside, around November time, the cows and calves are put on a silage-based ration of 25kg silage plus waste apples and potatoes, a useful by-product from the arable and fruit enterprises.

The in-calf cows and heifers are put on a straw-based ration and as they get nearer calving around 10-12kg of silage is added to their diet.

“We want the cattle to be fit but not too fat. Once they go back out onto the grass they put it straight on again,” said Mr. Dunn.

The finishing ration is fed for 90 days and the winter fattening ration is a TMR of 25kg silage, 3.5kg starch pellets, 0.5kg protein and some minerals. “It's not a rich mix and it's one that these cattle can cope with. If there were some continental breeding in them they would want a stronger, more powerful ration,” he said.

One cut of silage is taken with clamp silage made for the first time last year. “We always used to round bale the silage but have now gone to clamp silage. It's easier to use, is a better consistency and is cheaper to produce. We now spend less time mixing and feeding.”

As Mr. Dunn is the only full-time worker on the cattle side of the business with two of the arable workers do the bedding, using a straw chopper, and the feeding using a mixer wagon.

The cattle enterprise is split over two units, housing cows and calves on one and finishing on another, and feeding takes place every other day with enough for two days being put out each time.

The herd has five stock bulls, a mixture of home-bred and bought in bulls to keep variation in the bloodlines.

Surplus heifers and bulls deemed good enough for further breeding are sold at society sales at Ashford Market with the average price achieved for Goldstone-bred heifers recently being around £850-£900.

Around 15 to 20 heifers are kept each year as breed replacements. EBVs are recorded and he believes this is useful, as it allows him to see the improvements the cattle are making.

Mr. Dunn said the Sussex breed had gone through many changes from when it first became a recognised breed:

“They used to be known as draft oxen and were big cattle in those days. In the 1950s, when all the breeds went abroad and the trend was to get all cattle smaller, they did get smaller.

“In those days we followed the trend but as time and markets changed the continental breeds came in and everyone wanted bigger cattle again.”

Limousins were introduced to the breed in the 1980s to get larger cattle with better conformation and since then the Aberdeen-Angus breed has also been introduced to get the polled factor into the Sussex cattle.

However, Mr. Dunn has a clear idea on what he wants his cattle to look like: “We always aim for good conformation. I want to keep the size and length of the cattle, as it’s very easy to get smaller and much harder to get bigger.

“Sussex cattle used to be known as being fat and dumpy but now they have a bit more stretch about them. What the continentals did for the breed was to clean it up a bit. But I still want to keep the attributes that Sussex cattle are best known, such as their grazing ability and docile nature.”

“We have tried other breeds but on these marshes the breeds from this area are the best for the job,” said Mr. Dunn.



Butcher Ross Lake outside the shop with a selection of cuts.