



Farming at Beechenhill



Sue Prince OBE DL



**A comprehensive guide to farming
at Beechenhill Farm
By Sue Prince**

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Introduction

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Beechenhill Farm

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Where

The 37-hectare organic dairy farm of Beechenhill is situated at the southern end of the limestone plateau of the Peak District. It lies at 300 metres (1000 feet) above sea level and has a southern aspect. The farm is one mile north of the picturesque village of Ilam (population 90), 6 miles north of the small market town of Ashbourne, 16 miles from Derby, 18 miles from Stoke-on-Trent and 25 miles south of Manchester.



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Landscape

Beechenhill lies on the southern slopes of the hill between the Dovedale gorge and the Manifold Valley. The confluence of the River Dove and the River Manifold lies 2 miles south of the farm. The river valleys are deeply incised into Carboniferous Mountain Limestone. The Dove, forming the county boundary between Staffordshire and Derbyshire, tumbles through a narrow, steep sided valley with precipitous rock faces and steep wooded and grassy slopes. West of the Dove, the Manifold Valley is wider with undulating slopes descending from about 300m to 150m forming a dale 0.2km across.

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Natural Resources

The soil type is good neutral/acid loam on limestone, light with a tendency to drought. Rainfall is 1016-1270mm per annum. Climate is frost free from April to October. All field boundaries are the traditional dry stone walls common to the area. The farm has no natural water source other than two rainwater reservoirs (a tank and a mere, both built in early 1900s) and an intermittent spring in a lower field.

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Administration

The farm is in the administrative area of Staffordshire Moorlands District Council, in the Peak District National Park and in a Department of Environment, Food and Rural Affairs (DEFRA) designated Severely Disadvantaged Area.

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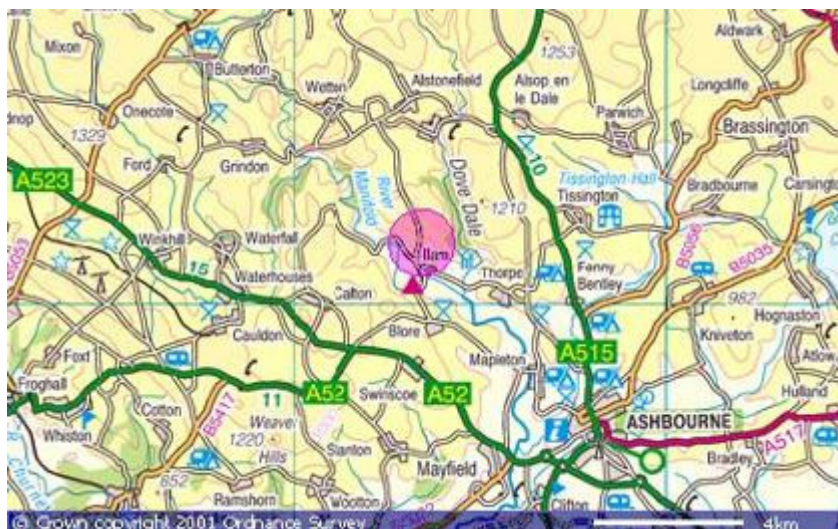
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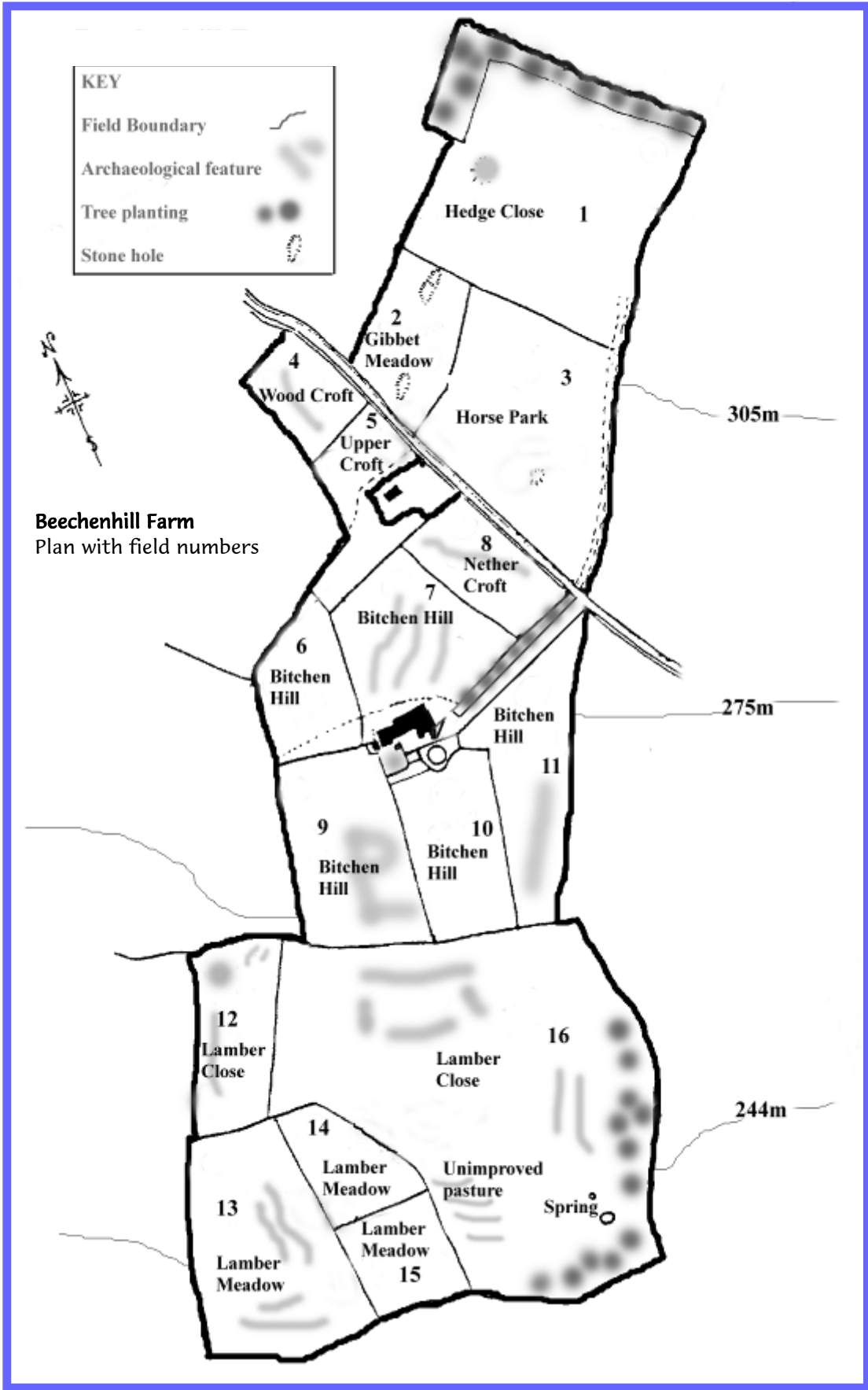
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Farming in a National Park

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What is a National Park?

'National Parks are the most beautiful and dramatically different expanses of the country in England and Wales where people can enjoy a wide range of open air recreation' states the Countryside Agency. Ten National Parks were established during the 1950s and the Broads Authority was established in 1989. More areas are currently being proposed.

National Parks are run by National Park Authorities. A National Park Authority is a public body made up of two groups of people - members and officers.

The members are the people who make the decisions. They are responsible for setting policies and priorities, ensuring resources are well used and money well spent. They also have to explain what they are doing and why, demonstrating that the Authority is providing a responsive public service.

There are currently 30 members on the Peak District National Park Authority, none of whom are elected directly: 16 represent county, district, city or borough councils, 15 are appointed through the Secretary of State. Of the latter, some are appointed directly because they understand and have specialist knowledge about issues that affect the National Park and some represent parish councils.

The officers are employees who work to the policies and carry out the decisions made by the members. On routine matters members ask officers to take decisions directly, in line with agreed policies.

The officers are responsible for the day to day operating of the Authority and their work is broadly divided into four areas: Planning, Conservation and Land Management, Recreation and Administration. These areas often overlap and officers work together to look after the Park and provide a high quality of service.

The law requires the National Park Authority to carry out two **statutory purposes**:

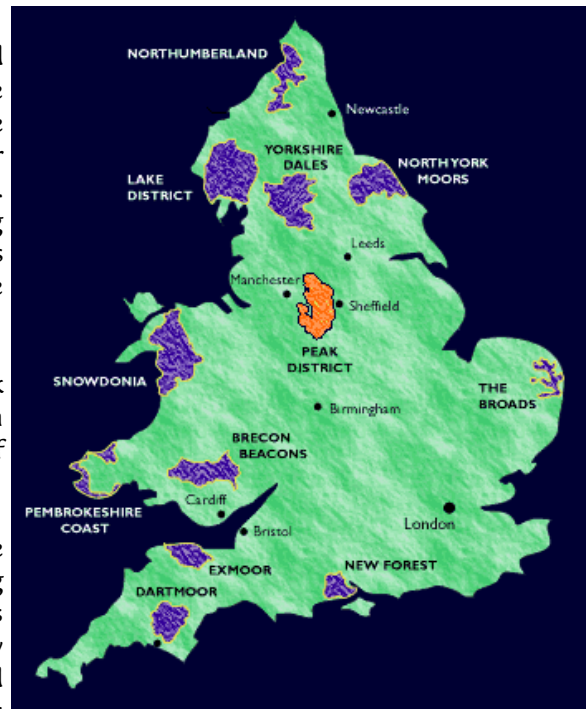
To conserve and enhance the natural beauty, wildlife and cultural heritage of the area.

To promote opportunities for the understanding and enjoyment of the Park's special qualities by the public.

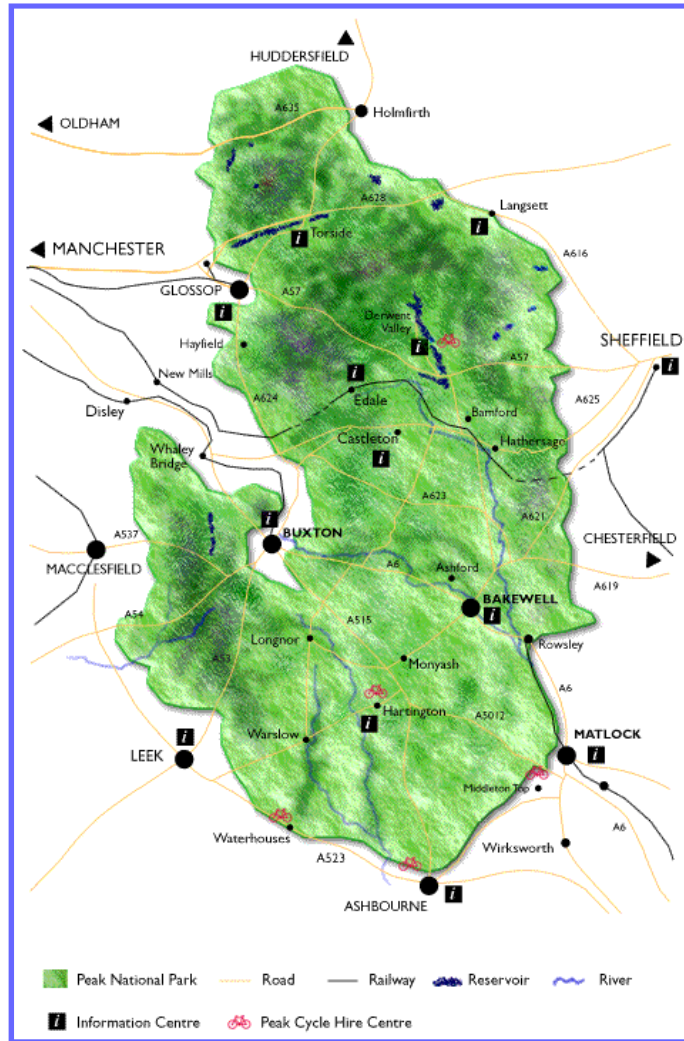
While carrying out these purposes it also has a **duty**

To seek to foster the economic and social well being of local communities within the National Park.

The full Authority meets regularly. It sets overall strategies on policies, resources and delegates and approves the business. There are two committees planning and resources and some other sub-committees.



Map- Peak District National Park Authority



Map: Peak District National Park Authority

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The sustainable development directorate looks after Farming, conservation, estate management and visitor services, including access, ranger services, traffic management, forestry, landscape and management agreements, information services and the English National Parks' Study Centre at Losehill Hall.

What is it like to farm in a National Park?

The special Peak District landscape has developed as a result of thousands of years of farming; in 1951 this was recognised as a landscape that was to be valued and therefore protected. We find farming in the Peak District National Park to be a positive and beneficial experience. The National Park Authority has very able and responsive advisors, specialists, and rangers. They always try and find answers or help farmers with the mountains of bureaucracy that plague them nowadays. The advisors and rangers understand the type of farming practised in the Peak District, they know the farmers and often visit them.

The relationship between farmers and the National Park Authority is very important because two thirds of the landscape is privately owned. There are about 2,500 farms in the Peak District National Park. Therefore the special quality of much of the landscape is in farmers' hands.

Does being in a National Park change the way you farm?

Although there are no rules or regulations to dictate how we should farm, there are positive incentives to encourage environmentally friendly farming. We have chosen to farm organically, which is in tune with the natural world and the National Park purposes. Intensive farming,

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which creates a lot of waste and can damage the environment would be in conflict with the purposes of the Authority.

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Traditional Peak District fields are small with dry stone wall boundaries. These walls are very important landscape features in the Peak District National Park. To farm intensively it may be deemed necessary to remove stone walls to form bigger fields and accommodate large, modern machinery. This would be seen as destructive to the landscape.

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Walls cost money to build and to maintain. Every year walls tumble down because of heavy rain or frost, animals sometimes knock them over and occasionally walkers lose their way and inadvertently damage walls by climbing over. Most farmers like to have a tidy farm and it could be more cost effective to have post and wire fences, but many Peak District farmers try to repair and look after their walls in the traditional way. The National Park Authority encourages farmers to look after walls, woodlands and other special features by providing grants to restore and maintain them. National legislation is in place to stop the removal of hedgerows, but does not apply to stone walls.

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Are there special grants and schemes for National Park farmers?

Being in a National Park means farmers and landowners are eligible for special schemes:

- Peak District National Park Authority's Live and Work Rural Programme gives advice about how to live and work in sustainable ways.

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- The Peak District Environmental Quality Mark is part of this programme. To qualify for the mark businesses have to achieve high standards of care for the environment in all aspects of management, including conservation, local sourcing, minimisation of waste and efficient use of natural resources.



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- Peak District National Park Authority's Farm Conservation Grant Scheme can fund land management such as the construction of species rich hay meadows or capital works such as pond restoration, tree planting and boundary walls.

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- Department of Environment, Food and Rural Affairs' (DEFRA) now issue payments to all farms nationally for environmental care and improvements of the land- see page 36 for more details.

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Are there things you are not allowed to do in the National Park?

National Park farmers are encouraged to farm sensitively. Because of concerns about ploughing of land of high conservation value an Order came into place in January 2002 prohibiting specified operations on land that contains moor or heath and that is unprotected by other mechanisms.

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The only extra constraints are in planning. Extra care is taken to ensure that any new buildings or developments comply with National Park policies, which are based on the statutory purposes.

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To sum up

It can be very confusing for farmers to know what is available as new grant schemes appear or existing ones change. It is always useful to contact National Park staff for technical expertise and advice. Through voluntary agreements and positive incentives the Park staff help farmers to look after this special landscape.

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People

A farm is a work place like a factory.

Beechenhill's primary product is organic milk and it also produces organic lamb. It has diversified into tourism and a small artwork company also runs from the farm.

Who works at Beechenhill?

Terry Prince operates the farm. Terry employs contractors to do specific jobs like silaging twice a year, shearing once a year and some relief milking. He leads farm visits for schools and others interested in organic farming.

Three people are employed part time by the tourism business run by Sue Prince, daughter Alex and son-in-law Rob. People who come to stay at Beechenhill contribute to the care taken of the farm's environment, therefore helping to safeguard the valuable landscape of the National Park. Cottage guests can buy ready meals produced by local businesses who work in an environmentally sensitive way. This way the guests are helping those businesses to invest more in the environment.

The support visitors give to the area is appreciated locally by all the small businesses. Tourism and farming are firmly integrated at Beechenhill and in the Peak District; one cannot thrive without the other.

Sue Prince is also an artist mainly involved in illustrating and producing Swedish style egg-tempera paintings and birds-eye-view maps, (see them locally in Ashbourne and Cheadle). Sue is also a consultant, working with sustainable rural business development and ecotourism projects in Sweden and Transylvania in Romania.

Weddings and courses at Beechenhill bring others to work on the farm, mainly local caterers who are passionate about local foods.

Visitors to Beechenhill

Approximately 800 people stay at Beechenhill in a normal year. There are usually about 10 visits and farm walks every year. There are up to five weddings each year with around 60 guests each time. This brings the total visitors to Beechenhill to almost 1400 per year.

To celebrate the new millennium in 2000, an avenue of 20 trees was planted, each one was dedicated to guests that had stayed regularly over the previous ten years. A guest and friend, Chris Clark from

Warwickshire, and the Peak District National Park Farm and Environment Project made this possible.



The millennium avenue of trees with lots of Beechenhillbillies



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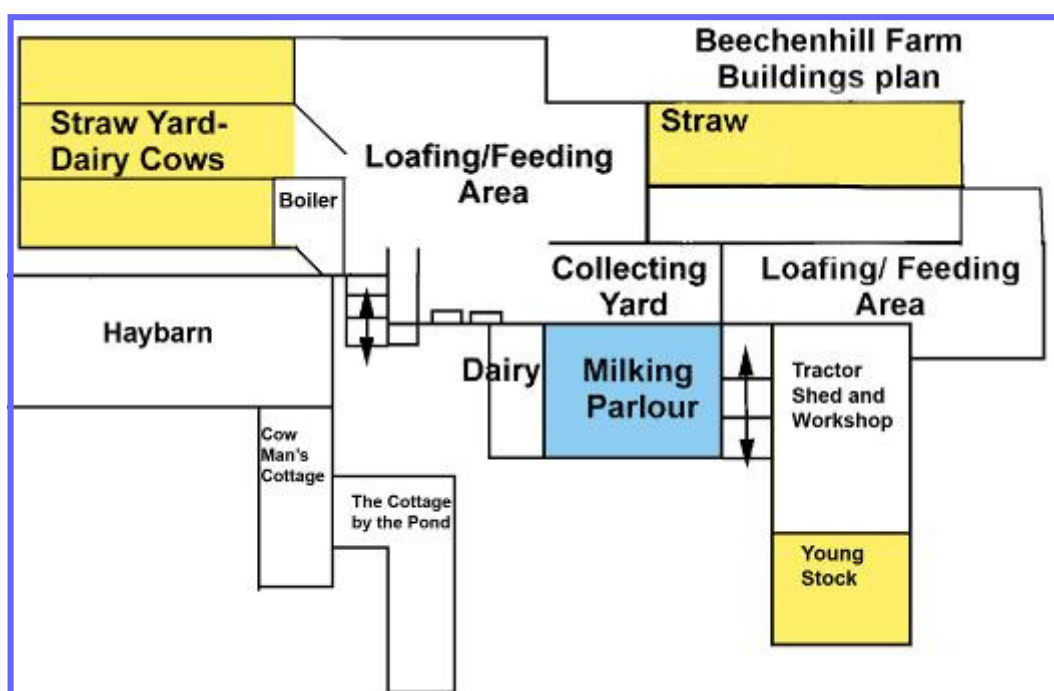
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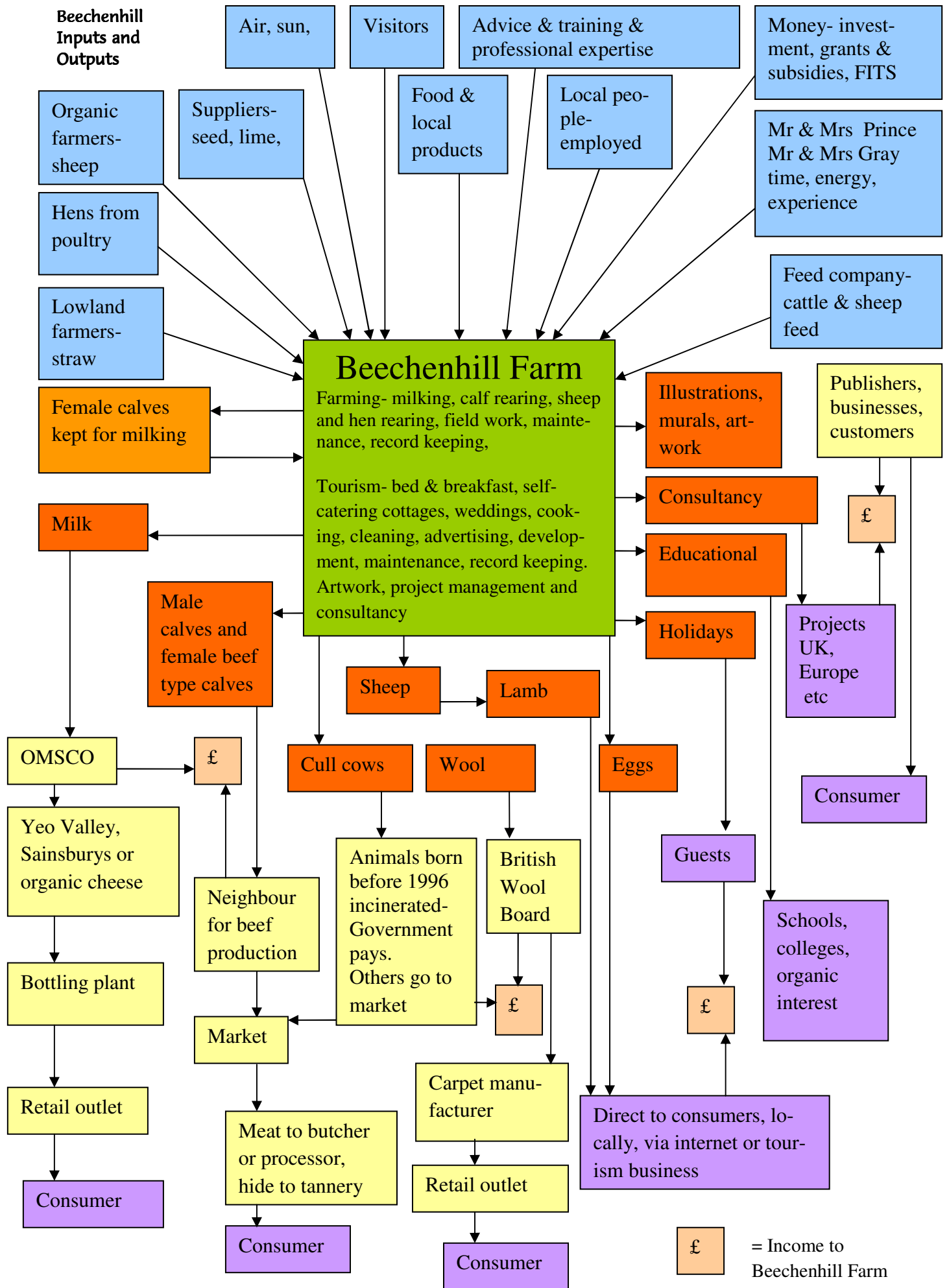
Farming Year

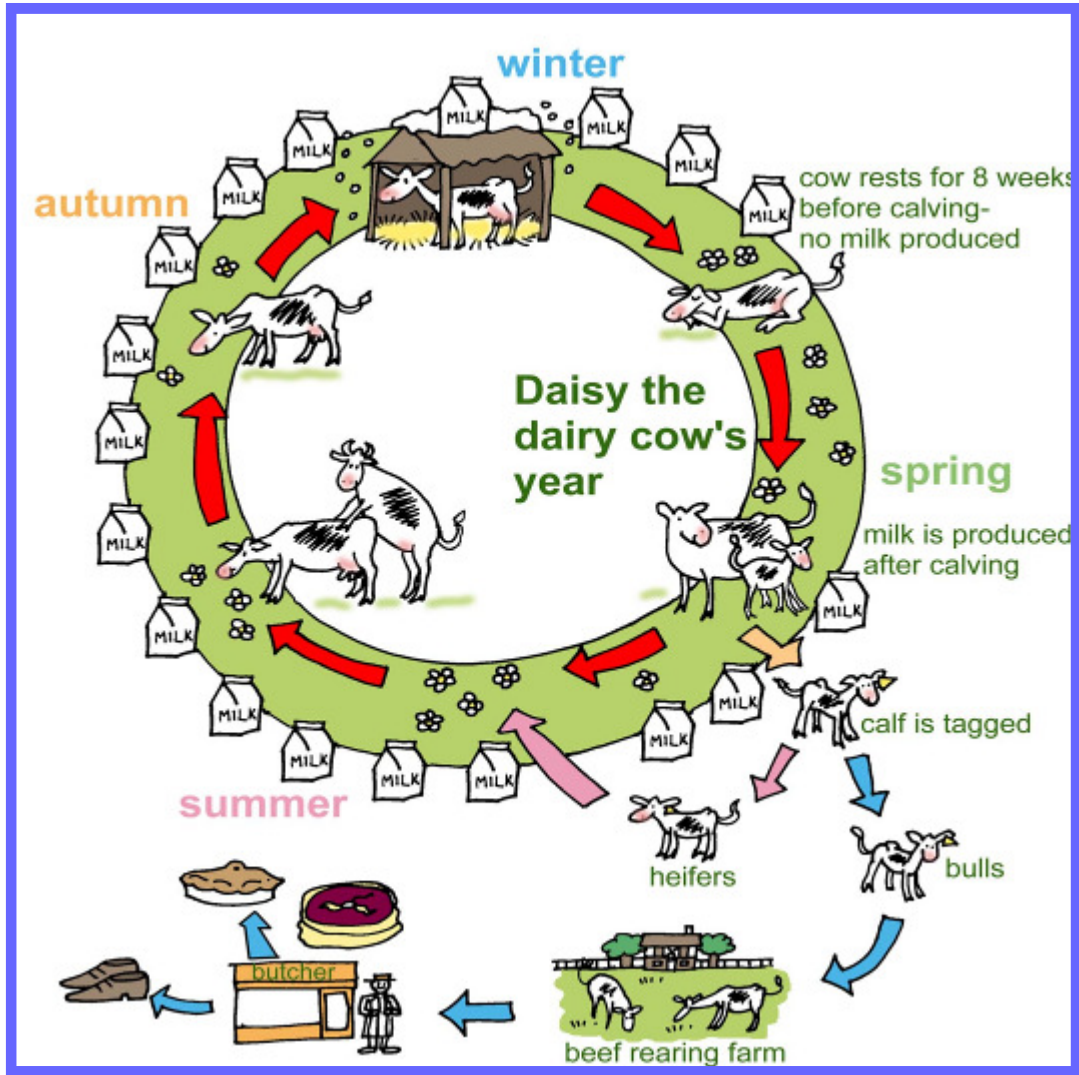
Milking, sheep and hen care, calving and general maintenance of property is done all year round

<i>Month</i>	<i>Activity</i>
Jan	Indoor maintenance- farm and holiday properties, muck stacking/composting
Feb	Indoor maintenance- farm and holiday properties, muck stacking/composting
March	Chain harrowing fields, muck spreading, hand weeding thistles, outdoor maintenance, extra food to sheep
April	Muck spreading, cattle let into pasture when weather permits, lambing
May	Walling, hand weeding thistles
June	Silage making, hay making, shearing. Muck composting and spreading, sheep sales, walling
July	Ragwort pulling, thistle mowing, silage making, walling, muck composting and spreading.
Aug	Ragwort pulling, silage making, muck composting and spreading, lamb sales, walling
Sept	Silage making, preparation of winter housing for cattle, sheep sales, lamb sales, sheep buying
Oct	Dairy cattle brought indoors, lamb sales, muck stacking/composting
Nov	Young cattle brought indoors, sheep tugging, muck stacking/composting
Dec	Indoor maintenance work, muck stacking/composting



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Cattle Breeding

How do cows get pregnant when a bull is kept?

To produce a calf, the bull (Anders) served (mated with) the cow when she was ready (on heat). A cow comes on heat every 3 weeks; her behaviour changes and she will often mount other cows and allow other cows to mount her. In the past Anders the bull lived with the cows, he served them when they were ready.



Anders was a Swedish Red bull

Cows can become pregnant at any time of year. Farmers manage this characteristic to ensure a consistent supply of milk through out the year.

Artificial Insemination

Now we are without a bull we use artificial insemination. Cattle breeding companies buy top quality bulls, selected using pedigree records and farm



inspections. The bulls' breeding qualities are tested by using their semen to impregnate cows on various farms. The characteristics of the resultant calves are recorded and, if the animals come up to the required quality, the breeding company will offer the semen for sale to farmers. The process of collecting and testing can take up to 6 years, and then the semen can be frozen and stored for many years. Sometimes the bull's semen is still being used long after he has died of old age!

The bulls are advertised in catalogues and farming magazines with pictures of their daughters. The semen is kept in short straws, (a straw looks a bit like the inside of a biro.) It is frozen very quickly and the straws are stored in special vats of liquid nitrogen at extremely low temperatures. A straw is defrosted before use and holds 0.5 cc, contains 20,000 sperm and is enough for one insemination. The semen costs between £10 and £50 per straw depending on the pedigree of the bull.

When the change in the cow's behaviour is noticed, a call is made to the Artificial Insemination Service. This service is available 365 days a year. The semen used will have already been ordered by the farmer, after due consideration of the characteristics of the available bulls. Some farmers use semen from bulls in Canada or the USA. If the farmer already has enough dairy heifers, he will choose a bull to produce beef calves.

The AI men and women travel all over the rural areas, inseminating cows within a few hours of the farmer's call. The ordered straws are stored in small portable vats of liquid nitrogen in the their vehicles. The AI person has to be very aware of hygiene. They wear protective clothing and wash their overalls and equipment carefully after each farm visit.

The AI person places the semen in the correct place inside the cow, using a special instrument. The process is very quick and efficient. After one month the cow can be tested to see if she is pregnant. A cow's pregnancy takes 9 months, just like a human.



Insemination syringe



Cow being inseminated

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Milk Production

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Milk is the most important product to come out of Beechenhill Farm

Cows naturally produce milk to feed their calves and humans have taken advantage of this natural system. Over many centuries they have selectively bred cows that produce high yields of milk.

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Why do cows produce milk?

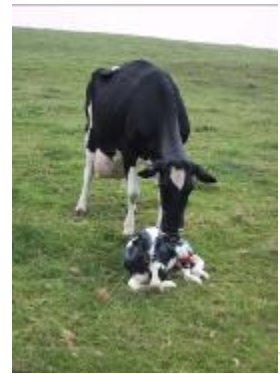
Before a cow can produce milk, it has to give birth to a calf. In order to produce a continuous supply of milk the cow must have a calf every year. Usually, female calves are reared with the intention of them joining the milking herd at the age of two to two and a half years when they have their own first calf. In the past, male calves were sold to be reared for meat. However, after years of animal rights' protests and the BSE crisis, male calves have lost their value.

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Beechenhill Rosy being helped with calving



Rosy and her new calf

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What happens to male calves?

At Beechenhill some male calves (with a dairy mother and a beef bull father) are sold to a neighbour for rearing. The remaining male calves and females with beef bull fathers are kept with their mothers for four weeks then sold in the market. This is not profitable because the cost of four weeks milk consumed is not covered by the value of the calf being sold.



2 male calves

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How long do calves stay with their mothers?

All the calves at Beechenhill are kept with their mothers for at least four days. The females, called heifers, are weaned at the age of three months. They live together with others of a similar age. When they reach about two to two and a half years old they have their first calf and join the milking herd.



Cows coming up from the field for milking

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How is milking carried out at Beechenhill?

Cows are milked every day, twice a day at 6.00am and 4.00pm. They are fed at the same time so milking is an enjoyable process for cows. They queue up eagerly and always enter the milking parlour in more or less the same order. This is also a twice-daily opportunity for the animal's health and condition to be monitored.

The milking system is operated by an electric vacuum pump. Milk is collected in graduated jars which are marked to show the amount given by each cow. The milk travels along lengths of rubber, glass and stainless steel tubing, through a filter into a large refrigerated vat, capacity 2,500 litres. The milk is cooled and stored here ready for collection every two days by tanker.

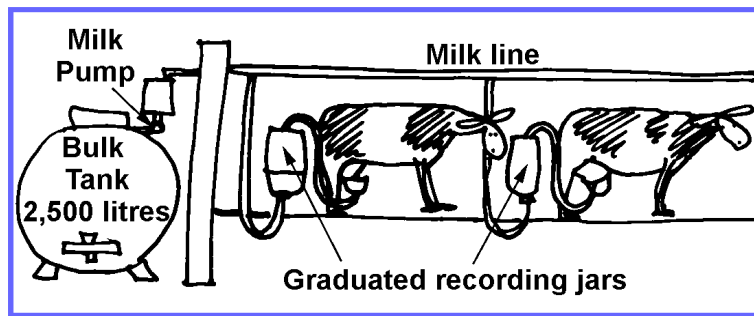
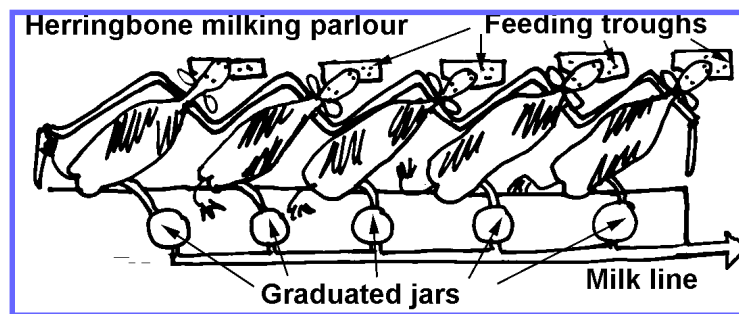


Photo - Derby Evening Telegraph



Milking



Milk Collection

Every two days the milk tanker picks up the cooled milk. The driver connects the pipe to the vat. Then the tanker records the temperature and amount being loaded.



What is the history of selling milk?

In 1933 Milk Marketing Board (MMB) was founded. It was a co-operative organisation of milk producers formed to market milk and to ensure UK standard in price, supply and quality. In 1994 MMB ceased to exist after Dairy Trades Federation complained of it being a monopoly. Farmers then negotiated individual contracts with dairy processors.

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Unfortunately this fragmented the dairy industry and, after four years of good returns (24p per litre), by 2000 the farmers' price had declined to 15p per litre. .

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Who buys Beechenhill's organic milk?

The organic milk from Beechenhill is sold to Organic Milk Suppliers' Co (OMSCO), a farmer owned organisation. Although OMSCO is based in Devon, milk from Beechenhill can go to various companies, for example Arla, Ashby de la Zouch. The 2014 price is around 40p/litre.

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How and why is the milk tested?

On arrival at the dairy, the milk is tested regularly by the dairy company quality and cleanliness. The milk at Beechenhill is specially tested, then licensed to be sold to guests. Regulations state that a test pass is less than 100 coliform bacteria per ml and less than 20,000 total bacteria per ml.

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Beechenhill milk results: 2 coliform bacteria and 900 total bacteria per ml.

A BBC Watchdog test in March 1998 found that some bottled water had results of 65 coliform bacteria per ml when tested.

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What are Milk Quotas?

Advances in husbandry and milking technology since the 1940s have increased the outputs of dairy producers in the European Union (EU) so in the 1980s there was a surplus. In 1984 a quota system was introduced. Because the quota system was based on the milk supplied during a particularly bad year, the regulations stated that the UK was only allowed to produce up to 80% of its national demand. This meant that all dairy farmers had to produce less. This amount was split up between all UK dairy farmers and individual farmers could no longer increase production without buying the necessary quota. If the UK should produce over its national quota it would be fined by the EU. The fine would have to be paid by those individual farmers who had produced over their quotas.

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Milk quota owned by a farmer who was no longer using it could be bought or leased by a farmer who needed to produce more milk. This quota trading became a lucrative business for dealers and some astute farmers. Quota became a valuable asset sold by retiring dairy farmers. The importance of quota to a dairy business became so great that much time and effort was spent monitoring and forecasting, with many animal feed companies offering a monitoring and costing service.

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The price of leased and sold quota became very variable, depending on national production. In 1996, when the UK was producing over its national quota, leased quota reached a maximum of 20p/litre (for the ability to produce milk for one year). In 2001 leased quota cost 0.7p/litre as nationally the UK didn't reach its quota. Prices for permanent sale of quota varied for the same reasons between 70p/litre in 1996 and 13p/litre in 2001.

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Because there has been a review of the Common Agricultural Policy, the 2004/5 quota price was around 12p to buy, in 2006 it was 4.5p. In 2007 it lost its value completely because there are so few dairy farmers left and the UK didn't reach its quota. The 2012 price for milk quota is 0.5p per litre.

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How much Quota is there at Beechenhill?

In 1984 Beechenhill owned 196,000 litres of milk quota (the ability to produce 196,000 litres of milk per year). Over the years a certain amount of annual leasing and trading has occurred and in 2012 260,000 litres of quota was owned.



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What do dairy cows eat?

The dairy cows graze outside from May to October. Heifers stay outside from June to November. In June and August grass is cut and preserved as silage for winter food. Fields 1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 14 and 15 are cut in June, fields 1, 2, 3, 4, 5, 8 and 11 are cut again in August (see plan page 5). The silage is wrapped in black plastic film to exclude air and stop the grass rotting. The quality of the silage is tested to enable the best ration to be used for supplementary feeding during winter.

The concentrated food the cows eat comprises: organic wheat, organic oatmeal, peas, distillers' grains, linseed meal, prairie meal, maize gluten, molasses, calcium carbonate, salt, magnesium oxide and minerals. It costs approx £365/tonne. During the winter other food is often necessary to keep the cows well nourished. Brewers' grains, sugar beet and potatoes are sometimes used.

Baby calves drink milk, adult cows drink water.



Beechenhill Emma drinking water

How do the cows stay healthy?

The cows' health is carefully monitored. In a conventional system, when cows are treated with antibiotics, milk is withheld (thrown away) for three to four days. In an organic system problems are treated when they arise without the routine use of antibiotics, which are only used to treat serious problems, and in such cases milk is withheld for a minimum of 14 days.

Other treatments used are Uddermint, and homoeopathy. The vet makes routine health visits. Intestinal worm infestation is avoided by careful grazing; young stock are grazed on clean fields before older animals. This gives the young stock an opportunity to build up immunity.



A Friesian cow

Aconite 200

An example of a homoeopathic medicine, Aconite 200 is used to treat the onset of coughs or very early pneumonia, especially after exposure to cold or severe weather. Symptoms include fever and inflammation of membranes leading to watery discharges. Dose is hourly for 3 doses



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Monitoring, Identification and Traceability

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How are animals identified?

All calves born on the farm have to be tagged with two tags, one metal and one plastic, or two plastic. The plastic tag is called the primary tag, the metal one is the secondary tag. The primary tag must be readable from a distance. Ear tags are bought and the numbers registered with BCMS (British Cattle Movement Service). The numbers have been previously allocated to the farm and animals are tagged one after another as they are born.



Photo -Derby Evening Telegraph

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Country	Farm number	Animal Number
UK	165720	1000023

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Within 28 days of tagging a calf, a passport application is made via the Internet. The passport arrives by post. It is like a small book of postcards and must be kept safely on the farm. If the calf is sold or moved anywhere the passport must accompany the animal and one of the detachable postcards must be sent to BCMS where the movements will be recorded. The purchaser of the calf must send a further card to record the new keeper.

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Pedigrees

A pedigree is yet another form of record. Until recently, all Friesian females born at Beechenhill were registered with the Holstein Society. A Pedigree Society keeps records of bulls used, and the family data of all the registered cattle. It also keeps records of the cow's yield and performance.



The yellow tag goes in one of the cow's ears, the small metal tag goes in the other ear.

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Having a pedigree herd was important when farming conventionally; it was useful to have records to prove how good the animals were. In an organic system cows are not pushed to the same extent and the aim is for a long and healthy life for a cow rather than driving for a high yield.



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The Pedigree Society keeps information gathered each month by National Milk Records (NMR) on every cow's yield, butterfat, and protein content. This is done by a milk recorder who comes to an evening and morning milking once a month. The milk recorder records the yields and takes samples from every cow being milked. This information is analysed and held by NMR and used by the farmer and the pedigree society. Pedigree records can show which families of cows have good traits and can increase the value of any cows or calves sold. A pedigree record can also hold interesting historical information about a family of cows.

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Sheep

All sheep movements on or off the farm and all births and deaths have to be recorded in a sheep movement book. Each farmer has a special identification mark; at Beechenhill the sheep are marked with a blue spot on the shoulder. All sheep must be tagged with 2 small plastic tags in their ears:

Country	Farm
UK	165720



More regulations are being introduced as a result of the 2001 foot and mouth outbreak. Any sheep born in 2010 and kept longer than a year must be electronically tagged with a chip- like a pet dog.

Organic Monitoring


To become an organic farm, having gone through a 2 year conversion period, a farm registers with a certification body. There are several UK certification bodies, the Soil Association (SA) and Organic Farmers and Growers (OF&G) are two. Beechenhill is registered with the Soil Association. At least once every year organic farms are thoroughly inspected by their own certification body. Farms may also have unexpected, spot inspections by the UK Register of Organic Foods Standards (UKROFS).

The inspection process is very rigorous and exhaustive (and exhausting!). Organic farmers are required to keep detailed records of every action, purchase or treatment. Field records detail field work completed, numbers and types of animals grazing, any applications of manure or lime etc. Detailed records are kept of animal health treatments and veterinary visits. Animal feeds are recorded, along with paperwork proving no contact with material containing genetically modified organisms (GMOs). Any product coming on to the farm must have a traceable history to prove its wholesome origins.

All of these detailed records must be made available to the inspectors. Any minor infringements have to be rectified by an agreed date, any major infringements mean withdrawal of the organic certificate and that produce could no longer be sold as organic.



Rob feeding the sheep in winter



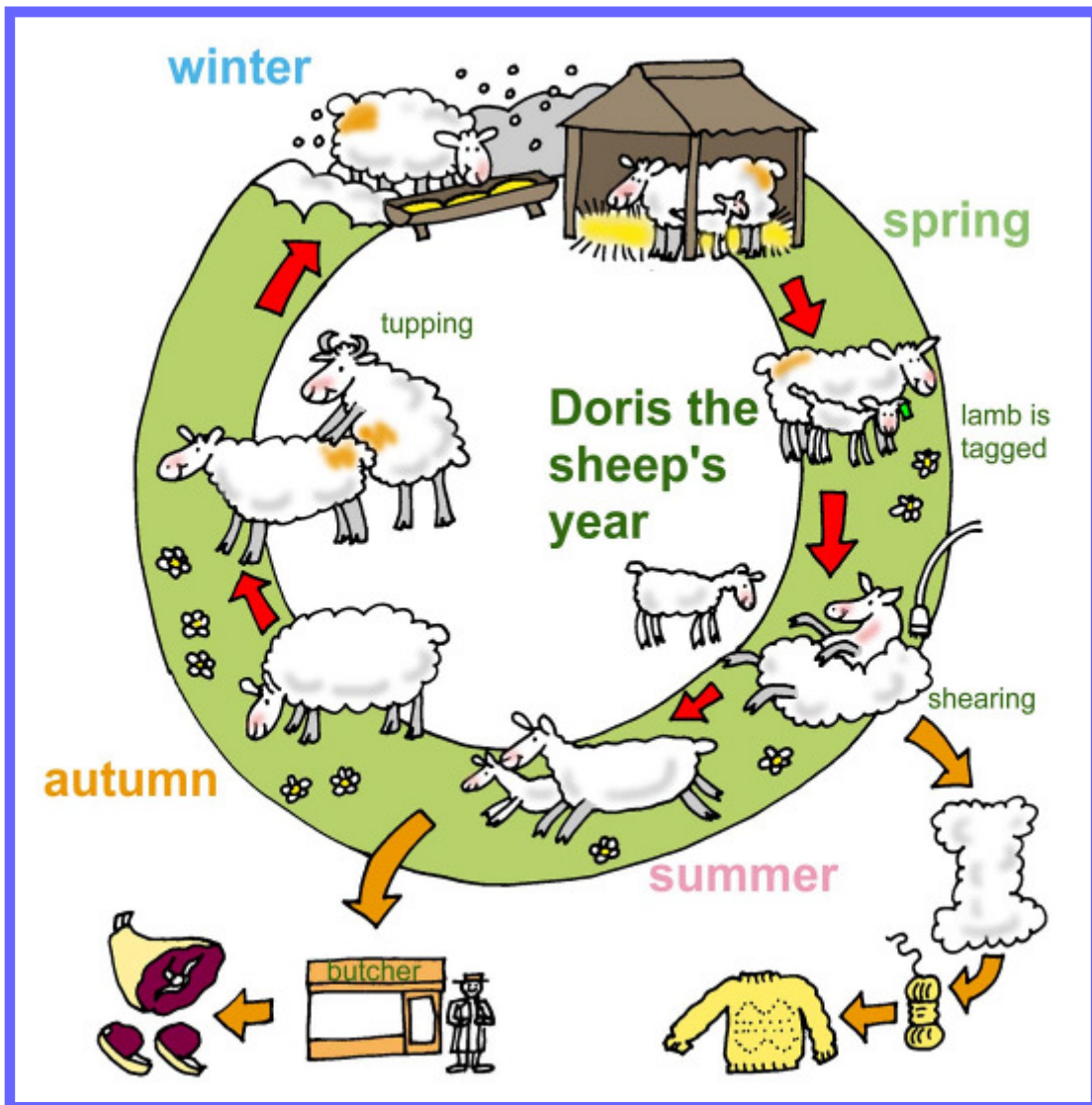
Wherever you see the Soil Association organic symbol you can be sure that food has been produced to the highest animal welfare and environmental standards.

The Soil Association's standards exceed the UK government's minimum requirements for organic food in many areas but particularly in animal welfare, GM and the use of pesticides. We can do this because we are an independent charity and our goal is to promote the highest levels of organic integrity.

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Farming at Beechenhill © Sue Prince Beechenhill Farm, Ilam, Ashbourne, Derbyshire DE6 2BD
T: 01335 310274 E: info@beecehnhill.co.uk W: beecehnhill.co.uk

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Sheep Farming

Sheep are important to the organic system at Beechenhill, at the moment we do not own any sheep but provide grazing for a neighbour's sheep for a short time.

Why keep sheep?

Sheep are particularly useful for keeping the land in good order as they eat neatly and enjoy ragwort, a problematic weed.



The sheep and lambs are numbered to make sure that the pair stay together

Why are sheep often covered in coloured splodges in winter?

The ram (tup) is put with the ewes in November. The ram's belly is marked with raddle, a sticky paste that will mark each of the ewes he serves. Every couple of weeks the colour of raddle is changed. This way the farmer can work out more or less when each ewe is due to lamb. At other times of year the farmer marks his sheep with a special colour or shape to identify their sheep (the Beechenhill sign is a blue dot on the shoulder).



Sheep marked with raddle

When are lambs born?

Lambs are born at Beechenhill during April. Most ewes give birth to one or two lambs and can look after them successfully. If a ewe has three lambs, more difficulties can arise. Sometimes she can't feed them all or protect them at night from fox or badger attack. If lambs are orphaned they are hand fed with special reconstituted dried milk until a suitable ewe can adopt them.



Helping a lamb being born.



Ewe licking her second lamb, her first lamb is orange coloured, because of the fluid in the womb.

Who buys Beechenhill lamb when it is produced?

Lambs at Beechenhill are sold for eating when they are four to five months old and weigh 38 to 42 kg. At this stage they are quite big and almost adult looking. Before the farm was organic the lambs were sold in the cattle markets to butchers or other farmers. Beechenhill Organic lamb is butchered locally and sold to local people and guests at the farm.

Peak District sheep graze on open land with no fences, is that safe?

Sheep on open moorland are 'hefted', that means that over many generations they have learned to stay on their own patch. In the National Park many public roads pass through unfenced fields. Sometimes these unfenced areas are a high proportion of the land owned or rented by a farmer, so they have to use them for grazing. Walkers will not be at any risk from the sheep but the sheep may be at risk from food or rubbish disgarded and unfortunately lambs are occasionally killed by cars.

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Shearing

When, who, how and why?

Sheep are sheared in June each year. At Beechenhill Farm a local farmer used to come to shear the 20 or so sheep. The sheep are gathered in a shed and one by one the ewes and the ram sheared while the lambs watch.

Shearing starts on the sheep's tummy, going up to her chin, then over her shoulders and down her back. The fleece comes off in one piece; it is rolled neatly and placed in a big bag called a sheet.

Wool has to be removed to make the sheep feel comfortable and reduce infestation by parasites. Wool is a commercial product sold by farmers to businesses who make fabric, carpets, clothing and other products. Sheep farmers producing wool belong to the British Wool Marketing Board. This organisation collects all the wool, stores it and auctions it to companies. The British Wool Marketing Board tries to ensure a consistent supply of wool at a consistent price.



The shearer clips the sheep's tummy, then over her shoulders and down her back.



Afterwards, the sheep re joins the flock and the fleece is stored in the 'sheet'



Many factors affect the wool market:

- The colour of the sheep affects the value of the fleece. White wools can be dyed easily, making them more versatile but black or grey wools are of limited use for dyeing.
- The quality of wool produced depends on the breed of sheep; in the UK there is a high percentage of hill sheep, some of which have coarse, low value wool. New Zealand and Australian sheep are mainly lowland breeds producing fine, white wool.
- New Zealand and Australia produce enormous quantities of wool therefore the strength of the pound sterling against the New Zealand/Australian dollar is critical in setting a UK price.
- The Japanese market for UK wool has recently increased significantly in the carpet and futon manufacturing sectors.
- The trend towards high tech, easy care fabrics like synthetic fleece and micro fibre has reduced the desire for woollen clothing, which needs a certain amount of extra care. Nylon and mixed synthetic fibre carpets are cheaper than woollen ones, although often not of as high quality or as hard wearing.

Is the wool profitable?

It costs £1 to have a sheep sheared by a neighbouring farmer. A local haulier takes the wool to the British Wool Board at Bradford. Here it is weighed and graded and payment is made according to the grade. Wool price varies from grade to grade, Beechenhill wool makes about 50p per kilo. The average weight of a fleece is 3kg. At a price of £1.50 per fleece the wool makes a small profit.



The sheep investigate the chicken house.

Is organic wool a more valuable product?

Organic wool is sold at a premium if a large enough amount is produced. At Beechenhill the wool from 24 sheep is not enough so is given to the shearer as part of the fee. The lack of profitability is one reason why sheep are not currently kept at Beechenhill.

Hens

The Hens

There are usually about 4 to 6 hens at Beechenhill. Breeds vary, sometimes Bluebells, Rangers, Leghorns and Sussex. They lay one egg a day for part of the year.



Rob and Henna

What do hens eat and drink?

The Hens are fed organic layers pellets. They have access to this all the time, but seem to prefer to scratch about catching bugs, worms and even mice! They make a daily tour around the farm buildings and garden.

The hens are given fresh water everyday, but again, they quite like to fend for themselves and drink from puddles, ponds and flower pots.

Are the hens treated with any medicines or drugs?

They are wormed about once a month with a special cider vinegar preparation, allowed in organic farming. In the summer the hens and their house can become infested by red mite so another permitted preparation is used to treat that.



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Field Work

B

Fields

A pasture is a field for grazing.
A meadow is a field for mowing.

E

Routine field work

E

- **Manure Spreading:** Composted manure is spread over all the pastures and meadows in March and April.

C

- **Chain Harrowing:** A chain harrow is a square metal net that acts like a rake. The fields are chain harrowed in April and May. Harrowing rakes out the dead grass and lets air into the roots. In spring many distant fields look striped as a result of chain harrowing.

H

- **1st cut Silaging:** In June the meadows are mown for silage.

E

- **Manure spreading:** Composted manure is spread on the meadows immediately after silaging.
- **2nd cut Silaging:** Meadows cut again in August.

N

- **Topping:** During summer the pastures are topped, this means the straggly top growth of weeds and grasses is chopped off to stimulate re-growth.

H

Which weeds cause problems and why?

I

- **Ragwort:** Poisonous to cattle and horses, produces a lot of wind blown seed and each plant takes up a lot of space, moisture and nutrients; often seen on road verges.

L

- **Nettles:** They grow in patches in fertile soils therefore killing large areas of grass.

L

- **Creeping thistle:** Plant spreads by roots and by seeds, very easily. It takes over and kills large patches of grass.

F

- **Spear thistle:** Grows very tall, produces lots of seed and is very prickly. No animals will eat it and it takes over.

A

How do you control the weeds?

- **Ragwort:** Sheep enjoy eating ragwort when it is young and tender and they will also eat the flowers. Must be pulled up before it seeds in July/August (when the plant is fully grown.) The dead plant, once pulled up is poisonous for cattle and horses.

R

- **Nettles:** Mow or scythe in late spring or early summer.
- **Creeping thistles:** Keep them mown to weaken and stop

M



Topping



Ragwort



Spear thistle



Dock

- them seeding. They can be hoed just below the soil surface.
- **Spear thistles:** Dig them up or 'spud' them (chop them off just below the soil level.)
- **Docks:** Good composting can kill the seeds with heat. The plants must not be allowed to seed, they should be dug up or mown.
- **Organic Dock Control** In a healthy organic system a natural control can take over! *Gastrophysa Viridula*- the iridescent dock beetle.



A spear thistle starting to grow

Our Organic Jewel! The Iridescent Dock Beetle



Eggs of *Gastrophysa Viridula*



Gastrophysa Viridula beetle



Dying dock leaf eaten by beetles

Manure Spreading

Manure is a mixture of animal dung and straw.

Where does the manure come from?

Cows are kept in a large shed from October to May. They can move about freely in a loafing area and sleep and rest comfortably in a large area deep with straw. This is called a loose housing system. More straw is put in each day to keep the top surface dry and clean. After about 6 or 8 weeks the cows are quite high up on top of the layers of straw and manure. At this stage the shed is cleaned out and the manure mixture is piled up and composted.

Why is manure composted?

Bacteria break down the manure; this process produces heat that kills the weed seeds and pathogens (disease producing organisms). To do this the bacteria need air so the manure pile has to be turned every month or so. Composting improves the smell and soil conditioning qualities of the manure. Plants can access the nitrogen in composted manure quickly and easily.

Why is manure spread on the fields?

Composted manure is a valuable source of fertiliser and humus, and it's free. It encourages soil organisms and good bacteria, which help to improve and maintain the condition of the soil.

When is manure spread on the fields?

In an organic system manure is spread when the soil bacteria are active, between April and October. It is such a valuable resource that it mustn't be wasted. If it were spread in winter when the plants are not growing, it would be washed away before the plants and

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soil bacteria could use it. Spreading manure at the wrong time can also lead to pollution problems, if manure is washed into streams or rivers.

E

How could manure cause pollution?

If manure is washed into streams or rivers, it provides too much nutrient, which encourages inappropriate plant growth (algal blooms). These plants take too much oxygen from the water starving the natural plants and organisms of oxygen and killing them.

E



C

H

Tractor transfers manure from compost pile to muck spreader which spreads it on the fields.

E

Silaging

N

What is silage?

Silage is preserved grass.

H

The cows eat grass from April to October. Extra grass is grown during the summer for use in winter. Until 1940s farmers preserved grass by drying it in the sun, baling and storing it. This is called hay. New advances in machinery and the need to increase production led to the development of silage. Silage is grass; cut, wilted, gathered, and stored. Hay making was problematic because it was so dependent on the weather- damp hay goes mouldy. The moisture content of silage is not so critical; it can be made in almost any weather, although the dryer the better.

I

L

What is the effect on wild flowers?

Silage is made from grass cut at the end of May and early June, around flowering time, so later flowering species and grasses struggle to reproduce. To make hay grass is cut in July. This is after most grasses and wild flowers have spread their seed. Therefore hay meadows are usually rich in species.

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Farming at Beechenhill © Sue Prince Beechenhill Farm, Ilam, Ashbourne, Derbyshire DE6 2BD
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Silage Recipe

Equipment required to make Beechenhill silage:

- 1 Contractor
- 1 Tractor with mower
- 1 Tractor with baler
- 1 Tractor with wrapper
- 1 Tractor and trailer to move and stack bales

How to make Beechenhill silage

First cut your grass

Allow the grass to wilt for one day in dry weather (if possible)

Gather the grass and roll it into a bale, using string or net to hold it together

Wrap the bale tightly in plastic film to make it air tight

Store

Use more netting to protect wrapped bales from any damage (rats, birds etc)

To Serve

Remove the plastic film and the netting

Place silage in feed ring

Enjoy!

Silage Making



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Walling

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Why are there so many dry stone walls in the Peak District?

The southern part of the Peak District lies on carboniferous limestone, the northern part lies on grit stone. When the first settlers cleared small areas of land for cultivation and grazing, they piled the surface stones up around the edges to form a rough boundary. Evidence of these stone fields can still be found on the eastern moors.

E

Stone has always been a handy resource for Peak District farmers. Although much walling stone was imported on to farms from local quarries, there are many small stone pits found in farmland where stone was dug on site.

C

Gapping

Every year walls tumble down because of heavy rain or frost; animals sometimes knock them over and occasionally ramblers lose their way and inadvertently damage walls by climbing over. The holes in the walls are known as gaps, and mending the gaps is known as gapping. A four-metre gap takes about one day to mend. Grants for wall restoration used to be available from the Peak District National Park Authority (PDNPA).

H

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A wall gap before and after mending

H

Wall Building

A local contractor is employed to build walls at Beechenhill. A wall is built using large foundation stones at the bottom, then layers of lime stones with a rubble (stones smaller than 50mm²) filled middle. Each layer has to be packed firmly with rubble before the next is placed on top. A wooden 'A' frame is used to keep the angles correct. The rounded stones on top of a wall are called capping or coping stones. They are sorted and laid out early.

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It took about 3 months to build the 180 metre wall along the farm drive. There were PDNPA grants for rebuilding dry stone walls and constructing new ones, these are no longer available.

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Farm drive before and after the wall was built

Gate Posts

Traditional gate posts were made from large slabs of natural stone, with drilled holes and fittings secured by the use of molten lead. Unfortunately many of these have broken over the years. Instead there are various alternatives now available. Farmers can buy metal or wooden gate posts or cast their own out of concrete.



Wooden gate post



Concrete gate post



Stone gate post

Stiles, Pop holes and Badger Creeps

Stiles are built to get access from one field to another. Most of the stiles at Beechenhill are squeeze belly stiles.

There are also a number of holes built into the walls. These pop holes and badger creeps are little gaps which allow badgers and other animals to pass through, but not cows. Without pop holes badgers could easily knock walls over while exploring their territories.

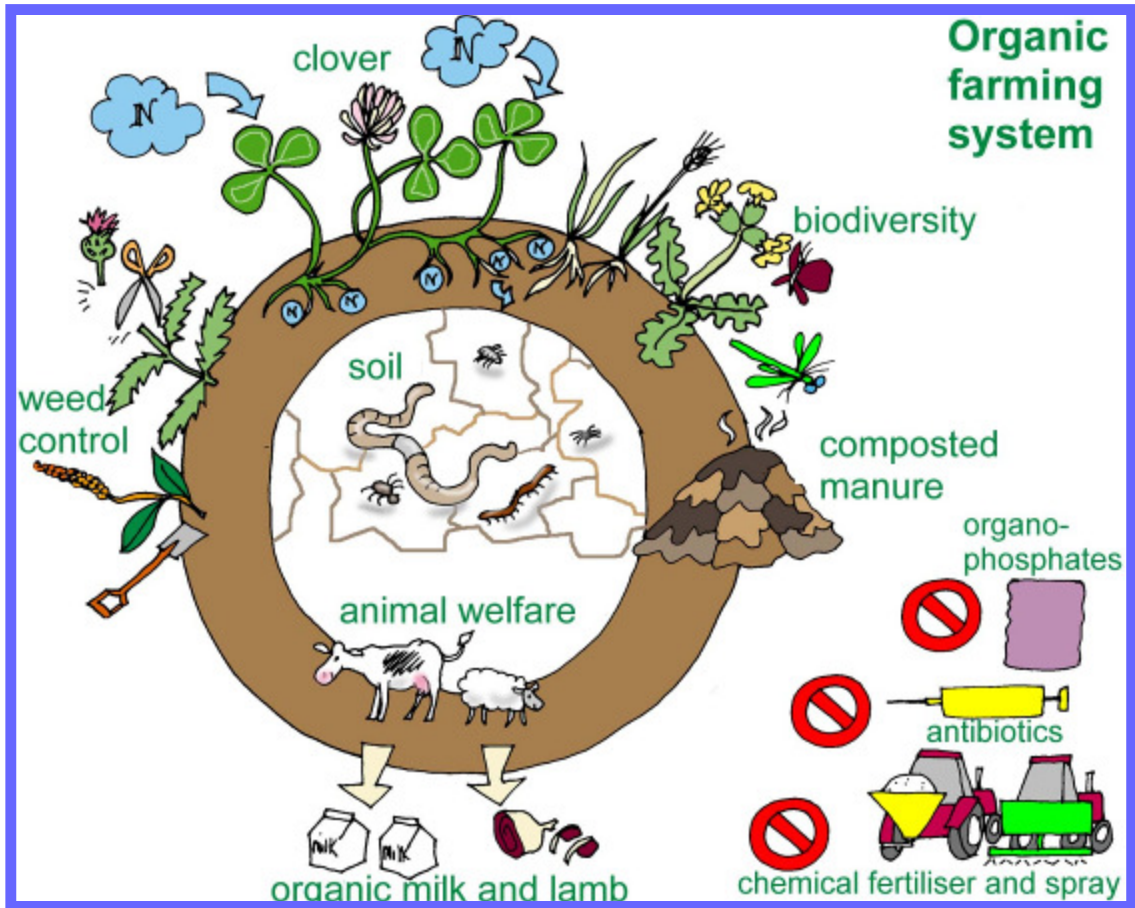


Squeeze belly stiles



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Beechenhill's organic conversion diary 1990 to 2000

1990-95: Stopped using organophosphates on the farm. Organophosphates are very powerful nerve agents, used in many products, sheep dips, wormers, insecticides etc. Too many tales of farmers badly affected by sheep dip. Discovered that domestic chemical fly strips seem to cause unpleasant symptoms- they are organophosphate based too.

1997: Heard Peter Day on BBC Radio Four's 'In Business' talking about globalisation - how ultimately, things will be made wherever in the world it is cheapest to produce. Suddenly realised that means milk aswell! He was actually citing white goods like fridges and washing machines, but the principle will surely relate to the white stuff too!

9 August 1997: Met an organic farming lecturer at a friend's, spent the whole night discussing the possibility of converting Beechenhill. Very boring for the other guests, but riveting for us. Decided to investigate further. Rang MAFF about organic milk production.

September 1997: Phoned Organic Help Line and booked free half day of expert advice to see if it will be feasible to convert farm.

2 October 1997: Had visit from organic adviser. She looked at the whole farm and answered all our questions. She also had lots of ideas and we were able to arrive at an achievable plan. Very interesting, worthwhile exercise - it looks like it will be possible!

6 October 1997: Travelled down to Step Farm, near Oxford, for an organic farm walk. Learned all about OMSCO -Organic Milk Suppliers' Co. During the farm walk we were able to discuss practical issues with fellow visitors, got advice from them on sowing clover into existing pasture. The visit introduced us to the practical reality of organic farming, and the fact that it doesn't really matter if there are a few weeds around.

19 March 1998: Had 2nd free advice visit, this time from organic adviser with financial expertise. He took us through the figures very thoroughly, showed us how to prepare conversion plans and registration info for the Soil Association and how to apply for the MAFF Organic Aid Scheme. Looked around for organic feed companies, could only find one.

20 May 1998: Took soil samples from all fields, 6 or 8 samples per field, packed into boxes, sent off for analysis. Results showed that soil had become quite acidic so whole farm was dressed with lime. We were advised to spray herbicide on some fields to reduce the dock problem before conversion. This was partially effective.

5 June 1998: Registration forms went off to Soil Association for conversion from 1st June 1998. Stopped using routine antibiotics on dairy cows. It turns out that the documentation we had prepared for SA was excessive, we had got so paranoid about supplying details that we prepared and sent off too much! We needn't have got quite so panicky!

Organic Conversion:

- Farm is registered with the Soil Association
- 28.15 ha (75%) in starting conversion process June 1998 (land surrounding farmstead)
- 8.85 ha (25%) to start conversion process June 1999 (land across road)
- Mixture of red and white clover sown in some fields- summer/autumn 1998, ongoing in 1999
- Dairy herd of 45 Friesian Holsteins, 40 followers- to be reduced to 15/20
- 35 sheep- Mules lambing in April
- Milk currently sold to Milk Marque, farm registered with OMSCO
- Plans for slurry store by winter 1999

1 July 1998: After 2nd cut silage, field 6 (Bitchen Hill) was sown with clover, did it by hand with an old fiddle-drill. Did other fields with the old fertiliser spreader adapted to cope with tiny clover seeds. Clover seed varieties included Donna and Menna. Spear thistles were a big problem in field 13 so Terry spent 5 days digging them with a spike.

23 July 1998: First Soil Association inspection, a long and tiring process. Everything was examined in great detail. All the field data sheets, medicinal records, animal records including any animals that may have any risk of being BSE contacts were all checked and actions agreed. Creeping thistles were scythed in field 8. Lamber Close (16) was topped with the old forager (silage mower).



The 1st Elm Farm visit to Beechenhill

13 August 1998: Visited Elm Farm Research Centre to see their composting system for domestic waste from the locality; this is collected (from little green bins) stored, turned, composted and spread on fields. They are paid £12 per ton to avoid landfill. At the end of our visit we were asked to be one of their network of demo farms.....said yes.

Autumn 1998: White clover was sown in all silage fields south of the road. The clover mixture included Donna and Menna.

May 1999: Sprayed docks in the three fields across the road (Hedge Close 1, Gibbet Moor 2 and Horse Park 3), these fields will enter conversion on 14th June 1999. Spear thistles in field 13 were dug again.

July 1999: Limed and sowed clover in fields 4 and 5. Having gathered extortionate quotes (in the realm of £50K) for building a slurry store, decide to re-examine the problem. Eventually decide to run a loose housing system. Better welfare conditions for the cows and makes muck much easier to handle. Will need to raise roof of cubicle shed for ventilation and head space for cattle and machinery. At the same time, could roof over loafing area to reduce amount of rainwater that needs scraping up. Quote for this work - approx £18K.

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August 1999: Red (Merviat 2.5kg/ha) and white clover (Alice 5kg/ha) sown into fields across the road, red did not do very well. We tried red clover because it is higher yielding but it is not so persistent (it only lasts 2 or 3 years), and is usually better cultivated in rather than sown on to pasture. The weather was very dry after sowing. Genetically modified organisms (GMOs) became a very worrying

E



Cubicle shed before the roof was raised



Roof being raised



Cows in loose housing

E

C

issue for organic farming.

September-November 1999: Conversion of the cubicle shed. The roof was raised 1.3 metres and the cubicle shed and silage shed were joined by a three-bay extension to enable the cows to eat under cover and reduce the amount of dirty water. The old silage shed became the new muck composting shed. From now on silage would be big baled.

H

December 1999: At Beechenhill we had to get "GMO free" declarations for all animal foods. OMSCO set up mentoring groups; meeting other OMSCO producers was very useful.

E

April 2000: We visited Weleda, a homoeopathic medicine company in Ilkeston, Derbyshire. Organic group had a talk from a homoeopathic vet, explained what to look for when treating homoeopathically, bought a couple of books.

N

1 June 2000: Beechenhill became an organic farm at last!!!! Gathered our first crop of organic big bale silage. The cows started on their organic diet (until now the cows could eat ordinary GMO free concentrated food): from 1st June their diet must be 90% organic. Through the organic group we heard about and joined an organic feed buying group purchasing food from a mill at Congleton.

H

September 2000: Milk became organic after 3 months of organic feeding. Sold the 21-year-old Leyland tractor and purchased a 5-year-old Zetor tractor with loader strong enough to lift the silage bales.

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Principles of Organic Farming

- To work as much as possible within a closed system
- To maintain the long term fertility of the soil
- To avoid all forms of pollution
- To produce foodstuffs of high nutritional quality and sufficient quantity
- To reduce the use of fossil energy
- To give livestock conditions of life that conform to physiological needs and humanitarian principles
- For agricultural producers to earn a living
- To use appropriate technology
- To develop decentralised systems

Management Systems Comparison

A comparison of a conventional management system and an organic management system at Beechenhill Farm

Subject	Conventional	Organic
Winter cow accommodation	Cubicle housing	Straw yard and loafing area, improved animal welfare
Medical treatments	Routine anti-biotics-dry cow tubes. Problems treated with anti-biotics. Milk withheld for 74 hours Wormer, Ivomec used	No routine anti-biotics used, anti-biotics only used to respond to serious problem. Milk withheld for minimum 14 days. Uddermint, homeopathy, seaweed meal. Routine health visits by vet. Worms avoided by careful grazing
Food	Maize gluten, hipro soya, rape seed, maize, molasses, wheat, sunflower meal, brewers' grains, breakfast cereal, salt, minerals, calcium carbonate, veg fat coating £130/tonne	Organic wheat, organic oatmeal, peas, distillers' grains, linseed meal, prairie meal, maize gluten, molasses, calcium carbonate, salt, magnesium oxide, minerals £230/tonne
Fertiliser-manure	1 or 2 loads of slurry (liquid muck) spread every day from Oct to May	Muck from straw yards composted and turned for 3 months, then spread on fields when soil bacteria are active, March to Oct
Fertiliser-other	Compound fertiliser- 23N 10P 10K applied on 36 ha, spring and mid-summer, 500kg/ha, £60/ha Lime when necessary	Clover planted - it extracts nitrogen from the atmosphere, makes it available to grass. Clover naturally proliferates if not sprayed or fertilised. Lime when necessary.
Weeds	Sheep eat ragwort. Spray thistles, docks and nettles with systemic hormone weed killer.	Sheep eat ragwort also pull ragwort. Hand dig spear thistles and docks. Cut nettles and creeping thistles.
Sheep	Dip sheep in organophosphate systemic insecticide annually for sheep scab.	If a problem occurs, treat with organically permitted remedy.
Milk	Milk sold to Zenith, son of Milk Marque. Average 1999 price of 15p/litre. Subject to collection charges, seasonality and quality price variations.	Milk sold through Organic Milk Suppliers Co-operative (OMSCO). Flat price of 29.5p/litre, Membership fee of £395 deducted from first 3 month's milk cheques.
Rainwater	40% of roof rainwater collected for use in ponds and troughs	80% of roof rainwater collected for use in ponds and troughs

Soil

What is soil?

Soil is made from the breakdown of solid rock (by weathering or glaciation) and the collection of organic matter. The UK has a great variety of soil types, due to its geology, geography, climate, the effect of water and historical land-use. Soil is the layer on which plant and animal communities depend, and is the main repository of zoological and botanical remains and archaeological artefacts from previous natural and cultural environments. Soil is central to the hydrological cycle and determines land use options and practices in agriculture and forestry.



Soil is a living resource - a typical English lowland loamy soil will contain 25 tons of micro-organisms per hectare - including four tons of earthworms, ten tons of fungi, one ton of springtails, spiders, beetles and snails. Yet soil flora and fauna have not been considered worthy of inclusion in nature conservation or biodiversity strategies. (National Trust Strategy for soil)

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Climate Change and Sustainability

What is sustainability?

Sustainability has been defined as 'development which meets the needs of the present without compromising the ability of future generations to meet their own needs'.

In a nutshell:

We must treat the planet as if we are going to live forever.

How can we measure development?

Jonathan Dimbleby, writer, broadcaster and President of the Soil Association says:

"In November 2000 the United Nations published the 'Living Planet' report, an update on the state of the world's natural eco-systems and the effect that humans are having on them. It measured our consumption of food, materials and energy in terms of the area of biologically productive land or sea required to produce those resources and absorb the corresponding waste. This is called mankind's ecological footprint. The report concluded that 'at some time in the early 1970s humanity as a whole passed the point at which it lived within the global regenerative capacity of the earth'. Its authors estimated that today our ecological footprint is at least 30% larger than the Earth's biological capacity."



effect that humans are having on materials and energy in terms of sea required to produce those waste. This is called mankind's ecological footprint. The report concluded that 'at some time in the the point at which it lived within earth'. Its authors estimated that larger than the Earth's biological capacity."

In other words, humanity is consuming the world's resources at a faster rate than they can be renewed. The process is not evenly distributed across the planet. Those of us who live in the developed North are using up four times as many resources as those in the so-called developing countries of the South.

An example of humans producing more waste than the Earth can cope with

The UN report identified production of carbon dioxide as 'humanity's biggest overshoot of the Earth's natural capacity'. The Earth's atmosphere has a limited capacity to absorb this greenhouse gas. Globally the capacity is 12 billion tons of CO₂ per year, but we already produce twice that amount and are producing more every year.

The expert view is that we are experiencing the symptoms of global climate change, and that over future years it will have a devastating impact on life on Earth. In the words of the UN report, global warming is 'one of the gravest risks to humanity in the 21st century'.

Should we just give up then?

We must not give up, because the situation is reversible. We can change the future. Many ordinary people have learned about the threat to our world and have involved themselves in trying to make a difference. Over the last ten years political and environmental groups and industrialists have entered into debates and dialogue. Industrialists now realise that looking after the environment has become an important selling point for their products. A growing number of large businesses, worldwide, appreciate that to be financially successful they must have a good environmental performance, because we ordinary people are increasingly demanding it before we buy their goods.

We can all lessen own impact on the environment, whether by using our own resources more carefully or insisting that any companies we deal with look after the environment properly.

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Sustainability at Beechenhill

At Beechenhill we are trying to make sure that we consider sustainability in all decisions. Gradually as we replace equipment and change systems, we will try to introduce more sustainable versions. We can learn from many businesses and organisations demonstrating good practice.

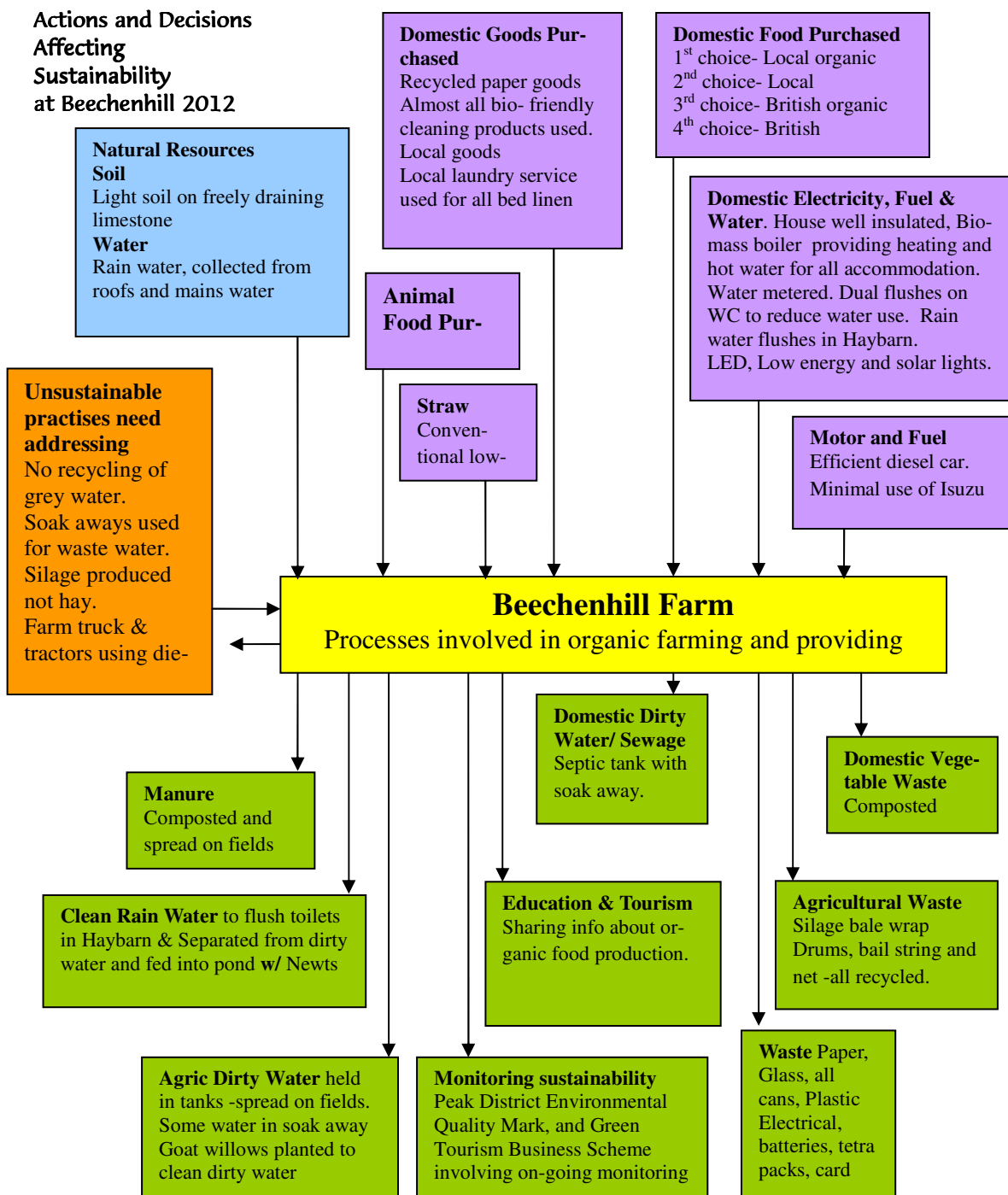
At the farm, tourism and art business, we are very pleased to have been awarded the Peak District environmental quality mark for 'our high standards of care for the environment in all aspects of management.' The tourism business has a Gold Award from the Green Tourism Business Scheme.



In 2009 and 2012 Beechenhill was Highly Commended in the global Virgin Responsible Tourism Awards. 2000 global businesses were nominated by guests and the put through a vigorous judging procedure.

In 2013 we won Gold in the Visit England Awards for Excellence and Green Hotelier 2013.

Actions and Decisions Affecting Sustainability at Beechenhill 2012



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Renewable Energy at Beechenhill

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The Pilot Light Project

The greening of farming and tourism in a protected landscape

E

Centralised energy solutions are appropriate where there are centralised populations, however rural areas have scattered and dispersed populations which would suit decentralised renewable energy solutions.

E

The Pilot Light Project seeks to explore innovative, practical and appropriate ways to address rural resource efficiency, economic pressures and reduce the carbon footprints of a farm tourism businesses in the Peak District National Park.

C

- To reduce the carbon foot print and increase the resource efficiency of Beechenhill Farm.

H

- To enhance the distinctiveness of Beechenhill as an ecotourism destination.

E

How does the biomass boiler work?

A 120kW wood pellet boiler with mini district main was installed to heat and provide hot water for all of the accommodation at Beechenhill, including Beechenhill Cottage, The Cottage by the Pond, the B&B (for 6), the Haybarn under floor heating, the dairy and all the private accommodation.

H

This has replaced two oil boilers, 3 storage radiators and six immersion heaters. It has reduced the carbon footprint of the farm from 41 tons to 22 tons. The wood pellets come from Wales. 1 tons lasts about 1 week and costs between £185 ton. Wood pellets are 90% efficient, wood chip is 60% efficient and logs are 30% efficient.

I

Reduced Carbon Footprint

In the three years since the introduction of the Pilot Light Project, the carbon footprint has reduced from 41 tonnes to 14.4 tonnes, including the impact of the 8kw solar PV installation at the end of November 2011.

L

The project is working along the carbon hierarchy to avoid, reduce, replace, offset.

As well as insulating and draught proofing, we have invested in and introduced:

F

Low energy lighting

Natural sun tunnel

120kw biomass (pellet) boilers and mini district main

Solar PVs 8Kw

Under floor heating

Rayburn cooker conversion

Induction cooker

Electric bikes

insulating lime plaster

A

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M



Installation of boiler above and cylinder below



Buffer tank holds a reservoir of 4000 litres of hot water



Natural sun tunnel

1984-2010 Beechenhill Farm Finances- Subsidies and Grants

In 2007 all subsidies changed due to the European review of the Common Agricultural Policy 2005-11. From schemes based on the number of animals kept (headage) they changed to schemes based on the amount of land held- the new scheme is called Single Farm Payment (SFP).

Farmers will get a cheque for the land they farm regardless of cropping or stock reared. The government hopes that this will encourage farmers to get closer to the market, produce goods that give them a profit and improve the environment. To help the transition between the old system and the new SFP, amounts paid over the period 2005 to 2011 will be partly based on the historic payments farmers received in previous years. In 2012 all payments will be area based.

The government has split England into three zones- Lowland, Severely Disadvantaged Area (SDA) and Moorland.

This was bad news for the upland regions of England- many National Parks and special landscapes are Severely Disadvantaged Areas where the farmers received £100 less per ha than their lowland competitors, making them even more severely disadvantaged. The government tried to alleviate this by introducing an Uplands Entry Level Scheme (UELS).

There are additional payments for environmental works; Entry Level Scheme (ELS) £30/ha, all organic farms will get £30/ha extra. Higher Level Scheme (HLS) will be available for farms with special environments. The UELS is up to £60/ha.

Beechenhill 2011 2012

Single Farm Payment (SFP)	£6000 per year
Organic Entry Level Scheme (OELS)	£2000 per year

Organic Aid Scheme 1998-2004 (No longer open)

(Beechenhill entered conversion June 1998, organic status gained June 2000)	
On improved grassland (re-seeded, fertilised)	£350/ha over 5 years*
On unimproved grassland	£70/ha over 5 years
Organic training grant- per applicant in 1 st year	£300

1990-2003

Tree planting, environmental work- MAFF/Europe 5b	25-80% grant aid
Wall beside drive- Peak District National Park/MAFF/Europe 5b	80% grant aid
Farm Trail- Peak District National Park /MAFF/Europe 5b	50-80% grant aid
Tourism Business Development inc. ICT - MAFF/Europe 5b	44-50% grant aid

1984-1990

Conversion of buildings into holiday cottages- MAFF	33% grant aid
Tree planting, walls, troughs, gates, tracks- MAFF	33% grant aid
Trees planted along drive- Staffordshire Moorlands District Council	free

Organic- conventional comparison 2012

Conventional cow food	£260/tonne
Organic cow food	£380/tonne
Conventional fertiliser, seeds, sprays, medicines, vet	£1000/month
Organic seeds, homeopathic medicines, vet	£175/month
Conventional system use of straw	£400/month
Organic system use of straw	£700/month

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Frequently Asked Questions

B

How big is Beechenhill Farm, and how many fields are there?

Beechenhill is 92 acres (37.2 ha) in 16 fields at an altitude of around 1000 ft (300m) above sea level.

E

How many miles of stone walls are there on the farm?

There are 4.3 miles (7km) of stone walls.

E

How much are the stone walls worth?

At today's prices it would cost £175,000 for all the stone and £175,000 to build all the farm walls, a total of £350,000.

C

How many cows are there and how much milk do they produce?

There are 35 Friesians, Swedish Reds and Ayrshire dairy cows, each cow produces about 20 litres a day at two milkings, 6-7.30am and 4-6.00pm

What time does the farmer get up?

5.15am, then he has a cup of tea and listens to the farming programme, before going out to milk.

Does milking happen twice every single day, even Christmas day?

Yes, it gets the farmer out of the washing up on Christmas day!

How much fat is in milk?

4%, whole milk is 96% fat free.

H

How much is a farmer paid for milk?

The 2014 conventional milk price to farmers is 30-35p per litre. The 2014 organic milk price to Beechenhill works out at about 40p per litre.

Why do cows make milk?

Cows make milk to feed their calves, so they have to have a calf before they can produce milk.

E

How old are cows when they have a calf?

Cows are 2yrs 3 months when they have their first calf, then they have one every year.

What happens to the calves?

Female calves are kept on the farm eventually to join the milking herd.

Male calves are sold.

N

What do cows eat in winter?

From Oct to April cows live inside, they eat silage (preserved grass) and concentrated cow food. In June half the farm is mown for silage, a second cut of quarter of the farm is made in August.

Why don't you have a bull any more?

Because a bull is difficult to find space for on a small farm. It is easier, safer but more expensive to use AI.

H

How many sheep are there at Beechenhill?

There are no sheep owned by Beechenhill at the moment however there may be variable number of neighbour's sheep depending on the time of year.

I

What do sheep produce?

Sheep each produce 1 to 3 lambs worth £70/75 every year and a fleece worth £1.50 (it costs £1 to shear a sheep). A fleece makes 3 jumpers.

Sheep don't make very much money, why keep them?

Sheep are very good for the land; they help control certain weeds, in particular, ragwort.

L

When is lambing?

Lambing starts in April, lambs are sold in August/September.

L

Are all the animals on the farm females?

No, there is Gem the dog and usually a few male calves.

If you did get a bull, would he have to be organic?

No, a single male animal could come from a conventional background but would then be farmed organically.

F

How old is Gem?

Gem the sheep dog was born on 5th April 2012, he came to Beechenhill in July 2012.

A

What sort of dog is Gem?

He is a Border Collie, but instead of being black and white he is Blue Merle colour.

R

How old is Hatty the Jack Russell?

Hatty was born in June 2009.

M



Glossary

ADAS	Agricultural Development and Advisory Service previously part of MAFF now a private consultancy
AI	Artificial insemination
Anthelmintics	Drugs used to remove parasitic worms from animals
Ark	A moveable, often triangular, shelter for pigs or poultry
Battery cages	Cages, usually metal, for housing hens, not used in an organic system
BCMS	British Cattle Movement Service
Biological control	The control of one organism by deliberate use of another
Break crops	Crops grown between periods of continuous cultivation of a main crop
Breeding season	Period when animals are sexually active
Brewers grains	Malted barley after liquid has been used for beer
BSE	Bovine Spongiform Encephalopathy, a fatal brain disease of cows
BWMB	British Wool Marketing Board
CAP	Common Agricultural Policy, the policy controlling all EC agriculture
CLA	Country Land and Business Association
Clean pasture	Pasture free from animal parasites
Concentrates	Bought in mixed compound animal feed
Conventional farming	'Traditional' farming since 1940, uses synthetic fertilizer, sprays etc
Cow	Adult female cattle which has had one or more calf
Culling	Removal of animals from a breeding population, usually because of old age or physical problem
DEFRA	Department for Environment, Food and Rural Affairs
Dry (cow)	Not producing milk
EC	European Community
EU	European Union
Enclosures	The action of surrounding land with a fence (converting common land into private land)
Ewe	Female sheep
Ewe lamb	Female lamb
Extensive system	System which uses a large amount of land per unit of stock or output
Fallow	Land in a state of rest
Farrowing	A pig giving birth
Fat lamb	A lamb ready for slaughter
Finishing	The feeding of cattle or sheep at a rate of growth which increases the ratio of muscle to bone to get the animal ready for slaughter
FMD	Foot and mouth disease
Fodder	Dried feed, e.g. hay and silage
Forage	Leafy crops that are grazed
Fossil fuels	Biological materials which have been subjected to long term geological effects e.g. oil, coal, natural gas and peat
Free range	A system of poultry keeping in which hens are allowed to range over a large area
FYM	Farm yard manure
Genetic engineering	The science of modifying the genetic constitution of plants and animals directly
Gilt	A young female pig having not had any piglets
Gimmers	Ewes 1 - 1½ yrs old
GMO	Genetically engineered organism
Greenhouse effect	Global warming due to build up of atmospheric carbon dioxide
Ha	Hectare 10,000 square metres
Hefted	Attached to a particular geographical area
Heifer	Female cattle which have not calved or have calved for the first time
Homoepathy	A therapeutic system in which diseases are treated with substances usually in extreme dilutions, which when given to healthy individuals, produce the same symptoms as the disease being treated
IFOAM	International Federation of Organic Agricultural Movements
Intensive system	Systems in which cropping is frequent and yields are high per ha or where stock numbers are high per unit area sometimes called 'factory' farming
Ley	Land temporarily sown to grass
LFA	Less Favoured Area

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Glossary continued

B	MAFF Meadow Milk Quota MLC MMB	Ministry of Agriculture, Fisheries and Food Field for mowing The amount of milk a farm is allowed to produce in a year, can be traded Meat and Livestock Commission Milk Marketing Board, farmer co-operative sold milk nationally from 1933 to 1994
E	Molasses Mulch Mule	Dark brown syrup, by-product of sugar production Material used to cover the bare soil between growing crops A breed of sheep
E	NFU Nitrogen fixation	National Farmers' Union Conversion of atmospheric nitrogen to plant compounds by micro-organisms in soil and root nodules
C	NMR NPK OF&G OMSCO OP Organic system	National Milk Records Nitrogen, phosphorous and potassium Organic Farmers and Growers Organic Milk Suppliers Company Organophosphate Farming using rotations, clover, no synthetic chemicals or routine anti-biotics
H	Ozone layer Pasteurisation	A layer of ozone found in the stratosphere, where it absorbs harmful solar ultraviolet radiation The partial sterilisation of a food, especially milk, by heating it to a specific temperature for a short period before rapidly cooling it.
E	Pasture Permanent pasture	Field for grazing An established plant community in which dominant species are perennial grasses, with few or no shrubs and no trees
N	Poaching Pullet Raddle	Damage to grass and soil caused by excessive animal treading in wet weather Young hen in first laying season A sticky coloured paste applied to a ram's belly at breeding time to enable served ewes to be marked
H	Re-seeding Rotation	Sowing seeds of grassland species to re-establish a ley The growing of a sequence of different crops repeated over a regular number of years
H	Rubble Ruminant	Stones less than 50mm ³ used for filling the centre of dry stone walls Animals with a complicated stomach of 4 parts, rumen, reticulum, omasum, abomasums, eg cow, sheep, deer
I	SA Serve Shelter belt	Soil Association Impregnate A plantation of trees providing shelter
L	Silage Slurry	Preserved grass Animal dung mixed with water and urine
L	Staggers	Medical condition caused by a lack of magnesium
L	Steer Stocking density	Castrated male cattle The number of animals per unit area of land
F	Store cattle or sheep	Animals grown slowly to just below their potential, they are bought to be finished
F	Stubble Suckler herd Topper	That part of the crop left above the ground after harvesting Beef cattle where the dam suckles its own calf, another calf or several calves Tractor mounted mowing machine
A	Tup UKROFS UHT	Male sheep, ram UK Register of Organic Foods Standards Ultra-high temperature, a method of pasteurising milk using high temperature (270°F) for not less than one second
R	Weaning Wether	Removal of young mammals from their source of milk Castrated adult male sheep
M	Zero grazing	Where grass and other forage is cut and carried to the animal



Common spotted orchids and daisies at Beechenhill

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Terry, Gabby, Alex and Rob Gray of Beechenhill

From the PDNPA

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Ken Parker
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Jeff Winston

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Chris Clark
Malcolm Clifford
Tina Heathcote
Linda Hack of Dovedale House
John Malley and Emma Johnson of the National Trust, Ilam
Angie and Steve Hipkin
The Hurst family
Liz Clarke



Margaret

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*'The farmer will never be happy again
He wears his heart in his boots.
For either the rain is destroying his grain
Or the drought is destroying his roots.'*



Terry's tractor bought in October 2006
is it as clean today?