

RUSHALL FARM FACT FILE

[Introduction](#)

[Physical Features](#)

[Staff and Machinery](#)

[Land Use](#)

[Rotational Farming](#)

[Set-a-side](#)

[Stewardship](#)

[Woodland](#)

[Animals](#)

[Suckler Cows](#)

[Sheep System](#)

[The Principles of Organic Farming](#)

[Local History Study – Rushall Farm in Bradfield, Berkshire: 1241 - 2004](#)

Introduction

Farmer: Mr J.Bishop

Landowner: W.Cumber & Son (Theale) LTD.

Address: Rushall Farm

Scratchface Lane

Bradfield

Berkshire

RG7 6DL

Grid Reference: SU 589726

Size: 422 hectares (1 hectare = 100m x 100m or 1046 acres) includes 67 ha (165 acres) of park land on the Englefield Estate and 40 ha (100 acres) of woodland. Rushall began farming organically in July 2000. Rushall farm is Soil Association registered as organic.

Tenancy: John Bishop is the manager of Rushall Farm for W Cumber & Son (Theale) Ltd. About half the land is owner occupied, the rest is share farmed, tenanted, under a farm business tenancy or an annual grazing agreement. The farm owner, William Cumber, lives on the main farm at Marcham in Oxfordshire, Manor Farm. This 1500 acre farm recently sold a dairy herd which was milked robotically and a large pig unit. It has retained a small herd of Gloucester Old Spot pigs. Manor Farm runs a large beef herd and finishes all of Rushall Farm's beef animals. A new chicken unit of approximately 6000 birds produces free range eggs for Waitrose. Their main core business is growing cereals on over 1000 acres. They have a small farm shop

The Current Economic Climate: Rising world population and demand for food has strengthened all commodity prices. The statement in 2006 by Margaret Beckett that as a trading nation we did not need to worry about growing our own food is in the distant past. Politicians are now talking about food security, sustainable production systems, crops for biofuels and farms for energy harvesting, Purchases of food in the shops has remained at 9.5% of the average person's disposable income in spite of the recession. About 1% of that finds its way back to the producer. At Rushall Farm income for lamb, mutton has decreased as lambs have taken a longtime to finish due to the poor weather and there is now a glut of lambs on the market. The price of wool is much higher than 5 years ago. Prices for organic crops have risen

by 25% as a result of lower yields from the 2012 harvest. Conventional corn prices have increased again this year but quality has been very poor. High fuel prices continue to push up costs of production. Fertilisers, pesticides and the cost of new machinery for conventional farmers has risen substantially. The single farm payment is still absolutely crucial for farming businesses.

Physical Features

The farm is located in the Pang Valley part of the North Wessex Downs Area of Outstanding Natural Beauty. It occupies land stretching north from the river Pang between Bradfield and Stanford Dingley. There are some steeply sloping areas.

Soil types

There are many different soil types here. These include rich, wet alluvium immediately beside the river, loams, gravels, sands and clays. Beneath all of these soils you will find chalk. An exposed chalk face is Berkshire's first RIGS (regionally important geological site). It is one of only two places in the country where the K-T boundary is visible (this is the point 65 million years ago when the mass extinction of the dinosaurs took place). Analysis of the chalk at Rushall Farm from this period shows an iridium peak. Iridium is only found in large amounts in meteorites which adds weight to the impact theory as a mechanism for the extinction of the dinosaurs.

Altitude

Altitude ranges from 55 – 115 metres above sea level.

Rainfall

Rainfall is typically around 660mm per year. However in the last few years we've seen a change with very dry spells being interspersed with heavy downpours. Warmer winters were also producing more open (outdoors) grazing for livestock although the last 3 winters have been more in line with what was expected of the winter period 15 to 20 years ago. This has resulted in poor overwinter grass growth. The half of the area farmed which is in stewardship and predominantly wet is now a high fluke (parasite) risk area. This is a serious concern in cattle and sheep production. The last 3 springs (2010-2012) have been exceptionally dry with very poor grass growth and opportunities for hay and silage making. In 2012, from April onwards, wet and cool conditions prevailed making it the second wettest year in the UK since records began. In England it was the wettest year ever recorded and many farmers have stated that it was "the worst farming year ever".

Machinery

There are 2 fulltime workers at Rushall Farm including the manager. A third person works for half the year and a contract shepherd works 2 days/week. Extra staff is taken on for lambing

and during harvest. The farm works for a contractor during grass/maize silage making and during the harvest when we combine an extra 400+ acres. 600 tonnes of grain is dried and stored for 4 neighbouring farmers.

The vehicles which we have at Rushall Farm are listed below.

4 tractors include 2 reasonably modern John Deeres, an older John Deere and a Ford.

Mitsubishi Pickup

Clio van

Combine Harvester

An all terrain telescopic forklift or teleporter. This is a JCB 732

Balers, trailers, plough, seed drill and various harrows and other implements for working down the soil.

There is also an 800 tonne grain store and drier.

As farm profits are low at the moment the current policy is to repair existing machinery rather than renewing. This means that repair costs are accepted as being high but the cost of depreciation is very low (£7784 in 2007). The purchase of the new teleporter in early 2008 saw this figure rise to over £17,000 in 2008 (25% depreciation on £39,200) and dropped to £14,000 in 2009 and £10,000 in 2010, 2011 & 2012

Land Use

% Land Use on Rushall Farm		
	Pre-Organic (1998)	Post-Organic (2013)
Arable	600 acres	300 acres
Grazing	200 acres rotational or permanent grass	325 acres rotational or permanent grass
Stewardship	100 acres stewardship grass	325 acres stewardship grass
Woodland	100 acres	100 acres
2.47 acres is equal to 1 hectare		

Rushall Farm started to farm organically from July 1st 2000. We were able to sell our produce as organic from the 1st of July 2002 (conversion to organic land takes 2yrs). A further 32 hectares completed conversion in 2009.

The approximate figures above demonstrate the changes in land use since going organic. Essentially the land has changed from being 60% arable to 60% grazing (more clover & grass leys). This change reflects the need to increase soil fertility through the use of nitrogen fixing plants such as beans and clover. Animal manure from the grazing livestock is also an important addition to sustainable production in an organic system. The amount of pasture on the farm has also risen as a way of providing safe parasite free grazing for the livestock. Low stocking rates are essential in organic livestock systems. Because of a long-term reduction in the price of

cereals both pasture and land under stewardship has become more available at low cost. Although in the case of stewardship land appropriate management systems are not always easy to work out because of the quality of the land.

Rushall Farm has relied on organic grassland on Englefield Estate to overwinter pregnant ewes and Manor Farm Marcham to finish lambs on clover leys. Both are no longer organic and so could not be used from February 2011. Because this land is no longer available it has necessitated changes to how we finish lambs and overwinter ewes resulting in the planting of forage crops and planting spring wheat rather than winter wheat.

Rotational Farming

'Crop rotation' is the practice of regularly changing the type of crops grown in a field. Alternatives might be 'continuous cropping' or 'permanent grazing/grass'. Rotation helps combat problems like pest build up and fertility loss which happen with continuous cropping. It is therefore particularly important in organic system where we need to maintain soil fertility which we do through growing beans, adding manure and clover (an essential ingredient) in the leys. At Rushall farm we use both White and Red clover. White clover self seeds and can be found in a ley for many years. Red clover is very productive over 2 years. It is a bulkier plant with high protein content which makes it very good for silage. However you shouldn't feed it to ewes about to be tupped (mated with the ram) as it contains oestrogen which prevent ovulation thus making it difficult for them to conceive.

Crops that we grow at Rushall include:

wheat (for milling into flour, fetching £300/tonne in 2008 , £250/tonne in 2009, £188/tonne in 2010, £250/tonne in 2011, £265 in 2012, £320 in 2013)

barley (for malting, fetching £300/tonne in 2008 & £250/tonne in 2009 and £170/ tonne in 2010, £230/tonne in 2011, £230 in 2012, £270 in 2013)

oats (for porridge etc., fetching £275/tonne in 2008, £200/tonne in 2009 and £124/tonne in 2010, £200/tonne in 2011, £270in 2012, £280 in 2013)

beans (animal feed, fetching £300/tonne in 2008, £250/tonne in 2009 and £210/tonne in 2010, £260/tonne in 2011, £320 in 2012, £330 in 2013)

Feed wheat & triticale (a wheat / rye cross) (animal feed, fetching £265/tonne in 2008, £170/tonne in 2009 and £148/tonne in 2010, £240/tonne in 2011, £215 in 2012, £260 in 2013)

Red and white clover and grass leys (grazing, silage and hay) The crop and grazing rotation at Rushall Farm is generally over an 8yr period where 3 years of white clover is included or in very productive fields a 6yr period including 2 years of red clover.

The length of this rotation is restricted by the build up of weeds particularly Couch grass, Docks & Thistles. A summer fallow with frequent cultivation has now been built into the rotation. This is followed by a fodder crop of kale, turnips and fodder radish for finishing lambs from September onwards. Some marginal land where the soil is poor (heavy clay, sand or gravels) is

permanent grazing because it would be uneconomic to grow crops on these fields. The wet conditions in 2012 meant that frequent cultivations were impossible.

The need to overwinter 300 ewes, weed problems, reductions in soil fertility and the loss of organic pasture at Marcham and Englefield means that we are also planting stubble turnips following winter oats. We are also trailing ploughing some grassland into spring cereals rather than winter cereals which leaves the opportunity to feed sheep silage and concentrates thereby putting plenty of manure on the ground to feed the next corn crop. In both cases the “golden hoof” of a sheep would be tested. Essentially whilst the sheep were feeding they’d be manuring the ground and building soil fertility.

Set-a-side

Set-a-side was introduced by the government to reduce over production of food. Land that is set-a-side cannot be used for food production and these fields are usually left empty. In 2007 set-a-side was a minimum of 8% of arable land. Much of the set-a-side at Rushall Farm was some distance from the farm itself, near to the M4 motorway. In 2008 around 12% of our arable land was in set-a-side. Aside from receiving payments for not farming this land, the set-a-side scheme also benefits wildlife. Organic set-a-side can also be used as a time to clean up the field using a fallow. However in 2008 there was a worldwide shortage of grain and thus there was no requirement for set-a-side. This shortage resulted from poor harvests in the wheat belts of Eurasia and North America, an increase in demand from developing countries and also a change of land use from food production to bio fuels. In 2009 & 2010 there was again no requirement for set-a-side and this situation looks set to continue.

Organic Entry Level Scheme and Higher Level Scheme

The Higher Level Scheme (HLS) is an environmental scheme run by the government which helps to encourage environmentally friendly farming. Under this scheme the farm receives money from the government on a 10 year management agreement. We are already managing area under HLS for Englefield Estate. We have been accepted for a joint scheme with Manor Farm Marcham starting October 2011. The payments by the government are to compensate for the loss of income for the management of land to enhance the value of the land for wildlife, landscape features or the preservation of archeological sites, buildings and even old breeds.

64 hectares	Parkland conversion	(Englefield Estate)
48 hectares	Management of waterside meadows	(Englefield Estate)
22 hectares	Creation of Species rich semi-natural grassland	2012
6.5 hectares	Floristically enhanced 4 meter margins	2012
2 hectares	Bare fallow for ground nesting birds	2012
10 hectares	Creation of grassland for target features	2012
2 hectares	Creation of woodland	2012
2 hectares	Restoration of species rich semi-natural grassland	2012

1 hectare	Enhanced wild bird seed mix	2012
6 hectares	Maintenance of grassland for target features	2012
10 hectares	Brassica fodder crop followed by overwintered stubble	2012

This represents 40% of the land managed on Rushall Farm.

All the farm is in the OELS (Organic Entry Level Scheme) and we get £60 per Ha which is approximately £15,000. The HLS payment for the 40% of land mentioned above is approximately £20,000. 2012 is the first year we received this and so it hasn't been included in the 2011 income streams information (see below). As of February 2013 we haven't received this so the figures are unavailable.

Woodland

The 40 hectares (100 acres) of ancient woodland at Rushall farm has a management plan. This plan sets out the work that is needed in the woodland, e.g. clearing the large trees from certain areas and planting new ones. Due to financial cuts that were made across the farm, little management work has been carried out in the woods in recent years, which is disappointing in view of all the work done in previous years. We had hoped that farming organically would make more profit for the farm and that some of the money could be invested in managing the woodland again. Some work has been done in the winters of 09/10, 10/11, 11/12 to open up the canopy in areas to enable re-growth of the coppice. This was undertaken in conjunction with the Woodland Trust

Animals

Livestock numbers Pre-organic'99/'00 – Post organic							
	1999/2000	2006/2007	2007/2008	2008/2009	2009/2010	2011/2012	2012/2013
Ewes	650	800	780	750	800	780	800
Ewe lambs	130	150	180	175	170	190	205
Rams	20	20	20	25	22	15	15
Suckler cows and calves	110	80	80	91	140	100	85
Bulls	2	2	2	2	3	4	3
Total	912	1052	1062	1043	1135	1089	1108

The permanent grass and rotational farming systems used at Rushall Farm mean that the animals are a very important part of the farm. The soils at Rushall Farm are not fertile enough to allow continuous cropping so grazing animals allow the soils to rest while their manure adds to the fertility of the soil. Rotation of grazing animals, between cattle and sheep, is essential in the control of stomach worms. Effectively it works out at 35% cattle and 65% sheep at Rushall Farm in terms of grazing land they occupy and organic advice is to have this round the other

way in order to clean up the pastures and control internal parasites. The stocking density on this extensive system is approximately 1 cow per ha or 6-7 sheep.

Suckler Cows

Suckler cows are raised for beef. The calf is left with its mother for 9 months and weaned in time for the cow to rest shortly before the next calving. The herd is now mostly Stabilisers or Stabiliser cross. Stabilisers are a cross of 4 beef breeds perfected over the last 22 years, that breed true. It is hoped that the Stabiliser influence will enable the resulting calves to grow quickly on lower levels of forage as well as adding hybrid vigour to the herd. There are 4 Stabiliser bulls shared between Rushall Farm & Manor Farm in Marcham. The herd is in a health scheme.

The cows graze in the summer and are kept indoors throughout the winter when they eat feed silage (pickled grass). Finished cattle will be sold on contract to Morrisons but some are also slaughtered and processed at Laverstoke Park in Hampshire (Overton) for sale at our own retail outlet at Manor Farm. Cattle going for slaughter weigh about 600kg with a carcass weight of 300kg they fetch £1000-£1200. Heifers will be sold for breeding at a premium of between £200 (1st cross stabilizers) and £400 (2nd cross stabilizers)

This year we have 44 suckler cows and their calves run as 3 herds. They calve in January & February.. The calves are weaned in October having grown at 1Kg/day and therefore weigh around 300Kg live weight and moved to Marcham for finishing.

You may notice a few different cows in the Rushall herd. Although the plan is to eventually have all Stabilisers we do currently have some Brown Swiss, Aberdeen Angus, Limousin and Saler cross animals.

Sheep System

The sheep graze outdoors for most of the year, usually on grass and clover. 500 of the 800 ewes are then brought indoors for up to a couple of months in the winter / early spring when they have their lambs (in March). Whilst indoors, their feed includes silage, and a mix of beans and oats which is high in energy and protein (16%).

The primary breeding ewes are called Hartlines although these are now being crossed with Lleyn (pronounced Clyn). The Hartlines are very "milky" and good at producing twins. The Lleyn have good mothering skills, good worm resistance, good carcass conformation (particularly the wethers: castrated ram lambs) and a good reputation for doing well under an organic system.

The ewes are scanned in January and are this year averaging 1.9 lambs each. Any female lambs that stay on the farm as breeding stock will need two eartags as in previous years but one will

be an EID (Electronic Identification) which will contain the flock number and sheep number).

Rams are brought to produce good conformation lambs which will grow on to sale for meat. The meat rams typically used are Suffolks and Southdowns. Suffolks are crossed with Hartlines to produce wethers (castrated ram lambs) for meat whilst the females are used for breeding. These are crossed with Southdowns to produce an excellent finished lamb.

Virtually all the lambs sold for consumption go to Sainsbury's (unfortunately the abattoir is in Wales which is further than we'd like them to travel) with a small number going to Cumbers farm shop in Marcham. The lambs are sold from 12 weeks onwards at 40kg live weight which relates to 18kg dead weight. The premium for organic last year was as much as 90p/kg in June /July but only 20p/Kg during the September to December period. This is a result of more lambs coming on the market during the autumn. Consequently Rushall Farm needs to concentrate on marketing during the June/July period.

The wool from the sheep sheared is always marketed through the Wool Marketing Board. It is very much a by-product. The total wool clip (how much we produced) came to £1000 off 1000 sheep or 2.5 tonnes of wool (£1 per fleece) in 2008. The figure for 2009 was very similar and in 2010 the wool clip was £1200. Prices have now risen as the cost of raw materials generally has increased. In 2012 the wool clip was £3500.

Attention to detail in the management of the sheep flock is vital to the profitability of the system. High regard for the health status of the flock including foot health, ewe body condition, parasite and fly control and the quality of forage fresh and conserved are the only way to achieve successful sustainable organic production. This year the breeding flock was vaccinated against enzootic abortion and Toxoplasmosis.

Schmallenberg Disease

Currently all farms are likely to see some effect of this disease. It is not transferable to humans. It is transmitted by mosquitos.

Finances

Income streams 2011		Expenditure 2011	
Cattle	9%	Wages	51%
Sheep	31%	Contract	3%
Contracting	23%	Machinery	24%
Arable	30%	Services	5%
OELS	7%	Rent	12%
		Property	6%

The contribution from Single Farm Payment is not included in these figures. If it were income from government including OELS would rise to 25%. The Single Farm Payment (separate to the OELS) is £57,000 but is not included in the farm income. The above will be updated when the figures become available.

THE PRINCIPLES OF ORGANIC FARMING

Co-exist with rather than dominate natural systems.

Sustain or build soil fertility.

Minimise pollution and damage to the environment.

Minimise the use of non-renewable resources.

Ensure the ethical treatment of animals.

Protect and enhance the farm environment with particular regard to conservation and wildlife.

Consider the wider social and ecological impact of agricultural systems.

Maintain or develop valuable existing landscape features and adequate habitats for wildlife with particular regard to endangered species.