## Farming Connect Management Exchange

## Richard Roderick

# Investigating Profitable Suckler Cow Production, based on the maximum utilisation of forage 

SCOTLAND, IRELAND AND THE NORTH OF ENGLAND

## September 2017

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## Aim of the Exchange

The aim over the next five years is to make the business more resilient for the changes which lie ahead. We are aiming to focus on each component of the business and to make them profitable in their own right. A sustainable business will mean producing lamb and beef, mainly from forage, to ensure that the cost base for the production is minimised. As such the grasses grown and their utilisation are key drivers for the business.

The focus in the coming 5 years is to continue to improve the genetics of our beef and lamb with the aim of being able to produce a self-replacing herd/flock. In addition, we aim to focus further on the optimum utilisation of the grass grown.

Over the past year or so we have been collecting data on the herd and intend to performance record all our animals. This will generate the EBV values for the herd, enabling selection for the most beneficial traits in future heifer replacements.

Through travelling to Scotland, the aim was to develop key performance indicators for the beef enterprise. Looking at a variety of top performing herds we would be able to determine these KPI's from the most successful farmers in the industry and to take that knowledge home to implement at Newton Farm.


The exchange would cover exemplary businesses in Scotland, Ireland and the North of England. The conditions for beef production are similar in those two countries and there are some farmers who are leading the way in finishing beef off forage. Determining key performance indicators for use back on my farm is a priority. The farms identified all have reasonably large beef herds and are predominantly based on forage systems.

## Visits



## Doug Deer, Osgodby, Selby, Yorkshire

The aim of the visit to Doug Deer was to investigate options for finishing cattle. Doug is a specialist beef finisher. One option in the future would be to send our bulls to Doug on a B\&B basis which would free up resources at home to concentrate on suckler cow production.

Here cattle are vaccinated before arrival and are finished on a specific diet of home grown cereals and legumes

Cattle can be put into Doug's yard. There is an overhead charge per day, which covers straw, water, machinery,
buildings, etc.
Feed is charged on a pro rata basis all recorded in and out of the Keenan on the IC box. From previous experience the cattle from 350 kgs to 650 kgs will eat on average 16 kilos of fresh weight a day at a cost of $11.2 \mathrm{p} / \mathrm{kg}$, which works out at $£ 1.79$ a day (diets and commodity prices are subject to change). All of this is confirmed prior to cattle arriving on farm.

Average weight gain per day would be in the region of 1.8 kg per day, (not guaranteed, subject to breeding, and other factors out of Doug's control).

## Birdsall Estate, Malton, Yorkshire - Robin Hughes, Farm Manager

Birdsall Estate is a large estate covering 7500 acres, with approximately 1,000 acres of woodland, 5,000 acres of arable and the remainder dry dales. The areas now farmed includes heavy clay soils on the low ground, Wold escarpment and dale sides with large arable fields on the well-drained but shallow flint and chalk Wolds. Annual rainfall is 28 inches per annum.

Birdsall has been involved in breeding stabilisers since 1997. Previously they had a Lim X and Sim X herd using a Charolais terminal sire as well as a dairy Holstein herd. They started by importing 119 embryos. Within 3 years they used only stabiliser bulls. While the aim was heifer retention initially they found the male calves quick, easy and cheap to fatten.


They now have 1300 stabiliser cows, outwintered in corrals. The aim is for an average cow weight of 650kgs, with each cow weaning a calf at $50 \%$ of their body weight. They are still importing 40 embryos a year and a major focus currently on feed efficiency. Each year they send bulls to Givendale where they take part in feed efficiency trials, with bulls then having a feed efficiency EBV.

Since May 2004 they have been a closed herd and they have focused on building the herd. As Robin Hughes quotes, "if you have cattle about you, you always have something to sell."

## Vaccines \& Treatments

Huskvac is used for lungworm. The herd is BVD free. PI3 \& RSV \& Pasteurella using a live vaccine up the nose and a marker vaccine is used for IBR. (IBR free).

## Breeding

This year 50 heifers were Al'd using a synchronised programme to a bull called Resolution. Across the main herd bulls are in for 9 weeks. They have 50 stock bulls and sell approximately 15 bulls a year. A rate of $4 \%$ barren is expected. Calving begins on $1^{\text {st }}$ April and continues into the $1^{\text {st }}$ week of June. Calves are born inside and then go out to grass.

Finishing


Cattle are finished inside using a ration largely grown on the farm. The farm has 13 employees and is fully selfsufficient in machinery and labour. The maximum weight sold this year is 417 kgs , with a weight range mainly of $300-400 \mathrm{kgs}$.

## Selling

Everything sold for breeding is DNA tested, bulls are semen tested and heifers are guaranteed for breeding.

## Manor Farm, Cranswick with Ursula Taylor, BIG Ltd

Ursula is the Sales Manager at BIG Ltd and has her own herd of 15 stabiliser cows as part of her Whitking herd. Her partner Jonathan has diversified into Pig B\&B, looking after 5,000 pigs at any one time on a bespoke contract basis.


## Snipe House Farm, Robert Robertson

The original cows at Snipe House Farm were Angus/Lim with a Charolais terminal sire. Started with the Stabiliser cows in 1999 by buying in semen and breeding up with the primary aim of becoming self-sufficient in replacements. Cows were spotted bulling in the shed and


Al'd.
Five years ago, embryos were brought in to bring in new blood lines. A policy of not buying calves was also implemented which had a positive effect on herd health.

Heifers and cows are bulled for 6 weeks only using natural service. Conception rates average above $90 \%$ although it can be variable on heifers. A
ratio of 40 to 50 to each bull is applied. F1's and "too talls" (not suitable for pedigree breeding due to characteristics) are chosen as embryo recipients.

Autumn calving was shelved in place of April calving and Snipe House stopped keeping sheep. Cows are brought in, PD'd and condition scored. In calf heifers and $1^{\text {st }}$ calvers spend the
winter inside. Cows with a condition score of 3.5 and above and $2^{\text {nd }}$ calvers are now out wintered on rough deferred grazing.

If there is prolonged snow in December wheat straw is fed and in January food is supplemented with dry food fed using a snacker.

The farm runs from 400-900ft.
Calves are weaned at the end of October/early November.
Robert Robertson says that frame size is more important than weight of a cow and he therefore measures hip height of cows. Any cow in excess of 56 inches hip height is "too tall" in his opinion.

Research at Snipe House where cows were grouped by height showed that each group had the same average condition score of 3.5. This meant that the tallest cows were weaning between 30 and $40 \%$ of their body weight, the smallest were weaning $50 \%$ of their body weight and the mid-range were weaning $45 \%$ of their body weight.

Robert used an Access Database to record all his breeding details and cattle information.


## SRUC Scotland with Jimmy Hyslop

Easter Howgate Farm is primarily a research facility and the types of research undertaken is dependent on the funding secured to undertake it. Otherwise the farm is run as commercially as possible.

In Scotland there are 450,000 beef cows compared with just 190,000 dairy cows. The majority of cows are Angus $X$, Simental $X$, Limousin $X$ as well as Luings.

Finishing Beef

The advice from Jimmy is that the key statistic for beef cattle is days to slaughter. This means that maximum efficiency is achieved in food conversion and this also minimises the emissions from that beef production. 23 months to slaughter is too long in his opinion.


Beef producers should be encouraged to adopt efficient, short duration finishing systems that deliver high growth rates, quality carcasses and excellent eating quality with greater profit potential compared to longer duration finishing systems of production. In food conversion terms bulls are more efficient than steers. After weaning the bulls should go onto a finishing ration. They should be eating 11.5 to 12 kgs dry matter per day. Over the course of finishing bulls will eat between 2.3 and 2.5 tonnes of barley. Once the bulls are within specification they should be sold. The view is that at that stage it costs more to add weight than can be realised.

Weighing should be done at least as often as once a month. At Easter Howgate they are trialling a Ritchie weighing system - the water tank is located at the front of a weigh scale. Animals drink several times a day and their weights are recorded and analysed on an ongoing basis. This certainly seems to simplify cattle weighing.


Feed efficiency trials are ongoing at the Farm - efficiency and behaviour is being analysed.

Disease Prevention
The standard protocol for cattle is to vaccinate for BVD/IBR/PI3/RS3 using Respirval 4. 2 vaccinations needed 3-4 weeks apart.

## Cows

Cows in Scotland are largely forage based, but many of the farms visited on deferred grazing are using cob rolls to supplementary feed and ensure the correct vitamin and minerals are fed. The aim is for an average mature cow size is currently $650-700 \mathrm{kgs}$ with an average herd weight of 600-650kgs.

The aim is for an average condition score of 3 to 3.25 .
A key performance indicator is 200-day weight as a percentage of the mature cow weight.

## Easter Howgate Research Farm

The research farm at SRUC consists of 2400 acres, is about 2.5 miles in length and has 3 hills. There are between 400 and 450 acres which are used for winter forage production and which could form part of an arable rotation. 1700 acres are unimproved hills.

They have a spring calving herd of 230 Angus x and Lim x cows as well as some purebred Luings. The autumn herd consists of 60 Angus $x$ and Lim $x$ cows and Luings. Limousins are the most common breed in the UK. The farm also has 1,000 blackfaced ewes. The primary aim at the farm is research.

Synchronised Al is used with two straws each and 3 Limousin and 2 Angus Bulls are used to sweep. The mating period allowed is 49 days. Heifers are calved at two years old.

Calves born in the last year ranged between 30kgs (twins) and 46 kgs .
A key performance indicator is weaned calves as a percentage of the number of cows mated. Target should be $95 \%$. Average across the UK \& Scotland is currently stated at $84 \%$, although SRUC think that it is closer to $80 \%$.

There are 4 elements to the losses:-

1. Scanning \%
2. Losses during pregnancy
3. Losses at birth
4. Losses up to 200-day weaning

## Emissions Monitoring Research at Easter Howgate



A specialist facility has been built to monitor the emissions from both cattle and sheep and is used periodically for research.

## Data Capture \& Manipulation

SRUC primarily use Excel spreadsheets for recording and analysing data.

## Giles Henry, Oakmill Farm, Selkirk

Oakmill Farm is 250 acres down ground and 260 acres deferred grazing on a "green" hill, which is just grazed during winter months. In this area of Scotland rainfall is about 47 inches per annum.

## Cattle

Giles keeps Luing cattle. The breed was initially developed in 1947 and is a cross between the Highland and the Beef Shorthorn breed, with some White shorthorn used too. The ideal Luing is deep bodied and has width at the pelvic bones for ease of calving. Giles calved 44 cows in 2017 and has bulled 60 this year. He uses natural service, and the bull stays with the cows for 8 weeks.

Cows go to the hill on deferred grazing over 260 acres from late October until calving. They are fed 2.5 kgs of a mineralised organic cob per head per day for 100 days before calving fed using a snacker.


## Conservation Grazing

Utilising the hill over the winter months not only makes business sense it is excellent for the biodiversity of the hill. Flowers and grasses grow in the summer and set seed before being grazed and fertilised by the cattle during the winter months.

## Calving

Takes place on the hill from $1^{\text {st }}$ April each year and calves are tagged immediately. $84 \%$ of calves born are polled. Bull calves are chosen at birth, based on genetics and their ability to get up and go and the rest are castrated.

Calves are weaned in early October and go straight onto paddock grazing. From there they will graze Kale and eat silage over the winter before being rotationally grazed again the following summer. Cattle are finished at around 25 months old off grass. The steers are sold at an average liveweight of 615 kgs and 350 kgs deadweight into the premium organic scheme at Dovecote Park, currently circa $£ 5$ a kilo. His best steers are achieving $£ 2,000$.


## Sheep

Giles has 300 North Country Cheviot ewes, which he has been recording fully for at least 15 years using Border Software \& Sygnet.

Lambing starts from $26^{\text {th }}$ April and ewe lamb replacements are selected at birth based on genetics and a flag tag inserted. His average weight of ewe lambs at 20 weeks old is 34.5 kgs .


## Grassland

pH values are key to this farming enterprise and a range of 6.2-6.5 is maintained, above the recommended pH . Giles believes this is key to his ability to achieve a high level of grass growth.

Rotational Grazing using electric is reported
to increase output by $27 \%$

Giles' system is organic and he is passionate about grass and its utilisation. He turns over his leys every seven years using Kale as his break crop. The current total cost of reseeding is $£ 100$ an acre. With the output achieved Giles believes this is good value for money, compared to buying in acres through rents. The quality of his grass is exceptional and he reported an ME of 12.6 on his clover ley in September.

Paddocks are fenced using electric into 1 hectare blocks. 20 cows and calves graze 1 ha in approximately 3 days. Each plot is then rested for approx. 21 days. With unfavourable growing conditions this can be extended to 42 days. Stock are removed at 1200 kgs dry matter per hectare and reintroduced when the grass has reached $2,500 \mathrm{kgs}$ dry matter per hectare.

He alternates grazing with cattle and sheep and rests plots for at least 21 days. This allows a break in the link with the worm cycle and creates clean pasture.

## Kale



Land is ploughed in May and worked initially and worked and seeded ideally in June. He uses the Redstart variety at 3 kgs per acre. Weaned calves graze from one end and 18 month old steers from the other. His young animals are outwintered in this way between October and April.

Using his present system of farming Giles has been able to halve his contractor bill.

## Alex Brewster, Rotmell Farm

Alex became part of a QMS grazing group in Scotland and this sparked his interest in electric fencing to increase his grass production. Rotmell Farm is 4,000 ha, with $7 \%$ of it improved.

After searching for electric fencing components across the world Alex has set up a company called Powered Pasture, with four people now involved in running the business. The company does anything connected with electric fencing.

The farm stocks 2,000 Blackies and Lleyn X ewes and maternal traits are key to lamb

production. He has 100 spring calving purebred Angus cattle. He hopes to increase his cows to at least 160, maybe 200. Heifers not retained are sold privately to a local butcher. He winters some of his beef off farm at Stranraer. In his cows he looks for muscle depth and maternal ability. Disappointingly his cows have just scanned 14\% barren. Calves were
weaned at 155 days, at an average of 230 kgs . Paddocks are electric fenced into 3ha blocks, some with semi-permanent electric and the rest easily moved. The fencing costs approx. $£ 3 / m$ fully erected. Water is the main issue with paddock grazing and Alex has designed his own water tank system, on skids, which he can drag from one pasture to the next.

On the grazing system his heifers average 1.5 kgs a day and his steers 1.6 kgs a day. The cattle are all Eid'd.

Quality of soil is key. Alex reported that a 1\% increase in organic matter in the soil will mean that it can hold an extra 2,500 tonnes of water, equivalent of 1 inch of rainfall. As grass grows it puts an
 equivalent length of roots down. As the grass is eaten that length of root dies and becomes the organic matter. And so the process continues - carbon sequestration.

## Donald MacGillivray, Pennygown Farm, Isle of Mull

We visited the Isle of Mull to investigate how Highland Cattle are being used for conservation grazing. This is extremely relevant to us as we have been grazing 10 Highland $x$ cattle on Allt yr Esgair for 2 years, but as yet we have not managed to devise a way of securing a margin from them.

Donald has been a very good breeder of Highland cattle and in 1992 he sold a bull for $£ 20,000$, the top price ever for a Highland Bull. He is still breeding pedigree highland, but is also crossing them with Simental as the young stock are worth so much more that way. Shorthorn Bulls are used to produce Luing youngstock, which are a sought after breed.

very little money in farming on Mull. He has reduced his sheep numbers to 600 and reduced his Highland Cattle to 60.

He has diversified into housing development and is starting to construct a caravan park. His son, who now runs the

Donald has a lifetime of knowledge of the Highland breed and has judged at shows in the UK (including the Royal Welsh), Europe, New Zealand and America.

Donald was farming 20,000 acres, mostly hill land, but he has given the majority of it back as there is
 farm now has an articulated lorry moving fish around the islands. In its lifetime a farmed fish is moved 3 times.


## Robert Fleming, Castle Sininess, Newton Stewart

In this area of Scotland rainfall is 42 inches per year. The land ranges from sandy foreshore where the land is warm, free draining \& fertile to other good ground. The whole farm has an electrified perimeter fence and every field is electrified too. Water is expensive, but there is an excellent supply as the reservoir is just 2 miles away.

Farming 600 acres, 240 Angus x cows, also focusing on growing \& finishing cattle. Within this herd is a purebred elite herd of Pedigree Angus cows, from which he breeds his young bulls, which are used on the rest of the cattle before selling as worked bulls. This way he ensures that the best genetics possible are used in the main herd as quickly as possible. 200 heifers will be finished between April, May \& June of the $2^{\text {nd }}$ summer dependent on grass. Steers are housed on $16^{\text {th }}$ December \& fed round bale silage until $4^{\text {th }}$ February. He uses AI and embryo transfer to improve the genetics of the herd.

Historically the farm was a dairy farm until 1997. Then 150 beef cows rising to 265 at the peak selling calves at 12-15 months of age.

The farm is split into $4 / 5$ ha paddocks ensuring quality as well as quantity of grass. The reseeding policy is based on the yield from the field. He uses a plate-meter on each field fortnightly from January to mid-March. His best fields are doing 20 tonne of dry matter per hectare per annum. If fields are not achieving this initially he stitches in more clover and if that doesn't
 improve the situation he will fully re-seed the fields and take a whole crop cut of peas and barley.

Ryegrass is chosen for bulk and Timothy for body and root structure, with Timothy rooting to 4 times the depth of ryegrass. 10\%
white clover is used in the mix. $40 \mathrm{kgs} \mathrm{N} /$ ha is applied every 45 days. Red clover is used for silage (not sheep) and the farm is growing lots of trial plots for comparison.

Robert has soil mapped the whole farm. A 10 acre field may have up to 6 zones. In that way P \& K can be applied effectively in a variable way. He uses Agrii \& Soilquest at a cost of $£ 11 /$ ha to do up to 50 soil samples a year. They use a converted trailer to take samples and they also assess the depth of the soil. The more soil you have the more you can do with it. The aim is to have a pH of 6.5 across the whole platform.

This programme of rotational grazing is improving the carrying capacity of the farm by $30 \%$.
He applies Nitrogen 3 times at $40 \mathrm{kgs} / \mathrm{ha}$ each time totalling $120 \mathrm{kgs} / \mathrm{ha}$. Grass is tested every 21 days. In May, June \& July protein was 27\%, now it is averaging 21\%.

Cows, calves and growing cattle are moved twice a week initially and then every 48 hours in the spring/summer and then in August back to twice a week.

Robert is aiming for U shaped bulls and R shaped cows. Bulls must grow 1.4kgs per day off grass or they are castrated. One calf is achieving 1.63.

Cows should have a fat score of 5 , have a calving index of 390 or less and be less than 750 kgs in weight.

## Silage

If it has been dry for 72 hours then grass is cut and wilted for 36 hours. Analysis shows that it is $17.7 \%$ protein, 11.6 ME and $49 \%$ dry matter. Robert reports that he is making the same quality of silage with his surplus grass.

Lucerne - produces 12.5 tonnes/ha across 5 cuts, $22.2 \%$ protein 11.7 ME. Gets P\&K in autumn and N in the spring. The pH of the land is 6.9.

## Contract Rearing

132 beef calves are being reared on contract, with an expected growth rate of 0.6 kgs per day. If they achieve more than that he will achieve a bonus. These jersey x calves are currently achieving 0.95 kgs per day on grass and are being rotationally grazed. Quality haylage has been introduced to help develop the rumen to counter-balance the high quality of the grass. These 132 calves are on 1.25 ha and are moved twice a week.

Health plans are agreed with
 the owner and Robert's vet in advance, including a pneumonia vaccination and a wormer.

Faecal egg counts are calculated every 42 days.

These calves will go inside on $1{ }^{\text {st }}$ November and back out onto grass in February.

Robert is running 120 growing cattle as a group and can accommodate 700 cattle and therefore the temperament of the cattle is important.

## Sheep

The farm has 60 Roussin ewes, 75 kgs in weight, lamb at $200 \%$ and fatten off grass. They are used to mop up for weeds.

## Slurry

Slurry is separated, solids are ploughed in and liquids are injected. Every cubic meter of slurry has 2.5 N .

## Data Capture and Analysis

Every animal has an EID which makes the recording of weights and medicine book very simple.

On tagging a double tissue sample is taken. One is for Angus breed society DNA testing and the other is a full BVD test.

Cattle are weighed every 21 days. When they get to 500 kgs a confirmation grade and fat cover are also recorded.

Every month data is analysed to establish how much has been grown in tonnes of meat for both bred and bought in cattle.

Shearwell farmworks software is used and exceptions examined where weight parameters have been used to highlight cattle not performing.

Biosecurity

Robert keeps his own breeding stock at the home farm only. Growers are kept at his Dad's farm and growers and finishers are based on his sandy ground down by the shore. Footwear is dipped before visiting different batches of cattle.

## Andrew Nelson, Cogarth Farm, Castle Douglas

Andrew is farming 500 acres - with a third hill land, a third grazing land and a third on which silage can be made. Rainfall in this area is 55 inches per year. The river land is a SSSI.

Andrew is preparing to paddock graze from next year. His fields are mainly around 12 acres and he intends to split them into two.

He uses the hill land for deferred grazing.
Andrew has circa 500 Cheviot Mule \& Cheviot x Texel Mule \& Lleyns ewes and mainly uses a Texel ram although he is trialling an Aberdale for the first time.

Andrew has had an exceptional sheep performance this year scanning 198\% and rearing $192 \%$. His barren rate at scanning was just $1.8 \%$.

Ewes were fed on the hill with a snacker, but after huge losses due to the weather conditions in 2013 he changed to lambing inside and the sheep are fed a complete diet of silage, soya and whole barley.

Lambs are sold through Farmstock. His average in 2016 was 20.25 kg dead and this year it is 19.62 kgs . He also sold 150 ewe lambs privately for breeding. Andrew has been selling mainly deadweight since 1986.

Andrew has circa 140 Angus X Simmental cows and uses high growth, easy calving index


Charolais bulls. Through improved genetics and grassland management Andrew has achieved huge increases in the weight of youngstock sold. In 2004 his Charolais steers averaged 318 kgs and in 2016 that had increased to 435 kgs . Heifers have increased from 293kgs in 2004 to 413 kgs in 2016.

Replacements are bought from the same dairy farm each year. He buys in the calves at a month old and rears them. They are bulled to an Angus bull and calve down at 2 and a half years old. The aim is to have a mature cow weight between 600 and 650 kgs . The bull goes in for 9 weeks only, with $85 \%$ born to the first service. The heifers are bulled 3 weeks earlier. Andrew reports that calving is usually problem free, but he had 3 Caesareans in one week, with one freak calf born at 82 kgs .

The herd has been BVD free since the 1980's and the cows are vaccinated for BVD and Lepto.
Grassland


Andrew was BGS Grassland farmer of the year in 2011. He discs in and stitches in new grasses and kale for wintering the cows and calves. The kale variety is mainly Maris Kestrel, 2kgs to the acre.

A third of the farm is soil sampled each year and calcium lime is used to maintain the pH .

## Doug \& Lorna Greenshields, South Mains Farm

At South Mains Farm they calve in the region of 200 stabiliser cows each year. Natural service is currently used, but they may AI 70 cows and the best 50 heifers next year. If this option is taken half will be synchronised on Day 1 and half on Day 7. Under this option all cows get serviced twice in the first 29 days. If the Al option is taken next year Doug \& Lorna will look to produce bulls for sale.


Cows \& heifers are PD'd in December. On weaning a calf will have an injection for IBR. A heifer will get her own management tag when she is PD'd in calf

The Greenshields report a high replacement rate for their cows. Cows are culled for feet, udders, barren, last to calve, bad temperament. EBV's and data recording are used extensively at South Mains.

Doug has been using a paddock grazing system for some time and intends to extend the area under this regime next year. He puts blocks into 3-3.5 acres or 4.5-5 acres. He has circa 23 acres in 1 block. He keeps 50 big bullocks on 23 acres.


Doug stresses the need to understand your grass and to "walk the wedge" every day. pH
levels are maintained at South Mains. During rotation it is important that the grass is fully utilised. Mule ewes and twin lambs rotate first then the $1^{\text {st }}$ calving heifers.

Doug sells stock through an auction market and fieldsman.

## David Kirkpatrick, Auchenbainzie

David farms total 857 ha split between hill and upland grazing ranging from 60 metres to 300 metres. Auchenbainzie is run on a commercial basis with 140 Spring calving stabilisers, 180 Holstein Dairy cows and 2,000 breeding ewes. David Kirkpatrick has adopted his own way of outwintering his suckler cows on 800 acres of hill. (deferred grazing)


The Stabiliser cattle, all Al'd once (synchro) and sells bulls and heifers. Success rates are $62 \%$ for $1^{\text {st }}$ calvers and $72 \%$ for the rest. Calves are weaned in October. Cows are PD'd and sent to the hill. In January the cows are brought in, fluked, vaccinated and condition scored. Those with a condition score of 2 \& under are kept in, while those above go back to the hill. In March they are fed on the hill using a snacker 3 times a week. They calve on the hill from $7^{\text {th }}$ April \& calving finishes mid May. David reports selling an impressive 96 calves for 100 cows mated.

## Advantages of outwintering on Auchenbainzie

- Very simple system.
- Savings from October to the New Year of $£ 0.57$ per day over housed cattle. Additional feed is given after New Year if cattle continue on hill areas
- No heavy build up of cattle in any areas such as if feeding with silage trailers/ring feeders which can cause poaching in a small confined area.
- Reduced stocking rates with good levels of vegetation at all times so avoiding damaging species rich/ unimproved pasture
- Minimum erosion which can lead to run off into watercourses
- Reduce wintering costs by keeping cattle out for part or all of the winter.
- Potential to increase numbers of cows kept with some inwintered and others outwintered.
- Outwintering dry cows provides extra capacity to retain store cattle that would normally be sold.
- Evidence that spring calving cows have fewer calving problems if "exercised" on outwintering systems.
- Evidence that with fewer numbers and the time cattle spend in sheds reduces the build up of infections in buildings prior to calving.
- Heavily stocked sheds throughout winter can lead to health problems such as pneumonia in young calves.
- Cattle wintered outside in the right soil conditions appear contented and healthy.

David's advice is to concentrate on Maternal Production Value.

## Outcomes from the Exchange

The hospitality shown and the information shared by the farms visited was overwhelming and I cannot thank everyone I met along the way enough. Visiting another farm/producer is a privilege and each time I learn something new or a new way of doing something. The detail of the visits made is contained in the next section of this report and the summary here highlights the key messages I have taken from the exchange.

## Grass

$\checkmark$ Rotational grazing leads to an increase in output by 27\%
$\checkmark$ The mix of grasses grown especially clovers is essential
$\checkmark$ Maintenance of correct pH values are essential to grass growth, requiring regular soil sampling.
$\checkmark$ Grazing height and "walking the wedge" are essential features of good grass utilisation
$\checkmark$ Putting pressure on pasture increases the root mass, improving soil structure and humus in the soil. This leads to greater water retention and less run off.
$\checkmark$ Set up of water and electric systems is vital to success of rotational grazing.
$\checkmark$ In this respect the ability to hot wire the circumference of the farm in Wales is tricky as we have a huge number of hedges and greater vegetation growth.

## Cattle

$\checkmark$ Can be outwintered on deferred grazing quite happily with cows fitter and with reduced labour costs.
$\checkmark$ This is of course breed dependant. The breed chosen must fit with the farm.
$\checkmark$ Genetic improvements over time help with EBV's too - Al is the quickest/safest way to improve genetics
$\checkmark$ Kilos grown per hectare is a key measure
$\checkmark$ Highland cattle make excellent conservation grazers but need to be crossed to be economically viable.

## Key Measurement Indicators

$\checkmark$ Cows confirmed in calf as a \% of those put to the bull
$\checkmark$ Live Calves as a \% of those confirmed in calf
$\checkmark \%$ of cows calving in first 6 weeks and second six weeks
$\checkmark$ The weaned weight of calves as a \% of the cow's body weight
$\checkmark$ Days to Slaughter
$\checkmark$ Weight gain per day over life

## Conclusion

As a result of the visits greater use of rotational grazing will be used at Newton Farm next summer. Data will be recorded and evaluated in line with the KPI's listed above. My sincere thanks go to the Farming Connect Management Exchange as well as Ursula Taylor and Rhidian Jones for helping to make the visits possible and to all the farmers/specialists visited for sharing your knowledge. The information gathered will help to move Newton Farm towards resilience.


The Farming Connect Management Exchange programme provides an opportunity for individuals to either:

- undertake a visit to other farm or forestry situations within the EU, or
- to host a suitably trained and experienced farm or forest manager visit to their home holding
The application window opens every June.
For further information contact Farming Connect on 08456000813 or visit www.gov.wales/farmingconnect


