

## SUMMER 2017

### Inside this issue

Genetics and Nutrition are key for Mains of Gallery

Maxammon Barley Produced Dramatic Results

Ammonia Treated Straw - Consistent Feed Value and Contented Cattle

Rumitech aiding performance with improved grading and killing out percentages

## GENETICS AND NUTRITION ARE KEY FOR MAINS OF GALLERY

*The Gammie Family*

**The Gammie family made the move from Kingswells on the outskirts of Aberdeen down to Fordoun, Laurencekirk in 1971 where father Ronald and his three sons Norman, Douglas and Alastair now farm four units at Hatton Mains, Mains of Gallery, Davo Mains and Easter Tulloch.**

An acreage of 2450 is farmed, with 1100 owned and 1350 farmed under contract. In addition to the 705 acres of grass, a mix of crops is grown including winter barley for feed and this year, field beans will be grown. Wheat and oil seed rape are both sold along with spring barley destined for the malting market.

Mains of Gallery and Davo Mains were best known as dairy farms until the herds were sold in 2002 and 2006 respectively but the suckler herd had been established and cattle finished for a number of years before that.

"We had always finished cattle and set up the finishing unit at Mains of Gallery when we stopped dairying," says Norman. In the intervening years, the suckler herd has been built up to 400 cows with 150 at Davo Mains and 250 at Easter Tulloch and approximately 1800 head of cattle are finished annually.

Cows are predominantly Simmental or crosses, using Aberdeen Angus or Simmental bulls on heifers. However, the one constant has been the Charolais breed and the

business now runs 14 bulls and 90% of calves produced are to the Charolais.

Bulls have their feet checked and trimmed at the end of the year and then receive Harbro Bull Fertility supplement for four weeks before being put to work. Bulls go in with the cows and calves in the last week of March and are kept inside for three weeks.

**"We get a much better conception rate because they are not having to chase them round a field. They'll cover a lot more cows with an 85-100% conception rate first time round" says Douglas.**

Bulls come from a number of different bloodlines but one bull in particular, Carscreugh Hernando is readily praised by Alastair as his attributes have shown through well in his calves.

"He is breeding well and has produced good, lengthy calves. He moves well on his feet and is a real stock getter" says Alastair who runs the suckler herd with Douglas.

"His second crop of calves are coming through now. He's very active and keeps his condition really well" added Alastair. Advocates of the Charolais breed, they all share the view that you cannot beat the breed for carcase weight and speed of growth.

Prior to calving the cows are fed on a ration of silage, draff and Super Suckler SEC minerals with access to ad lib straw. They get extra protein once they have calved, adding some blend and barley to their ration. Access to the same mineral continues over the summer at grass.

The herd is all spring calving beginning in mid-January and this year, two thirds of the cows were calved by mid-February.

"Cows and calves get turned out at the first flush of grass" says Douglas who is based at Davo Mains. "The cows get a flush of milk and by this stage the calves are big enough to take advantage of the increase in milk and are also big enough to nibble at the grass."

With them being born early in the year, calves are wormed in mid-August and the brothers have seen a big difference in the health of the calves. "Some are bothered with hoast and lungworm which can lead to pneumonia and this practice has helped to reduce stress in our calves" says Douglas.

Continued overleaf ►

Calves are creep fed from an early age and right through the summer. "They don't eat much but it encourages them and they get used to it."

They move to a rearer ration of 16% protein Beefstock in June at around 4-5 months of age until weaning around 10th October. Stots are weaned first and moved to another farm where they are vaccinated and wormed according to the animal health plan. Heifers are clipped, receive their animal health treatments and are left with their mothers for a further five to six days. Cows are then turned out weather permitting.

Up until 2015, all males were kept entire but last year all male calves were castrated. "Our bulls were finishing at heavier weights so castrating them has been beneficial because of the weight restrictions. The market doesn't want bull beef and you'd struggle to keep them under 400kg at 12 months," he added.

"We've just sorted out the feeding rations for these stots and it will include Maxammon barley, beans, Harbro blend,

draff, silage and Harbro Beefmax minerals with Rumitech and Yea-Sacc" says Douglas.

The heifer ration from weaning to 14 months comprises straw, silage, beans, Harbro blend, Beefmax minerals and barley which has a protein level of 17%. From 14-18 months they go onto a 14% protein feeding ration of straw, barley, potatoes, molasses, Beefmax minerals and Harbro blend.

Once the heifer's frame has been grown, the diet is adjusted, lowering the protein level and increasing the starch to increase the muscle area and the carcass weight.

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**A lot of work has gone into the diets, tailoring them to suit the genetics and management of the cattle, and the family work very closely with David Mackenzie of Harbro.**

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Heifers are reaching 680kg at approximately 19 months (580 days), less their birth weight of 40kg, 640kg over 580 days, achieving 1.1kg/day average.

Bulls weigh in at 700kg at approximately 14 months (427 days), less birth weight 40kg, 660kg over 427 days, achieving 1.55kg/day average.

Eldest son Norman runs the finishing unit at Mains of Gallery and he purchases 1300-1400 head of cattle from Thainstone, Inverurie, Quoybrae in Caithness and across the Pentland Firth in Orkney.

Cattle are bought all year round so that there is a constant product with ABP, Perth being their main buyer. "You need to keep going over the summer to be able to get that rise in price" says Norman.

"I'm looking for cattle that have good length and shape with the potential to gain 170kg live weight. I'm buying in at around 500kg, going to 660-720kg in 110 days (looking to put on 1.5kg/day)."

"Of the cattle bought 80-90% are Charolais crosses and 90% are heifers but whether a stot, a bull or a heifer, the Charolais give you the heaviest weight at the youngest ages" says Norman. "It definitely shows in the kill sheets when you put them away."

## Maxammon Barley Produced Dramatic Results

### David Renton, and his father Ivor, run High Highlaws Farm near Morpeth.

The 500-acre farm has 200 breeding cows including 40 to 50 pedigree Limousins. The rest are Limousin crosses or British Blue cross.

High Highlaws is mainly pasture but about 40-50 acres of spring barley is grown in rotation for feed and as a break before reseeding with grass.

"Previously we crimped the barley for a high energy feed to finish the cattle," says David.

"But we decided to try out barley treated with Maxammon because we had heard it was possible to achieve high growth rates.

"We crimped half the crop, rather than switch completely, and treated the other half with the Maxammon," he adds.

Cattle were offered 1.5kg a day of the treated barley while at grazing in late summer to offset the decline in grass quality and to introduce them to a cereal-based diet before housing.

At housing the cattle were put on to a finishing ration of 10kg Maxammon treated barley, 10kg silage plus straw for roughage and 1.5kg of pot ale.

The treated barley clearly produced dramatic results.

"It was at the first weighing we realised the incredible growth rates that had been

achieved on the Maxammon treatment. Some of the heifers had liveweight gains of 2.2kg a day," David says.

The minimum growth rate recorded was 1.7kg a day and the overall average was 1.9kg a day.

For the trial the Rentons only treated 60t of barley for the 160-170 head to try it out.

"In about a month we ran out and switched on to the crimped ration instead," David says.

The switch saw a huge drop-off in performance by the next weighing session.

"Growth rates had fallen dramatically from 1.9-2.2kg/day on the treated barley to 1.4-1.5kg a day on the crimped grain," he says.

David reckons there was a combination of factors causing the difference in growth rates including animals naturally slowing down as they approached their final weight.

"But getting barley dry matter intakes of almost 10kg a day on the Maxammon treated crop must be the biggest factor. We have never had growth rates so consistently high," he says.

He also reports that cattle health was good.

Barley dry matter intakes at that level would normally be impossible and the cattle would suffer from acidosis and laminitis.

"With the improved rumen function, even feeding 10kg of barley we have not seen any lameness," David reports.

The finishing quality of the cattle has also improved.

"We have seen a big increase in the number of Us and U+s. Out of the 110 sold we only had 10 grade as R's," he recalls.

Treating the grain with Maxammon proved to be easier than the crimping process.

"While crimping needs to be carried out as the barley comes off the field, this system can be done when it's more convenient," David explains.

Grain came off the field at 18% moisture which is acceptable because the Maxammon treatment needs moisture to work.

"We put the grain into a mixer wagon. If the moisture content drops you just add water. We put in 250kg of water when the crop was drier at 16%," he says.

"It's more expensive than crimping," admits David "However the benefits have been huge and the protein costs are lower." We are now looking at reducing the level of silage fed and upping the Maxammon barley content."

# CONSISTENT FEED VALUE AND CONTENTED CATTLE WITH AMMONIA TREATED STRAW



## At Mains of Arnage, Ellon, Aberdeenshire they have been using ammonia treated straw to feed cattle for over ten years.

The farm run by Andrew Biffen, his partner Fiona Bradley and Andrew's son Matthew, treated 600 bales in 2016 from 250 acres which is mainly sown to spring barley.

The ammonia treated straw has provided bulk feed to their herd of 130 commercial Simmental x Limousin cows when housed over the winter.

Andrew Biffen explains "we introduce the ammonia treated straw in October while the cattle are still at grass, so that they can become accustomed to the feed before they are housed. Once they are in, we then combine the straw with pot ale and Harbro straw balancer mineral to ensure that they are receiving a balanced diet. We also add silage a month before calving to help milk production".

Calving in February the cows remain on the ammonia treated straw after calving up until turnout in the spring, once out at grass Super Suckler buckets are provided to ensure mineral requirements are still maintained.

## The family have opted to use ammonia treated straw instead of silage for a number reasons and have increased the amount they are treating over the years.

"There is less mess with ammonia treated straw, the cows are much more contented as fed free access and are maintained in good condition. We find the straw provides a consistent feed, silage is much more variable in nutritional value and although was good in some cases we still found there was a

lot of waste. We have also found that we use substantially less straw bedding, as the cows are on a dry diet. Plus by not producing silage we have released extra grass acres for grazing" commented Matthew.

## The Biffen's plan to treat a 1000 bales in September this year, ready for feeding over the 2017/18 winter.

The calves are sold as yearlings, so they remain out with the cows until the autumn

enterprise around 5 years ago and now have a flock of 280 half bred x Suffolk ewes.

The flock is provided with Energyze Forage Booster initially and then are moved on to the Energyze Vitality and Premium Ewe Rolls pre-lambing along with molasses provided by Harbro, which helps to prevent against twin lamb disease.

The lambs are finished off grass and are again sold through Aberdeen and Northern Marts.



Pictured Matthew and Andrew Biffen

and are fed on a creep ration which is produced on-farm using the Harbro feedmobile. The ration which includes home grown barley, Harbro Excel 40 Champion Meal, Alkacid and Sugar Beet Nuts together with molasses, allows the family to utilise cereals which are produced on farm and to manage feed costs effectively.

The calves stay on the creep until sale between February and May when they are sold through Aberdeen and Northern Marts.

As part of a progressive approach the family re-introduced sheep to the

The farm is part of the recently launched Farm Profit Programme which is an initiative run by the Scottish Farmers Journal, Aberdeen and Northern Marts and SAC Consulting. The programme has six focus farms throughout the North and North East of Scotland that are working with a number of advisors to draw up a three year plan that aims to improve on-farm outputs, profitability and performance.

# RUMITECH AIDING PERFORMANCE WITH IMPROVED GRADING AND KILLING OUT PERCENTAGES

Michael Wilson



**Purchasing most of their finishing cattle from the Orkney Isles in the north of Scotland, the Wilson family aim to finish the cattle on an intensive 150-200 day finishing period, using a finishing ration which includes Harbro's Rumitech.**

Trading as A T Wilson and Co, Michael, along with wife Carol and parents Thomson and Moira, put on average 36 cattle per week direct to Woodhead Brothers in Turriff, finishing around 2,000 annually. Seed potatoes along with a small pedigree herd of Limousin cattle make up the enterprise at Brownhill of Annochie, Auchnagatt, near Ellon - stretching over 1200 acres with an additional 300 acres contracted.

With the majority of cattle continental, the team at Brownhill of Annochie purchase around 200 native Shorthorn crosses each year, which they receive a premium of 25p/kg at Woodheads for.

Cattle are bought between 12-15 months of age, with 95% being steers and 5% heifers. Any lighter cattle that are bought in will be put to grass for a short period before joining the remainder of the finishers inside.

The finisher ration is made up of 12% wheat, 12% pot ale, 5% malt nuts, 5% distiller's dark grains, 66% barley and the Grampian Beef Max mineral which includes Rumitech + Yea-Sacc.

Innovation and research is key for the business, with the farm being one of the first to pioneer Rumitech in the UK. Five years down the line and with a background of research and findings, Rumitech is still used in the finishing ration.

'When David MacKenzie from Harbro approached us five years ago to see if we would be part of the small group of farmers to trial the product, we were more than happy to get involved.

'We feel it is important to try and gain a slight edge to help maximise profit and efficiency for our business. We saw the trial as a great opportunity to keep involved

with innovation within the industry and to achieve the aims we set out,' says Michael.

'Most cattle are purchased from the Orkney isles, so are coming to us from the age of 12 months up to 24. We don't see this as an issue as cattle from the islands tend not to be pushed as much compared to the younger cattle that are bought. They seem to have bigger frames and I find them easy to finish.

'We are hitting an average liveweight of 730-760kg and, deadweight of around 420kg.

'Killing out percentage varies from 52-60% for one load of 36 cattle - all dependant on size, confirmation, time on feed and the breed,' Michael continues.

Average daily liveweight gain is also dependant on the breed and size of cattle. Smaller cattle which are put out to grazing for a short period are averaging 1kg/day. Inside finishers vary between 1.4kg/day for the better killing out cattle to 1.7kg/day for cattle which are killing out at a lower percentage.

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**Rumitech has helped the Wilson's reduce the intake of dry matter fed to the cattle by 10%, saving heavily on feed costs.**

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'As well as the significant difference in feed costs due to the dry matter intake reducing, cattle grade and kill out is a lot better since we introduced the additive. This again helping to boost our efficiency and margin'.

'60% of the cattle being killed are hitting a fat class of 4L, 30% 4H and 10% 3. Carcass confirmation is also grading well with 70% U and 30% R.'

The finishing cattle are kept on straw bedded courts, with the feed ration being fed through an ad-lib hopper system. Weighed regularly through the Wilson's inside handling system, the family have also started to trial a new weigh system from

Harbro, where a weigh crate is set up within the pen of cattle.

'After having great success with the trial we did on Rumitech, we had no hesitations about getting involved with Harbro weigh system trial,' says Michael.

'We see the trial as a potential advantage to our system, to save handling cattle as often, reducing the stress on both them and our workers. We are currently trialling two of the crates and they seem to be working well with the system,' he continues.

Working in conjunction with a number of partners including, Morrison's, Scotbeef and SRUC, Harbro have developed the new technology to monitor the growth of cattle.

'The integrated water trough and weigh crate system, designed with Ritchie Agriculture allows the cattle to enter and drink freely throughout each day. Each time an individual animal enters the crate a weight is recorded and linked to a computer system through the EID tag,' comments Farran McLean, Harbro's Research and Development Co-Ordinator - who has been involved with setting up the trials.

Although still in the trial process, Michael strongly believes that a weighing system, working alongside Rumitech, will continue to improve daily liveweight of the cattle due to reducing stress as they will not be handled as often. It will also allow them to monitor the weight of cattle more accurately before the cattle leave the farm, ensuring they are not being put away too heavy and over spec.

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