



WINNING MIXTURES FOR WINNING FARMERS



DUART™ CASTLE MIXTURE LEADS THE WAY



YARA GRASS PRIX 2014



Willie Watson, Muir Farm, Mauchline, Ayrshire has won the Yara Grass Prix competition 2014. He produced the highest energy yield over the first two cuts of silage beating farmers from across the UK. A staggering fresh weight of 50.1T/ha was achieved from Duart. He also came first in the Big Bale competition at Agriscot 2013. Willie pictured above with his son, Andrew, and daughter, Katie, in a field of Duart.

FARMER'S WEEKLY AWARDS 2014



John Scott of Fearn Farm, Ross-shire has won Sheep Farmer of the Year in the Farmer's Weekly Awards 2014. John has recently sown a large acreage of a modified Duart with permanent clover blend to deliver the energy level he is looking for.

Photo courtesy of Farmer's Weekly.

AGRISCOT 2013



Mr David Yates, Meikle Firthead, Dalbeattie, Dumfries and Galloway won the First Cut Clamp Silage competition. This was achieved with a sample that analysed as follows:
D value 76.36, ME 12.22, Crude Protein 14.34, DM 24.28.
The field of Duart was cut on 24 May 2013.

OUTSTANDING FARMER OF THE YEAR 2014



Colin Mair, Townhead Farm, Dumfries, has become the first winner of The Co-operative's Outstanding Farmer of the Year award. Johnny is proud to have taken his first grass seed order in Scotland from Colin's father, the late great, Hughie Mair, 38 years ago. A moment he still vividly remembers! Colin sows Duart to establish swards fit for his high performing dairy herd.



ROYAL HIGHLAND SHOW 2014

We are very proud that three of the overall winners from the Royal Highland Show are customers of Watson Seeds.



J Runciman & Sons, Allanshaws, Galashiels won with his North Country Cheviot. Mr Runciman is keen user of Mingary and Hermitage with extra clover.



Alistair Clark & Sons, Avisyard Farm, Cumnock (bred by John Elliot) came first with Rawburn Jester Eric the Aberdeen Angus Bull. Alistair Clark & Sons are Mingary users. Customer of Jack Lamb.



Sheila Yates & Caroline Lawrie of East Logan, Castle Douglas (bred by D & AC Shakeshaft) with their cow Dilandy Debonair Tabitha Red. They have used Duart for a number of years.

Photographs by kind permission of MacGregor Photography

NORGRASS SILAGE COMPETITION 2014



For a second time Michael Martin, along with his sons Ally and John, of Garguston has won the North of Scotland Grassland Society's silage competition. Seed supplied through Harbro Ltd.

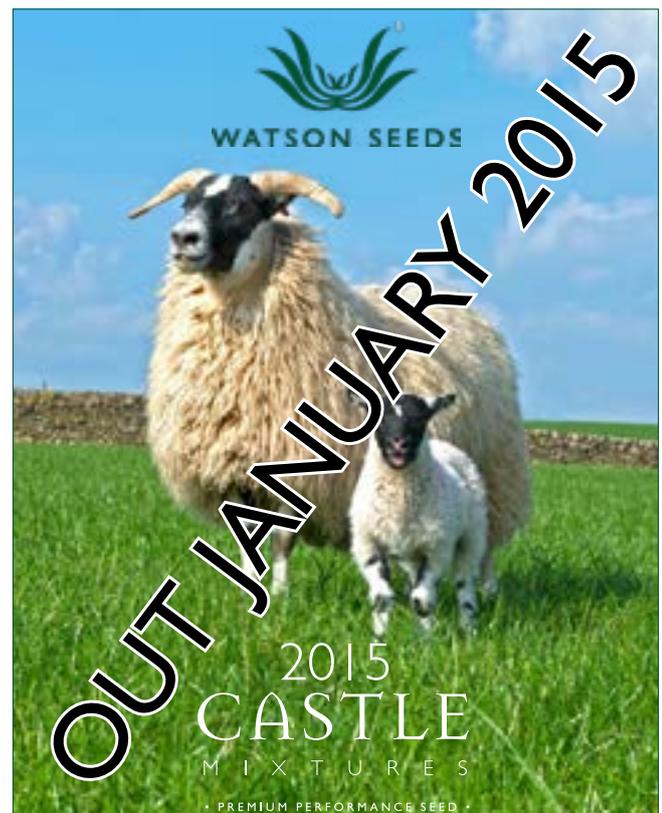
'Grass plays an important roll in our arable livestock farm. We were lucky enough to win the Scottish silage competition with a Tantallon seed mix which was sown out in the autumn and cut twice to give us high quality silage and then grazed with yearling cattle. I have bought Watson's seeds for many years and would like to thank Peter Addie for his professional advice,'
Michael Martin

SUPPORTING THE BLACKFACE SHEEP BREEDERS ASSOCIATION



Congratulations to the new President John Hamilton, Aikengall, Innerwick, East Lothian. (Pictured above with Johnny).

We are delighted to have become sponsors of the Blackface Sheep Breeders Association and to celebrate this we have a fantastic photo taken at Troloss in a field of Duart for our 2015 Castle Mixture catalogue front cover.





FUTURE BREEDING PROMISES MORE FROM GRASS

As an independent grass seed business we are in the fortunate position of enjoying a close working relationship with all the key breeders that produce grass and clover varieties for our market. One such business is Germinal Seeds, who market the IBER range of high sugar grasses.

The opportunity to make more milk from grass has never been greater for UK livestock farmers.

This statement is underpinned by continuing advances in the dry matter yield, the quality, and the scope for greater spring and autumn production in ryegrasses, which are there for all to see in the independently compiled Recommended Lists.

Progress has been particularly pronounced in the last decade, with significant strides made in quality criteria such as D-value in particular, and according to Iain Eadie (pictured below) of Germinal there is every likelihood that farmers can expect much more to come.

Iain Eadie's conviction stems from Germinal's longstanding relationship with IBERs Aberystwyth University, where progress in ryegrass breeding over a 95 year history is unrivalled anywhere in the world.



'Breakthrough varieties like S23 through to the first Aber High Sugar Grass AberDart are landmark events in the history of agriculture, and I believe grass breeding at IBERs will continue pushing the boundaries of science.'

'It is now over thirty years since ryegrass breeders started thinking beyond dry matter yield and agronomic factors to consider the importance of quality, and in the last ten years the emergence of high sugar grasses is a great example of the benefits of this. Now, the same breeding techniques that have allowed dry matter yield to be improved alongside higher water soluble carbohydrate (sugar) content are being used to focus on other key nutritional characteristics.'

Plant breeding techniques used at IBERs allow the breeders to work with relatively small numbers of plants and yet select for multiple traits concurrently. It is more akin to what a dairy farmer would understand as a pedigree breeding programme, where the mother plant equates to a bull of known genetics and is bred to many different cows (or pollen donors in the case of the ryegrass).

'Alongside water soluble carbohydrate (sugar), protein is also an important component of grass,' continues Iain Eadie. 'Ruminants are poor converters of grass protein into meat and milk, so a large proportion of the protein in forage is not used by the animal and excreted causing environmental pollution.'

'In more recent years, IBERs plant breeders have been able to select for improved protein-to-energy balance in the grass. The combination of higher WSC (which provides more readily available energy in the rumen) without a proportional increase in crude protein means more of the nitrogen released from the breakdown of protein is used by the rumen microbes for the production of meat and milk, and less is excreted and wasted. So, the grass exhibits a far better protein-to-energy balance, resulting in significantly greater efficiency. This approach is especially exemplified in the intermediate diploid Aber HSG variety AberGreen.'

Fibre is another nutritional component that farmers will be familiar with, and is also a characteristic in IBERs' future breeding plans.

'One of the targets at IBERs is to enhance the fibre balance within newer varieties,' adds Iain Eadie. 'This helps to ensure sufficient 'roughage' is present to retain forage within the rumen long enough for microbial protein synthesis to occur, and also makes available a better proportion of secondary energy sources in the form of more slowly released NDF and ADF.'

'The Aber HSG variety AberWolf is the most recent high sugar perennial ryegrass onto the Recommended List and the highest performing yet across many key parameters.'

Plant breeders at IBERs also have the benefit of working in harness with other scientists, including ruminant nutritionists. This approach is exemplified in another new breeding project this is looking at the lipid content of grass. Called LipiGrass, this project is a collaboration between Aberystwyth University, Germinal and HCC, funded through the BBSRC Stand Alone LINK scheme to improve the fatty acid content and composition within perennial ryegrass.

'This work on lipids continues the quest for better nutritional quality in grass, but without any detriment to all the other important yield and agronomic factors that allow livestock farmers to maximise production from homegrown feed,' concludes Iain Eadie.

'As we are seeing with the higher water soluble carbohydrate ryegrasses (Aber HSG), improved nutritional quality leads to greater efficiency in utilisation by the animal, with benefits going beyond animal performance to impact positively on the environment too.'

This year we will be including the following IBER varieties in our mixtures; where appropriate; AberAvon, AberBite, AberChoice, AberClaret (red clover), AberEcho, AberGain, AberGreen, AberMagic, AberPearl (white clover) and AberWolf.



EAST OF SCOTLAND GRASSLAND SOCIETY

In January, Johnny was delighted to be appointed the Chairman of the East of Scotland Grassland Society

There have been great farm visits throughout the year starting, in January, with the Mitchell family at Drumdree in Fife. This was followed in the afternoon with the AGM and then we had a presentation on soil by James Bretherton of Agscope, which was very informative.

Then in May the two farms that were visited were Alistair Fraser, Newton of Idvies in Letham and Geordie and Julie Soutar, Kingston Farm in Kingsmuir.

In September, the final two farm visits of the year were to William Hamilton & Son, Meldrum, Blairdrummond and William Dick & Sons, Mains of Throsk, Stirling.



A sunny farm tour at Newton of Idvies in Angus.



Andrew John Best teaching the school children about grass.

EDUCATIONAL DAY

In May, we had a great day at the annual Border Union Agricultural Society's Schools Countryside Day, which was held at Springwood Park, Kelso.

More than 1,200 primary 5 school children from 60 schools from across the Borders came to Springwood Park to learn about many different areas including sheep shearing, sausage and haggis making, weaving and they could even milk a model cow.

Our stand was designed to teach the school children about grass. We had examples of different types of grass for them to look at and touch as well as tubs of fresh grass, hay and silage to show them the different ways grass can be utilised. We also had two mounds of grass laid out to demonstrate how much grass a sheep eats and a cow eats in one day. We are looking forward to supporting the Educational Day again in the future.

SCOTSHEEP

On the 4th of June Scotsheep was hosted by the Macfarlane family at Quixwood in Berwickshire.

We conducted a rejuvenation trial as part of the farm tour. The field was an underperforming old sward that was deemed too stony for ploughing. The 45 acres were split into 9 blocks with a different mixture being sown into each.

A Shakerator was used to elevate the compaction issue and lime was applied to take the pH to 6+. The grass was sprayed with Diquat prior to sowing and was sown in August 2013 using a Moore Unidrill. A further spray of Diquat took place two days after sowing. No bagged Nitrogen was applied.

A falling plate meter was used to gauge grass growth and there was certainly a marked increase in yield compared to the old sward, as well as highlighting interesting differences between the mixtures. The SAC carried out fresh weight analysis that highlighted that both ME and protein levels had risen significantly.

Whilst it was not a replicated trial, it did highlight differences in performance and helped to illustrate some of the benefits of oversowing.



Johnny with customer, Murdo MacLeod at the trial plots at Quixwood. Mr MacLeod travelled from the furthest northern point of Isle of Lewis, Ness, to Berwickshire to enjoy a nip of Johnny's 'Afore Ye Sow' whisky at the trial plots.



RNAS GRASS TECH

Held at Mr Anderson of Plewlands Farm, Elgin, courtesy of the Anderson family. On display was a whole range of the latest grass and silage machinery being demonstrated on silage fields.

The SAC also sowed plots of grass to demonstrate the properties of different varieties which are first choice on their recommended list. The farm tour was very popular with the visitors and the grazing and silage fields were looking exceptional.

Mr Anderson uses bespoke mixtures from Watson Seeds to produce outstanding quality grazing and silage for his stock.

Seed supplied through Harbro Ltd.

BRITISH GRASSLAND SOCIETY

We were delighted to be a sponsor of the BGS summer meeting hosted by Norggrass. It was certainly a brilliant couple of days where we visited a number of excellent farms and were thoroughly entertained throughout the North East of Scotland.

The tour began with Gregor Colquhoun of Dendoldrum who showed us his modern purpose built dairy system. He explained how conserved grass and cereal crops form the main basis of the diet in his efficient enterprise. We were undoubtedly impressed by the 200 cow pedigree Aberdeen Angus herd managed by John Lohoar for the Macphie family in the beautiful estate of Glenberrie. Tour Chairman Donald Barrie was then kind enough to talk us through his evolving farm system at Glensaugh.

Day two began with a panoramic view of the Gordon family's 1,250 acre upland unit of Wellheads. They have a herd of 220 Limousin X cows and a flock of 600 Scottish Mules and 260 Texel cross ewes. The Ingram family hosted us at Logie Durno. It was interesting to hear how they manage their low input clover rich grassland. Their principal output is top quality performance recorded commercial rams, which are mostly sold on farm. George and Bruce Walker showed us round their farm at Newton of Lewesk. They successfully finish 1,200 head of cattle and 2,500 lambs per year.



Our final farm visit was to the Barron family at Darrahill. It was clear the amount of work they had put in modernising the dairy farm with a new rotary parlour, slurry storage system and other energy saving devices that are designed to reduce the carbon footprint of the business. The tour ended with a visit to the SRUC grass and clover trials. It gave us an opportunity to see some of the new varieties that will be incorporated into your mixtures next year.



John and Marion Tilson with their daughter Wanda.

WEDDERLIE CENTENARY OPEN DAY

In August, Marion & John Tilson, along with their daughter Wanda Hobbs, opened their farm up to celebrate 100 years of their Aberdeen Angus herd.

It was a fantastic day with more than 1000 visitors to the farm all keen to get an insight into the success of Wedderlie Farm. The aim was to demonstrate what the Aberdeen Angus breed, with its easy-keep characteristics, can achieve on a typical Borders hill farm.

There was a farm tour around Wedderlie as well as a number of different activities such as a stock judging, sheepdog handling, a display by Lauderdale Foxhounds and a charity auction in aid of Scotland's rural charity, RSABI and MacMillan nurses to make for a very enjoyable day.

We are proud to supply the Tilsons with their grass and forage seed. They are keen users of Mingary and Fyvie.



FARMING FEATURE - RORY YOUNG

Well no one can say they will look back with any fondness to the winter of 2012/ 2013, or the late Spring that did not see grass growing even in late May. However, plans for the next winter had to be made to refill silage pits and cover forage requirements.

This was the predicament for Mr Rory Young of Congeith Farm, Kirkqunzeon. Rory required his silos to be filled for the coming winter, as well as providing a forage crop to out winter spring calving sucklers.

At the suggestion of our seed specialist Andrew Best, Rory undersowed a crop of spring barley with the rape/kale hybrid, Redstart. The idea was that the whole crop would provide the bulk to fill silage pits for the winter, whilst the rape/kale hybrid with its ability to regrow after cutting would provide the out wintering crop. It was also hoped that the Redstart growing with the barley would, at harvest, add further bulk, plus protein content to the whole crop. (The leaves are about 18% protein).

The timetable for the dual crop establishment was as follows:

- Seed rate of barley 50kg/acre drilled on the 25th May. Sowing had to be delayed to make certain the risk of frosts was reduced as the Redstart would be susceptible.
- Redstart 2.8kg/acre drilled on the 25th May
- Seedbed fertiliser 7.5t/acre hen pen
- Top dressing 100 units of CAN
- Sprays: Round up and Clobber for leather jackets in the seed bed, then Decis 7 days prior to harvest to control large white butterfly.
- Fertiliser applied after whole-crop 100 units CAN.



After the field was cut the lifting commenced on the 7th August and was ensiled.

The resulting whole crop was analysed and the result was as follows:

Dry Matter	27.1%
ME	9.6mj/kg
Crude Protein	13%
Starch	16.1

After a few weeks the Redstart started to tiller. The growth stage of this plant is far more advanced than sowing after the harvest of the whole-crop. It is questionable whether the Redstart would have been a viable crop, as the autumn was so wet



Crop on 19th June 2013



17th September, Rory Young inspecting the Redstart.



Crop on 30th July 2013

Using the superb regrowth of the Redstart, Mr Young was able to double crop fields to provide two types of feed for his unit, namely bulky whole crop, plus a useful winter fodder for out wintering animals. You could argue the whole crop should have had higher starch content and indeed this would have occurred if we had left the field longer before harvest. However, the delay would have resulted in a more backward Redstart and less of a winter feed.

In practice the crop fed out better than the results suggested, especially in terms of ME. The nutritionist built a diet based on the analysis as listed above and the calf's increase in weight exceeded the parameters of the ration. Suggesting the Energy content/ Starch was higher than the results would suggest.



What's the Potential for Fattening Animals at Grass?

During the grass growing season of 2014 John and Amanda Paterson of Hartbush, Dumfries, decided to put into practice a paddock system of rearing animals (rotational grazing) encouraged by visiting another Dumfriesshire unit, belonging to Douglas and Lorna Greenshield, South Mains, Sanquhar. Albeit this grazing system did not at first seem suitable for Hartbush, and certainly the resolve of whether or not to continue with this system was tested in the early stages of the grazing season.



Why rotational grazing?

"The lowest cost of feeding our animals is by the method of grazing, using the grass at its highest feed value" from BGS Occasional Symposium No19

"Grazing" editor John Frame, BGS 1985.

- Higher digestibility and ME from rotational grazing.
- Gives higher animal performance.
- Cattle can't select their diet as much as sheep.

Financial benefit

- An extra 25kg at grass will reduce production costs by around £60/ha
- Rotationally grazed grass is higher quality and has higher utilisation than set stocked grass thus lower cost/kg/DM
- Less weight to gain on more expensive diet in sheds

The plan at Hartbush was to graze 55 heifers with an average weight at turnout of 360kg on a 8 ha field, from the 1st of May. This had been newly sown the year before with the Watson Seeds, Dundas Grass mixture. The total weight at turnout was 20 tonnes, which was equal to a daily feed demand of 500 kg Dry Matter.

This field was split into 8, 1ha paddocks using an electric fence and with a water supply provided for each paddock.

Looking back, mistakes were made with turnout being two weeks too late. The net result of this was too much grass available for grazing all at the same time. As the grazing commenced the cattle were moved every four days.

Unfortunately, a combination of rapid grass growth caused by excellent grass growing conditions and very heavy rain over the weekend of 9th to 11th May meant that the grazing conditions were getting very difficult. The result was the cattle were unhappy and John Paterson even more so, at the condition of his newly reseeded sward. The problem was later assessed as paddocks being too narrow and lateral therefore the cattle always went to the top of the field to lie which caused poached grass and soil contamination. After a few conference calls the cattle were given paddocks 4-8 on the 11th May, they remained here until the 22nd. When the paddock system resumed again the paddocks were then made into 1 hectare squares.

Grass that was starting to get away from the stock was shut off and 2 hectares was baled for haylage with 29 bales at 700kg approximately. This corresponded with the first two paddocks that were grazed at the start of the grazing season.

From early June cattle moved daily until end of July, then back to 2-3 day moves until housing on 1st September. During early July all paddocks were mown pre-grazing which allowed the cattle to eat all the grass instead of more selective and therefore encouraged pre-growth evenly over the whole paddock.

The cattle stayed in the paddock system one month longer than previous years and therefore an additional saving of one months hard feed and bedding in house. The cattle did not receive any additional feed at grass and again previously they would have been given 2 months additional feed at grass prior to housing.

To summarise, the paddock grazed cattle grew at 0.93 kg/day from May 1st until Sept 1st, which compares with a similar group of set stocked which achieved 0.62 kilos per day.

John also tried some rotational grazing with cows and calves at foot and rotational grazing in-calf cows on his hill. He has seen a great benefit in both cases of quick fresh grass rejuvenation and the utilization of the cow dung and urine will help improve the soil structure as fertilization application is difficult due to the steepness. John also worked very closely with Rhidian Jones, Sheep & Beef Specialist, SAC Consulting, who both works and talks passionately about the benefit of utilizing your grass to the maximum through paddock and rotational grazing.

Next year the plan will be to have the animals at grass sooner and leave them out longer. John would also like to expand his grass utilization and hopes to rotational graze his sheep and see if this would benefit fattening his lambs sooner.

The benefits of rotational grazing are as follows:

- 1 Improved grazing over a longer grazing season
- 2 Better livestock performance.
- 3 Higher retention of productive grass varieties over weed varieties.
- 4 Increased clover content.
- 5 Reduced need for reseeding.
- 6 Improved soil structure.
- 7 Lower purchased feed costs.

You can follow this ongoing project further as the paddocks will be monitored and discussed as part of the QMS Monitor Farm Project at Hartbush and reports are available on the QMS web site.





FARMING FEATURE - GRAHAM LOFTHOUSE

Bankhouse Farm is a small family run unit of 108ha owned and 17ha rented seasonally. It carries 470 Easycare ewes and 75 suckler cows and followers all home bred and finished. It is a LFA farm in an upland area.

'kg produced per hectare is essential to profitability'

This requires high kg of Dry Matter produced per hectare to sustain a high stocking density through the summer and to feed it through the winter at least cost on a forage based diet. Both diets have to be high energy and Protein to sustain high growth rates in lambs and cattle.



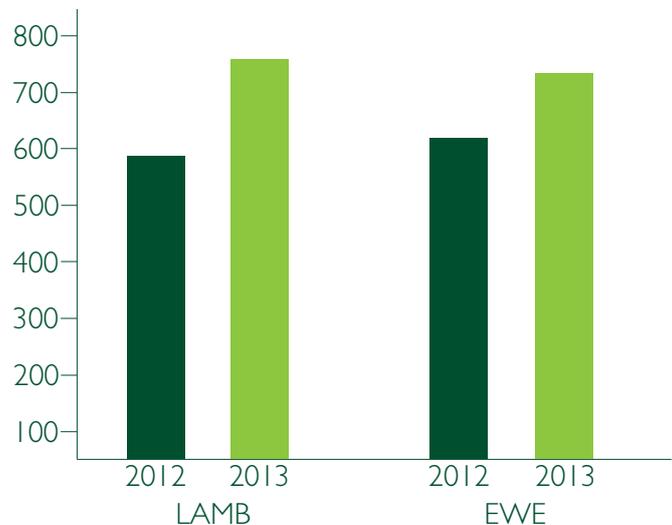
Graham Lofthouse, Bankhouse Farm, in a field of his specially modified Watson Seeds mixture.

I see grass as the most underutilised and prioritised asset on most farms, capable of producing at least 10 to 50% more than it currently does using the correct grazing system and grass varieties. We have been able to increase output from our grass by 21%. I have always been interested in grass varieties and have been able to have several of Watson Seeds mixtures modified by them to

suit specific environmental and climatic situations on our farm with some of the best late heading diploid high sugar grasses available which have increased sward density to allow for an increased stocking density per hectare without increased compaction. Digestibility has increased with these mixtures also allowing for improved feed conversion efficiency and improved silage quality. This has allowed the highest output from our area to be achieved at least cost per KG SOLD.

A target in 2012 was to produce the ewes own body weight in lamb per hectare grazed. This was achieved in 2013 with 758kg of ewe carried per hectare and 763kg of lamb produced.

BANKHEAD KG/HA PRODUCED



We hope to be able to make progress in increasing daily live weight gain still further in the near future and see our relationship with Watson Seeds, with their expertise and willingness to modify mixtures for us, only improving that possibility.

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