



Agri & Rural Affairs Study Tour

“Argentina 2014”



Sunday 30th November – Saturday 12th December 2014

Prolog

Argentine agriculture seems a world away from the practices we are familiar with at home. This is what attracted us to this vast nation, with its expansive farms and colossal production placing it on the export leader board for many farm products. Does this pose a threat to European agriculture or should we be learning from this relatively young agricultural powerhouse? The following pages of this report should suggest the answer.



Scott Somerville, Alan Bankier & Robert Marshall

Over the course of our 12-day trip covering 3,200km of the Argentine countryside we learned of extremes of climate, fiscal instability, a unique land tenure system, debilitating taxes, corrupt politics, red tape and poor infrastructure. Despite these hurdles we saw the attitude of a young farming sector shine through with investment, growth, expansion, co-operation, innovation and increased yields.

The report to follow does not paint a picture of agricultural excellence but will highlight the practices employed by those farmers we met who were in pursuit of making a pound.

From such a brief encounter with such a vast nation our group of 16 managed to cram in oodles to our itinerary. As a result we all learned something that shall be brought back to our respective agricultural careers.

To travel to a country that few of our peer will ever have the chance to explore in such detail and privilege was a great honor and we are indebted to our sponsors, our hosts during the trip and our attentive and most hospitable guide Alan Cameron for all his help leading up to and during the trip.

Please enjoy reading this report,

Scott Somerville
Agri & Rural Affairs Chairman

Content

THE GROUP	4
DAY 1 (MONDAY 1ST DECEMBER) TRAVEL, CAMERON FARMING TOURS & BUENOS AIRES	5
DAY 2 (TUESDAY 2ND DECEMBER) LINERS CATTLE MARKETS & CHS INC PORT	6
DAY 3 (WEDNESDAY 3RD DECEMBER) ELTREBOL NO TILL FARM & PIG UNIT	8
DAY 3, PM (WEDNESDAY 3RD DECEMBER 2014) CREA & ELTIMBO CATTLE FEED LOT	9
DAY 4 (THURSDAY 4 TH DECEMBER) LA VIGILANCIA DAIRY	11
DAY 4, PM (THURSDAY 4TH DECEMBER) ABBATOIR AT SANTA ELENA	11
DAY 4, EVENING (THURSDAY 4TH DECEMBER) PARADISE MIXED FARM ENTERPRISE	13
DAY 5 (FRIDAY 5TH DECEMBER) LOUIS DREYFUS PORT	14
DAY 6 (SATURDAY 6TH DECEMBER) POLO AND TANGO	15
DAY 8, AM (MONDAY 8TH DECEMBER) ARABLE FARM IN NECOCHEA	17
DAY 8, PM (MONDAY 8TH DECEMBER) FLORES CHICHAS BEEF UNIT	18
DAY 9, AM (TUESDAY 9TH DECEMBER) DAIRY IN TANDIL	19
DAY 9, PM (TUESDAY 9TH DECEMBER) BEEF RANCH NEAR AZUL	20
DAY 10 (WEDNESDAY 10TH DECEMBER) MOLINO CONEPA FLOUR MILL & PASTA FACTORY	22
DAY 11, AM (THURSDAY 11TH DECEMBER) DONMARIO SEEDS	23
DAY 12 (FRIDAY 12TH DECEMBER) CABANA PIEDRAS BLANCAS GOATS	24
ACKNOWLEDGEMENTS.....	25
FURTHER INFORMATION	25



Following this report, if you would like one or more of the group to come and deliver a presentation to your business / group please contact Rebecca via rebecca@sayfc.org or 0131 333 2445

The Group

All members of the group are involved in agriculture either by directly working in the sector or still in education, completing a relevant qualification that will support their future in the industry. Some are directly farming our land whilst others are in careers supporting those at grass root level such as agronomists, consultants and sales merchants. Between the group the member backgrounds cover sheep, dairy, beef, arable including vegetables, diversification and renewables.

All are members of the Scottish Association of Young Farmers, and represent a wide geographical spread of Scotland.

Name	Club / Details
Scott Somerville	Carluke YFC / SAYFC Agri and Rural Affairs Chairman
Rebecca Dawes	Kinross JAC / SAYFC Comms and Rural Affairs Manager
Sarah Allison	Lanark YFC
John Anderson	Halkirk YFC
Ranald Angus	Bower YFC
Alan Bankier	Carluke YFC
Fraser Campbell	Bankfoot JAC
Stuart Cowan	Annandale YFC
Andrew Dalgarno	Turriff & District JAC
Elaine Henderson	Forfar and District JAC
John Howie	Crossroads and District YFC
Isla King	Reston YFC
Robert Marshall	Mid-Deeside JAC
Jane Orr	Bell Baxter JAC
Robert Ramsay	Crossroads and District YFC
Alison Ritch	Sandwick YFC



Left to Right

Ranald Angus, Alan Bankier, Robert Ramsay, Andrew Dalgarno, Fraser Campbell, Isla King, Jane Orr, Sarah Allison
 Scott Somerville, John Howie, Alison Ritch, John Anderson, Elaine Henderson, Robert Marshall, Stuart Cowan and Allan Cameron
 Taking the photograph – Rebecca Dawes

Day 1 (Monday 1st December)

Writer: The Group

After nearly 16 hours the group arrived in Argentina. Departing from Edinburgh Airport we flew to Paris for our connecting flight to Argentina. The time difference is minus three hours, temperature 12 degree celsius and every member has had their photograph and finger prints taken as part of the strict security in Argentina!!

On arrival we were met by Allan Cameron who will be our “tour guide” for the two weeks. Allan explained how he has been a farmer in Argentina for nearly thirty years both managing and renting land. He is a decedent from a New Zealand Great Grandfather whose father had moved from Ardnamuchan Point in Scotland in the 1860's. Following in his Grandfather and Father's footsteps he attended secondary school at Old Fettesians in Edinburgh from 1977 until 1981 before going to Agricultural College in Victoria, Australia to complete a degree in Farm Management. Today he owns land in collaboration with his two brothers and rents additional land in partnership with two friends which the group will find out more about during the trip. To complement the farm operations he runs his own Farm Tour business in Argentina involving farms, Agri Toursim and social/historical attractions such as Iguazu Falls and the Glaciers in Patagonia.



After the short journey from the airport to the countries Capital of Buenos Aires, the group were able to enjoy the day getting use to the climate by seeing the sites on a bus tour. With 28% (12 million) of the countries population (42 million) living in the city it is very busy and quite compact with buildings making use of height and plenty of construction in action as more property is built to meet the increasing demand.

The group learned that the streets are made with bricks that were originally used to weight down the ships, and the building are traditionally painted with a pink coating to protect the houses from moisture. However many tell a “romantic” story of how white wash was mixed with the blood from bulls to shield the properties.

It was not long before the group then got to enjoy some of the fabulous cuisine in Argentina where the menu options included beef, chicken or fish but unsurprisingly the majority opted for a “small” steak that turned out to be 10oz – something that would become familiar over the next fortnight.

Day 2 (Tuesday 2nd December)

Writer Alison Ritch (Sandwick YFC)

The group boarded on the bus at 07:00 bound for Liners Cattle Market. To be in a city and at a cattle market felt rather strange! The market was founded in 1901 and now forms 34 hectares of Buenos Aires City dealing with an average of 10,000 head per day. The cattle we seen mainly comprised of Aberdeen Angus and Hereford. In the one hour of being in the market 7,500 cattle were sold. Watching the buyers move from pen to pen on horseback and the cattle being herded from the pens to the weighing facilities by men and horse was very different to the system we are familiar with in Scotland.

Cattle arrive at Liners through the night and batched according to weight, there could be more than one seller's cattle in each pen if they are of similar weight. The auctioneer walks along the gangway selling each pen of cattle as he comes to it. The buyers are bidding for a price per kilo as in Scotland.

However the difference being that the pen is only weighed after the hammer has gone down. Each pen is taken across to the weigh bridge and price worked out; live weight x price per kilo = price to seller.



There are eighty agents registered at Liners conducting transactions between the seller (farmer) and the buyer being the supermarket(s). Each agent could have approximately five buyers therefore totalling in the region of six hundred and ten buyers in total. All the cattle marketed here are for slaughter and must be no lighter than 300kg. There are penalties for the seller should their cattle be lower than the legal minimum of 300kg. There had recently been a pen of cattle only realising 292kg per head of which the farmer received a penalty. Once a beast is at Liners it will not be able to return to farm.

It was then back to the bus to begin our 500km drive north. Our first stop was the port facilities on a River Payana; CHS Inc (CHS). There are approx. 15 ships per year that come into the port. The grain/soya is analysed on arrival prior to being accepted, stringent testing takes place including humidity, foreign bodies and insect presence. If there are any rejections at this point it would result in the grain/soya being returned. If humidity is just slightly over 14% for wheat and 13% for soya the farmer may accept a discount and the load then accepted.



The grain is stored on site until shipment, there are two storage sheds both capable of storing 14,000 tonne. CHS exports soya bean, wheat, maize and barley to China with soya bean meal to Europe, the port also exports some rice. When a ship is being loaded the grain is moved from storage to the ship by a belt system. It can take two to three days for the loading of each ship to be complete. The river level at CHS is shallow therefore ships are partially loaded with 35,000ton and then sets sail elsewhere to be filled. However when river level is high they can fill the ship with 45,000 ton which allows the ship to go directly overseas. With the scale of the operation it was amazing that there is minimal labour. The belt system is overseen by the worker in the cabin which overlooks the loading of the ship.

It was then back on the bus to head further north to our second stop. Lex farms 2000 hectare mainly of crop having moved twelve years ago from a cattle system. To Lex crop rotation is very important to his no till farming operation. The farmers' priority is to look after the soil, therefore to care of the soil rotation is required; his crop rotation includes wheat, soya and maize. Lex referred to his farm as being a "big veggie garden". Ploughing is still very much a spring job throughout Scotland; however at Eltrebol it is no till. On the other hand weeds is an issue Scotland and Argentina share but there beginning to be difficult to control with some weeds being resistant to round up. 50% of his farm has central pivot irrigation to gain the potential tonnage of production for each crop. This is seen by the increase of production as detailed below



Crop	No water	With water
Maize	6.5 tonne	9 to 11 tonne
Corn	2.6 to 2.7 tonne	3.8 to 3.9 tonne



Unfortunately the farmers or not paid on quality therefore they are very much looking at increasing yield.

The farm is in a high rainfall area with soil being at a pH of 5 to 6. The soil is a heavy clay making cropping by no till farming variable. Keeping on the subject of soil draught solves compaction, cracks caused by draught can be as wide to fit a hand or arm down. Paying attention to the whole plant whether it be wheat, soya etc is now looked upon as being very important rather than just the leaf as done previously.

Each crop is cared for with insecticide and fungicides being applied depending on what is found to be present. Liquid nitrogen is used on the wheat and corn with solid phosphorus also applied. With half the farm being under irrigation records are kept detailing the volume of water each crop receives.

There is five full time staff on the farm with an additional two at planting time and contractors are also taken in when required. The boys were very taken with the machinery Lex had on show for us. The tractors used for sowing are 170/180 hp with smaller jobs undertaken by 60hp tractor(s).



The final bus journey for the day was to La Paz, our base for the next few nights. The group was able to reflect on the three very interesting visits today over dinner.



Day 3 (Wednesday 3rd December)

Writer Andrew Dalgarno (Turriff & District JAC)

With clear blue skies and temperatures close to 30 degrees Celsius, it seemed like the perfect agricultural conditions for bumper crops and an easy farming lifestyle. However, like agriculture in Scotland, Argentinean farmers are also faced with their fair share of problems – both environmental and political. Over the weekend, there was more than 140mm of rain near the town of La Paz, in the province of Entre Rios. This left many muddy gateways which gave us all a reminder of what farming usually is like back in Scotland! These heavy downpours lead to soil erosion problems which is the main reason as to why a no till cultivation policy is used for sowing all the arable crops over here. Although there are these heavy downpours, the weather can be unpredictable and the hot temperatures soon dry up any moisture there is. This is why irrigation is very important to improve yields. It is not just the changing weather that makes farming difficult over here, the governments view on agriculture puts the farmers under a great deal of pressure with farmers having to pay a 35% export tax on any soya beans they export. It is not just the soya beans that are taxed, there is also a 23% export tax on wheat and a 20% export tax on maize. On top of these export taxes, farmers still have to pay the normal income taxes as well.

Just along the road from the town of La Paz, we went to visit a 2350 ha mixed arable farm with 1700 ha being used for cropping growing wheat, maize, soya, barley and rice. The remainder of the land is used to rear cattle. Of the 1700 ha used for arable production, 890 ha is irrigated using 7 centre pivot irrigation systems. These irrigation systems are essential for supplying the crops with the water they need, with rice receiving more than 500 mm of water in its growing season. These centre pivot irrigators can also be used to apply fertiliser as well. The farmer then went on to explain to the group that growing rice with centre pivot irrigators was quite pioneering with this being the first year he had done it but he was worried about the irrigators getting stuck in mud due to the sheer amount of water being applied to the rice. We then stopped to look at the rice which was a GM variety which had resistance to ALS herbicides. The majority of the GM crops in Argentina have resistance to Roundup (Glyphosate) which has led to problems with the increase in weeds building up resistance to Roundup. This is why the rice has resistance to a selective herbicide which we usually use for weed control in cereals back in Scotland.



Although Argentinean farmers have the ability to use GM varieties, the yields are not that great compared with what we can achieve back home. However, the only crops which were GM were soya, maize and rice. Wheat and Barley are still conventional because of their close connection to the human food chain. The group learned that the inputs to grow a crop in Argentina are far less, with the soil being naturally high in potash and crops only ever receiving phosphate and nitrogen along with some trace elements. We also learned that there were fewer fungicide sprays applied to the crops than what we typically apply back home. However, all this was reflected with the yields. The average wheat yield with no irrigation was 3.5 tonnes per hectare. Although the yields are lower than in Scotland, there is the opportunity to get 2 crops in one year.



After the tour of the farm, it was then time to have a fly cup and a piece. Even the farmer's pet alligators had a chance to get something to eat, but thankfully all of us made it back onto the bus after having a snappy time taking photos!

It was then time to head further along the road and we stopped at a large arable farm with its own piggery. The arable side of the business provided the corn for the pigs diet which accounted for 60% of the ration. We soon learned that the farm was quite self-sufficient with the farm having its own feed mill on the farm for mixing up the feed for the pigs. The feed ration varied depending on the growth stage of the pig and whether it was being fattened or not. The farm had a herd of 340 Landrace/ Yorkshire sows with all the offspring being kept for replacement sows or being fattened on farm. All of the pigs on the farm were kept on slats with the



sows being kept in sow stalls all of the year apart from when they are about to give birth. Once the sow has given birth, she is with the piglets for 21 days before they are weaned and she is served by artificial insemination to become pregnant again. All of the sows are inseminated artificially, using Duroc stud boars kept on the farm.

Once the piglets are weaned, they are kept in groups with the ration changing as the pig gets older. The pigs destined for fattening are fattened on site with the pigs leaving the farm at 90 to 120 kg live weight. The farmer explained that it cost him 800 pesos to produce a pig and he was selling it for 1600 pesos. However, the mortality rate was very high with a mortality of 6-8% in the first 21 days with the high temperatures causing a lot of the problems. The pig industry is quite strong at the moment with lots of investment and new sheds going up which has been helped with the government credits encouraging the pig industry. This has also helped to keep a high demand for maize in the country.

Day 3, PM (Wednesday 3rd December 2014)

Writer John Howie (Crossroads YFC)

In the second half of our day we met with an associate and friend of our guide Allan. Her name was Sandra and she took the time to explain an organisation which she is a member of and is a major part of agriculture in Argentina- CREA. This stands for Regional Consortiums of Agricultural Experimentation and is a farmer's member institution which has a national membership of 3000 people. Originally formed to help try and solve the wind soil erosion problem in Buenos Aires 53 years ago, today the organisation aims to collate all of the information from Argentina for a rich basis of knowledge sharing to allow the agricultural sector to move forward as a whole.



There is a structure within the group similar to that of SAYFC with members, treasurer, presidents going from district to region to national. The CREA group at club/group level contain 6-15 members who spend a day on a members farm going around and learning. They then divide in to two groups for an hour and a half working to solve a set of questions set by the farmer. The two groups then come back and give one answer per group to come to one final answer. The group plan for the year ahead spending one day a month on its members farms covering a range of issues within agriculture and even out with agriculture.

The group does not involve itself within Politics however they do have a noticeable influence. For example picketing for 3 weeks to stop arable production as the Government taxes were crippling. The information the group produces is used by organisations which feed through to government also. Such is the success of CREA there are now versions starting up in neighbouring countries- Uruguay, Paraguay and Bolivia for example.

Our second visit in the afternoon was to Eltimbo feed lot, in La Paz. Here, like so many of our visits we were greeted by the manager due to the farmer being away on business. The manager gave us a very clear overview of the feed lot, highlighting both the positives and the negatives.

We began at the lot's feed store where we learned that all feed is purchased and comprises a mix of maize and sorghum silage, soya bean pellet, bruised corn and sorghum, calcium, salt and urea. Water is then added to become 10% of the feed mix as they believe this energises the meal. Due to the central location of the feed lot there was an availability of many resources including rice husks and woodchip for fibre. The main cost to the business is haulage per kilometre. At full stocking capacity there will be 9,000 cattle in the feed lot which used to take 4 workers to feed. However with investment in infrastructure like concrete roadways, this is now a one man operation. The feed wagon is filled 20 times a day, holding 7 tons a load, running on a 120hp tractor taking 8 hours per day.



We then moved on to view the cattle in the pens and were told that the feed lot was built on too flat an area hence the reason for the slurry channels and the man-made mounds in the pens, which all add more cost. The pens were 50m long by 60m deep holding 350 head of cattle. The cattle were of similar size and stage however there was a mixture of bulls, bullocks and heifers in the pens which the manager explained was less than ideal.

There was no preference of breed as the Bos Indicus does not suffer from acidosis and handles the climate well, however the Herefords and Aberdeen Angus' fatten quicker and easier. Typically all cattle are bought in at 5-6 months old at 150kgs and fed at a target of 1.2kg daily live weight gain for 45-90 days. The feed lot is undergoing some change in method by growing out some of the 150kg calves on rented scrub land fed on a dry ration and then entering the feed lot when they get to 250kg. The manager was budgeting for 6kg of feed to produce to 1kg of meat and tried to manipulate the cattle's feed intake by having lights on at night and driving the feed wagon around the lot when empty as this encourages cattle to come forward to the feed trough.



Overall the manager clearly demonstrated his passion for what he did wanting to improve quality in everything and to continue to produce great fat cattle. Last year the feed lot turned out 3,500,000kg of beef and it was a very impressive system to see.



Day 4 (Thursday 4th December)

Writer Alan Bankier (Carluke YFC)

This morning saw us rise to another glorious day in South America. We set off at 7:45 to our first dairy visit and my particular excitement started to build. The farm La vigilancia managed by Fedarico extends to 2000ha growing a mixture of crops. At peak season they milk twice a day 1250 Holstein cows through a 30 a side swing over parlour with around 1700 head of cattle in total at the home stead. This vast block calving grazing based system is unusual to other dairies in the area as here he only milks the cows who are in their 2nd lactation onwards with the heifers being milked just across the road at his secondary steading, this is due to the market, it is required for which is baby milk and needs to achieve consistent low cell counts which are never above a 250 average. Labour you may have gathered is cheap here in Argentina due to this fedarico has an impressive 30 staff which all have dedicated jobs to specialise in daily, milking is done at 4am and 3:30pm his team are unable to see the herd below an average 400 scc and 25litre daily yield.



The facilities and attention to detail throughout the farm were of a very high standard and because of this they have managed to pass all legislation for access to export liquid milk to the EU this was a major stepping stone for the farm as it obviously broadens there market however so far has seen them no change in there price which currently stands at 3 peso 20 cent roughly working out at 32 cents (24p/ltr).

With regards to replacements and general young stock all the bull calves are kept only to around 120/150kgs and then sold to a local feed lot for fattening. Most of the heifers calves are reared in crates for 60 days then put out to pasture with concentrate made available, growth rates don't seem to be of crucial importance and heifers are calving down around 27 months which he does plan to tighten up. It is very difficult to condense our experiences so far in these few words and I look forward to composing a better more detailed report on my return.

Day 4, PM (Thursday 4th December)

Writer Isla King (Reston JAC)

On departure from La Vigilancia most were glad to escape the sun in exchange for the air con of the bus, surprisingly we aren't used to this heat! Our tour took us 30km South of La Paz to an abattoir located at Santa Elena. Having personally visited an abattoir within Scotland I was interested to use this experience to make comparisons. The abattoir was built on a 17 hectare plot in 1890 and slaughtered 1000 head of cattle per day up until it was closed in 1993.



We were able to obtain an insight into the methods of practice used during the years the plant was actively slaughtering cattle. Each animal was required to be washed before slaughter, with Government bodies imposing a regulation that's 1100 litres of fresh water was used for each animal, the process reminded myself of cattle sized sheep dip! The animals were stunned using an automatic hammer before a precise cut was made to the throat, hanging on one leg similar to the UK. However a method was also used for roughly 300 cattle daily based on religious rituals whereby the throat was cut using a singular motion.



Every part of the carcass was utilised, with even the bone meat being used in poultry feeding. The slaughter house also had an onsite processing and packaging site which many of the group struggled with the concept of due to the strict legislation preventing contamination within the UK. This did mean that over 2300 employees worked onsite on a daily basis, which subsequently negatively impacted the local economy after closure.



The plant briefly reopened in 2010 but due to an increase in legislation for methods of practice the abattoir has since not had a license to slaughter animals. The general methods were similar to that of the UK but a large variation in the ethics became present. Between 10-20% of cattle killed were pregnant, which meant the carcass was kept warm so that the blood from the calve could be extracted.

At the present time the plant is used to produced canned meat focusing on using the processing and packaging facilities. The meat is brought in either as whole carcasses or cuts of meat. Once minced the meat is partially cooked in a large auger and packed into tin cans. The cans are then placed into baskets which then fully cook in ovens before labelling and distribution. Visual and chemical controls are carried out on one can per batch to ensure quality controls. On the day our visit the cans of corned beef we viewed being made were contracted by the Government elective parties so they could be distributed free of charge to the general public in order to obtain votes.



We were also able to see the old school machinery used throughout the plant and the equipment used to make a tin can which was also originally done on site. As the site was founded by Borvil a large proportion of the final produce was exported to the UK. The plant had a very dated feel throughout.

The tour was very eye opening especially looking at the welfare of the slaughter of animals and the standard of hygiene within the processing and packaging. It allowed the group to gain an understand of the different standards out with the UK, and personally made myself grateful we have the high standard and regulations enforcing these that we do. No-one within the group were in a great hurry to try the corned beef!



Day 4, evening (Thursday 4th December)

Writer The Group

Thursday closed with a visit to “Paradise” kindly hosted by The Cook Family near La Paz. The family farm in partnership with Alan and farm on 8000 ha of rented land running a mixed enterprise. On arrival we were escorted by 4x4 to the main farm steading which was several kilometres from the main and the road has been severely deteriorated by heavy rainfall and would not allow the bus to pass.

The setting of the house and gardens were breathtaking and the Argentinean weather made it feel like “Paradise”. Over Asado (traditional BBQ lunch) we were able to learn more about their farming practices and how a joint partnership was sharing risks and knowledge with mutual benefits.

To better understand this the group were invited to visit their soya plantation as well as been given the opportunity to experience their extensive cattle system by trekking through the native bush on horseback! Uli the Guacho ably guided the group through some fascinating terrain before returning back to the steading for further discussion.

The Cooks then extended their hospitality even further by taking the group for a relaxing and sociable evening cruise over the River Parana. A fantastic and unforgettable experience.



Day 5 (Friday 5th December)

Writer Sarah Allison (Lanark YFC)

On Friday the 5th of December the group headed for Rosario, a port town on the river Parana. On our way we passed combines working on the country's wheat crop, Argentina's 3rd most important after soya and maize. Argentina is known worldwide for its beef production, on the lush scrublands that provide the ideal environment for cattle to flourish. However, in recent years the march of increasing commodity prices and technical advances has meant some farmers are increasingly turning to arable crop production. The scrubland is cleared by specialist

contractors and planted with a variety of crops- Soya, corn, wheat and barley to name but a few that are grown in Argentina. During our first week in Argentina we had seen how these crops were managed and the different management systems that farmers can use to maximise the productivity of their cropping land. Today's visit

however was to see what happens when the crops leave the fields-our destination; Louis Dreyfus soya bean crushing plant with integrated biodiesel production and grain export facilities.



Louis Dreyfus are one of the world's largest commodities and logistics providers; being the largest rice and cotton traders in the world and one of the top 3 grains and oilseeds traders. We were met by John Cowan-CEO of the South Latam region (South America excluding Brazil). He gave us a presentation on the company's structure, and how Argentina's geography helps it remain competitive in the world markets. Argentina benefits from the majority of its main grain belts being situated on the country's largest river- the Parana. This means ocean going vessels can load closely to where the grain is produced, removing the need for long journeys by road or rail beforehand. Export vessels can load up to 45,000 tonnes on the river itself. However, the current economic situation in Argentina means that this potentially huge cost saving is wiped out by a 35% export tax on soybean, 20% on maize and 23% on wheat. Argentina's main export market is the Chinese, where they compete with crops from Brazil and America. Mr Cowan went on to give us his take on the current world commodity prices, explaining how ending stocks have an effect on futures prices paid, and explaining to the group what market forces were in play in Argentina. Working in the grain industry myself I found his insights on current demand drivers and how Dreyfus had evolved over the years to capitalise on changing trends and emerging markets of particular interest.

The plant itself at Rosario crushes 12,000 tonnes of soybean on 320 days of the year. The plant was built in 1990, however changes in agricultural technology have changed the way argentine commodities have been traded since then. Up until 12 years ago most farmers didn't have the facilities to store crops, so they had to move them at harvest time, when the price is traditionally at its lowest due to increased supplies. However, since the introduction of silobags farmers have been able to store their crops cheaply, enabling them to move the crop when the price is better. The soybeans arrive at the plant, and can either be loaded for export as whole beans or crushed to make soyoil and soy meal. The meal then goes for export as a high protein animal feed and the oil is either exported pure or turned into biodiesel. Biodiesel production in Argentina is driven by the low (13%) export tax; however this policy has got the country in trouble with the EU accusing them of 'dumping' supplies on the common market.



At present the plant is only operating at 50% capacity, mainly due to slow farmer selling due to low commodity prices, and their main buyer, the Chinese preferring whole soybeans rather than oil as they have their own crushing industry to utilise. Questions were asked from the group about the recent announcement from OPEC regarding production and low oil prices and how that affected the price of biodiesel and the viability of the plant- Mr Cowan explained that it was because of this that the plant would shut down in January, however he saw the issue of low oil prices being only a medium term risk.

We took a guided tour round the plant from Mr Cowan- the scale of the operation really hit home. The plant had 1 million tonnes of soybean storage and 90,000 tonnes of liquid storage. From arriving at the plant it takes 16 hours until the soybeans are fully crushed. However the part that generated the most excitement was the unconventional method of unloading trailers- tipping the entire unit together. Soybean, wheat, corn, barley, soymeal, soy oil and biodiesel are all exported from the plant that also has a grain export facility allowing Dreyfus to be flexible to market needs, and add value to the raw crop where it could without needing to transport to a 3rd party manufacturer,

which creates economies that other business don't have. When we were there we were lucky enough to see a vessel in for loading which added to the experience and scale of the tour. To finish the visit we were taken back into the oasis of the air conditioned offices for a drink and an informal chat with John Cowan to round off our visit. It was clear to the whole group that he is an individual with clear passion for his industry and is a leading expert on commodity markets whom the group took a lot from in terms of marketing their own crops back home, and what elements of the Argentine commodity market can affect us back in Scotland.



Day 6 (Saturday 6th December)

Writer Robert Ramsay (Crossroads YFC)

Waking up in Rosario, there was a lot of excitement in the air, today was the final of the main Argentinean Polo tournament a very important day to the people of Argentina and amazingly, we were heading back to BA to see the game. We were all very excited but there was a bit of travelling to do first. We departed Rosario and travelled back through the province of Santa Fe, a more fertile region than Entre Rios, we were all impressed by the scale of production in this area. With the good dry conditions we were able to see a number of combines working and a variety of field operations taking place.

We got back to BA at about 12.30, giving us just enough time to freshen up before our pre polo meal. Those of us who brought their kilts with them decided that this was an ideal opportunity to inject a little bit of Scotland into what was otherwise a very Argentinean day.



Allan took us to a restaurant near the Polo Ground where we again ate like kings, beef of course, for starter and also main course. We were also given the opportunity to try an Argentinean delicacy of barbecued small intestine, which tastes about as good as it sounds. After lunch, we left the restaurant and walked towards the polo ground. A stream of people were also walking with us; you could feel the excitement in the air, this was going to be an interesting experience. As we entered a stadium filled with very wealthy Argentines, it was easy to feel a bit out of place in our kilt and flip flop combinations. However after only a few minutes, we got our first photo request and then the flood gate of amateur and professional photographers opened all keen to get a picture, we are going to be featured in Polo NewsUK.



Our knowledge of polo ranged from poor to non-existent nevertheless we all got caught up in the atmosphere. Before kick off, the whole crowd stood and sang the national anthem which added to the atmosphere. Allan and his family explained the rules as the game progressed. The game is made up of 8 periods (chukas) of 7 minutes each. Each team is made up of 4 players, two umpires control the game on horseback and an additional referee officiated from the stand. The speed of the game is very impressive, with 8 horses running flat out, across a 5 acre field, to compete for possession.

Sitting in a stand with no roof, in temperatures of above 30 degrees Celcius was a bit of a struggle. However, those of us wearing kilts were very appreciative of a cooling Argentinian breeze. Unfortunately the team we chose to support were beaten but we all thoroughly enjoyed the experience.

After the polo, we travelled to dinner in the centre of the city. The dinner was followed by a tango show which showed us the progression in the Argentine Tango from its roots in the slums in the late part of the 19th century to dance all Strictly Come Dancing fans recognise today.

Polo and Tango are integral parts of Argentine culture, it was a great experience for us to witness these two very different traditions.

Day 7 (Sunday 7th December)

Writer Scott Somerville (Carluk YFC)

Farming is a risky business. Over the past week we have seen the devastating effect of flooding and heard recollections of recent droughts. Prices are volatile and the incumbent government keeps changing the goal posts. Helping his fellow farmers mitigate the risks was the brain child of Gustavo Grobocopatel the visionary owner of Losgrobo.

The Losgrobo Company sees its self as being able to manage the risks of crop farming through firstly adding value to the systems of crop production. The farm inputs are purchased from Losgrobo on a finance scheme which can be paid for by an agreed percentage of production. The inputs are then received along with a plethora of agronomy and production



advice. The second stage of value creation chain is in the marketing of the grain. As the farms produce 2.5million tonnes of grain per year, good terms are gained for the sale and transportation of such extreme volumes of material. Much of the grain is sold on the futures market also, which is a much under utilised tool by farmers across the world according to Mr Grobocopatel. Finally some of the grain might find its way to one of the Losgrobo flour mills to be processed into consumer goods.

Trying to provide his farms with the best on farm solutions has led Mr Grobocopatel to invest in GM seed development, an agrochemical company, the founding of precision agriculture company called Frontec and development of computer software.

The business is that Losgrobo farm in their own right on rented land totalling 400,000 hectares. This might be considered that Losgrobo hold 100% of the risk. Alternatively farmers might enter into a bespoke partnership agreement with Losgrobo where the risk is spread. From this practice there are another 1 million hectares in a Losgrobo partnership. The company is growing rapidly and last year had a turnover of \$1.2billion US Dollars.



Given their experience in working with farmers in extremely remote locations to the north of Argentina; and their experience of dealing with areas of zero infrastructure and native people un-practiced in the ways of modern agriculture, Losgobo has since been consulting governments in Africa, Asia and the former soviet block on how to exploit farm land there.

The nature of this business is that it is scalable. Risks can be mitigated through geographic expansion and exploiting new markets. For this reason I believe we will all be reading more about Losgobo in the future.

Day 8, AM (Monday 8th December)

Writer Fraser Campbell (Bankfoot JAC)

A short drive from the small town of Necochea and we arrived at the Cameron family farm, which is originally home to our guide, Allan Cameron. The Cameron family have been farming here since 1916. Here Allan's brother Sean "does agriculture" which is Argentinean speak for, arable farming. Sean farms 4,700ha, 2,200 of which are owned by the family and the other 2,500 are rented, and he also manages another 4,000ha of cropping on another farm. Cropping usually follows a 3 year rotation of a winter crop of wheat, barley or clover followed by corn (maize), followed by sunflowers or soya beans. Most years sees them plant and harvest a second crop of soya bean between the winter wheat or barley and the corn crop. The land Sean is farming is suited to growing corn and could grow continuous corn, indeed some people were doing just that, but Sean was keen to point out that he saw that as short sighted and that he valued the benefits of a proper rotation in helping to improve soil fertility and structure.



The farm here employed 5 full time staff and they carried out all the work for the 4,700ha (11,614ac) of crops. The variety of crops and the length of the growing season allowed them to do so with only one main tractor! Other main bits of kit included two planters one for small grains (wheat, barley, clover) and a different one for large grains (corn, soya bean, sunflower), an Argentinian built self-propelled sprayer, a Case combine and 2 lorries which also worked off farm. The combine was the biggest model available and I'm sure Sean was quite proud of the fact that it was cutting as many acres that it was wearing out parts that, according to the Case dealer - don't normally wear out on a combine!



When we visited there was a lot of water lying in the fields, which was not normal for this time of year. Water use is usually restricted, and 90% of the time there is never any surface water, but due to 2 years of above average rainfall and the recent heavy rains this year, the water table had risen considerably. So much so that the intake pit for the grain and a number of the silos had 4 feet of water in them. Fields that were due to be sown in corn were lying in water, Sean has a 100ha under a centre pivot irrigator, destined for corn but has only managed to plant 17ha of it, he hoped to plant the rest in soya beans, which have a much poorer gross margin than corn, but didn't even think it would dry up enough in time for it to be planted this year at all.

The effects of weather that farmers were facing in Argentina certainly rings a bell to that in Scotland but there the similarities end. Their level of inputs is considerably lower, with virtually no need to apply potash or lime to the soils. The extensive use of no till farming, where crops are drilled directly into the stubble of the previous crop offers a huge saving in establishments costs, and creates good soil fertility and structure with lots of worms and porosity in the soil. The use of genetically modified round-up ready and BT resistant corn and soya bean crops has also reduced the reliance on expensive insecticides and selective herbicides. Though Sean openly expressed great concern for the future of round-up ready crops as the problem of round-up resistant weeds was ever increasing. He quite honestly admitted that the emergence of such 'super' weeds was the farmers own doing by becoming so reliant on the use of one chemical, and worried that they might have to revert back to cultivations to combat such weeds – losing the benefits of the no till farming system.



Touring around the farm in the pick-ups and actually standing in the field with the crop we were discussing with Sean was great, it gave us a much better understanding of what we were be told, especially when talking about crops not commonly grown in Scotland such as corn, clover and soya bean.

So after a very interesting and informative tour round the different crops we arrived at the house where it seemed like in the space of 2 minutes we went from farm walk to 5 star hotel resort. The hospitality was second to none, with a pool to cool down in, beer, wine and a delicious Argentinian BBQ lunch. For a couple of hours we all but forgot we were on a fairly intense whistle stop tour of Argentine agriculture – a very big thank you to the Camerons!

Day 8, PM (Monday 8th December)

Writer John Anderson (Halkirk YFC)

For the afternoon we visited Flores Chicas owned by Marcos Areco. The group was very excited to be visiting their first beef production unit. The farm is 5000ha with it half in grass and half in arable but it was the livestock enterprise that we came to see.

The family run 2000 pure Angus cows, grass fed all year round, with a view to produce 350 breeding bulls and 600 breeding heifers. On this farm they are running 260 cows plus calves at foot in one 50ha field which gives an idea of the scale of the operation. They focus on using NZ genetics and try to breed a smallish type cow that will have good fertility, milk, longevity and good feet. There has never been a need to trim a foot in the herd! Carcass traits are not a priority here. There are 2 cows in the herd which are 24 years old. These 2 old timers are currently in an embryo transfer program to try and exploit this long life trait.



Calving ease is a priority with cows only being seen to twice a day during calving time. The average cow weight is 550kg and the cows scan at 95% which is very impressive for this part of the world. The farmer stressed that his success was down to the fact that the land he grazes is very good quality and would most likely be put down to arable by most argentine farmers, claiming that most of the livestock in the country is pushed into poorer land. Between scanning and calving 3% of the cows lose their calf and he has a 4% calf death rate between calving and weaning, mainly caused by scours and pneumonia.

Although the farm is using a ranching type system the group was surprised to learn that every cow gets one chance of AI, and that the birth weight of every calf born is recorded, a fair undertaking for 20 cows, never mind 2000! We also learned their technique for weaning calves which involved fitting a nose clip to each calf and then let them back with their mothers, a less stressful weaning system it was claimed. Something that raised a few eyebrows in the group was the fact the he calved his heifers at 21m, but attitudes changed when we looked round a group of first calvers in good condition and making a fantastic job of their calves. Heifers are calved down 3 months before the cows to allow them extra time to recover. Bulls are fertility tested at 8m to determine their future and then put to work at 24m. No starch is fed to the bulls to keep them as natural as possible but soya hulls are fed ad-lib for a period of time. The farm kept what bulls and heifers they needed for replacements and sold the rest to other herds.



The group was certainly impressed by the scale of operations and may look at their own beef systems back home in a different light.

Day 9, AM (Tuesday 9th December)

Writer Stuart Cowan (Annandale YFC)

Day 9 began with the visit to our second dairy visit of the trip. It was situated in the surrounding district of Tandil. On arrival we were greeted by the two farm managers who talked us through their model of production.

The business was owned by a lady, Marilyn Mulville who left all the operations to her two female managers. The total farm consisted of close to 700ha and 1000 Holstein cross Jersey cows. The model of production at Tambo was described to us, with a brief insight by the farm managers followed with question and answer session. All of which was translated threw our tour guide and acting translator Alan Cameron. The dairy consisted of two separate herds and units simply known as Tambo + Tambo 2. Each unit is separate and consists of two separate calving blocks, spring and Autumn. When certain cows fell out-with the season due to fertility issues etc, they could be swapped from one herd to another. This helps to maintain a compact and efficient calving, threw to consistent production of milk in that season. The average milk production from Holstein jersey cross cows is 6000L/cow, milking a twice daily routine. Within the 30:60 herringbone parlour, the routine was a simple one to only wipe teats on wet or dirty periods of weather. This was followed with stripping the teat for visual inspection of the milk before applying the clusters. A post iodine dip was applied. The parlour was a simple setup with few electronics; that contributes to the whole low input low cost system. No daily individual yields were taken but individual milk recordings take place every 45 days. The pastures are a mixture of praire grass and lucerne, with cows being grazed at around 2.4 cows/Ha. Both sorghum + maize silage are grown on farm as a supplementary feed through the year at low grass growth periods during grazing. The farms capability for cropping was lucerne, sorghum, oats and prairie grass to be grazed.



The chosen genetics are selected from NZ background rather than America lines because of the size and character of the stock. The genetics originally were predominantly jersey but the Holstein was introduced to increase value of sale of calves, cast cows and also milk. The aim is to find a buyer who would buy on a 'solids' contract but this seems very rare and sought after in Argentina. Heifers are reared in-hand and replace older cows at 4.5 years milking of age. Heifers are inseminated at 15 months of age with strong intention to calve at 24 months to save costs and (again) have an efficient system. Artificial insemination is used on first instance and anything thereafter is caught by a stock bull. All bull calves are kept between 30-60 days before being taken to a feedlot and then finished thereafter by an external buyer out-with the dairies operations.



Disease and health problems are actually quite minimal throughout the country and there are no known concerns surrounding this dairy and district of Tandil. If any problems were to arise then it would generally originate at the north of the country where the neighbouring countries are less strict and problems cross the border into Argentinean farms.

As noticed from the previous dairy visit staffing numbers are high and this is viable with low labour costs in Argentina, 19 staff are employed across two herds not including additional services from consultants and vets. In conclusion to our visit we were met with the highest of hospitality, Marilyn had opened her house to us in her absence as if it was our own.

Day 9, PM (Tuesday 9th December)

Writer Robert Marshall (Mid-Deeside YFC)

On the afternoon of Tuesday the ninth of December the group toured the ranch of Armundo Romat. For myself this was particularly exciting visit as he is one of the few people using Charolais sires for crossing on cows. At seventy nine years young this surprisingly sprightly gentleman is still very active in all the day to day runnings. Farming 4000ha near the town of Azul in the province of BA is extremely unusual because instead of using his highly fertile lands to produce soya, maize or wheat he has stayed true to his passion and runs a herd of fourteen hundred cows. Grows two thousand hectares tall fescue which is made in to hay and round baled and grows four hundred and fifty acres of cereal split between corn and oats which is all used for feed through winter. Of his cows forty are pure Charolais and the remainder pure Aberdeen Angus.



As already stated the Angus cows are the main enterprise of the herd. He puts forty five percent of his cows to the Charolais bull to produce bullocks and heifers. These all go direct to slaughter. The other fifty five percent go the Angus for the purpose of breeding replacements.



Running the bulls with the cows for ninety days in batches of around two hundred cows he has a conception rate of ninety seven percent. However he does have a high bull to cow ratio with one bull for every twenty cows so with favourable climate and land on which he farms along with the long bulling period you would expect a good level of conception. He also keeps the best of his heifers. This

year he kept three hundred. Because he is bulling them at fifteen months of age weighing around three hundred kilos he always gets the vet to come out and manually check them all to decide if they are wide enough of the pelvis internally for calving at the younger age. On average they find around six percent each year to be too small. They go to the bull twenty days later than the cows and only get seventy days. This I found to be a bit unusual as most people would give them the first seventy to allow them extra time to recover before returning to the bull the second time. Also with a turnover of a little over twenty percent of cows per annum he is also keeping his herd young which should also aid fertility.

Calf mortality is quite high with only ninety two percent reaching maturity. Main causes of death being scour and pneumonia. He has a very strict policy with cows which is no calf at time of going to bull then they are a cull. He doesn't believe in carrying passenger cows for a year.

He does admit that his pure Charolais herd of forty cows has a much poorer conception rate but wasn't willing to divulge by how much. (Although I think that is something most pedigree breeders could sympathise with.) However he does run them with the same rules as the Angus with no calf no bull.



Using only natural service on his Charolais he aims to breed bulls to use on his black cows. As previously stated forty five percent of his Angus cows go to the Charolais bull to produce a calf of a heavier dead weight for selling to high end restaurants throughout Argentina. The batch of twenty heifers he dispatched at time we were there had a live weight of four hundred and two kilos at fifteen months. The remaining fifty five percent go to Angus bulls to

produce heifers for replacements and a proportion of the better males are kept entire for selling. Last year he sold around a hundred bulls to an average of around twenty four to thirty months of age, six hundred and fifty kilos and two thousand dollars. The handful of Charolais bulls he sold averaged seventeen hundred dollars.

The tall fescue that is cut for hay is left to lie for two to three days before being round baled. With an average crop of five four hundred kilo bales per hectare. The fields that are cut are also grazed twice per annum. Once through the winter and again in the spring. Of the four hundred and fifty hectares of cereal that is grown two hundred and fifty are of maize which yields an average of ten ton the hectare. The remaining two hundred hectares are of oats which yield three ton the hectare.

The grain is used entirely for animal feed. Stored at eighteen to nineteen percent moisture it is fed whole. With eighty percent digested and twenty percent passed straight through. This was deemed to be economically viable against the cost of rolling or milling the maize. Through the summer the steers are fed three to four kilos of grain per head and have an average daily live weight gain of one and a half kilos. Through the winter they are fed approximately the same amount of grain in a ration made up with fescue to twenty kilos a day but have a DLWG of almost half of the summer at point seven kilos.

Whilst there Armundo also took great delight in giving us a brief history of his country and of the battles that shaped and sculpted it people and there culture. It was from these battles and the retreat of the Spanish that the Argentinian Gauchos (cowboys) came to have the type of horse they still use. The Criollo is a small very hardy type of horse with a lot of stamina. He explained how these horses can run 1 league which is five kilometres at full pace. He then went on to explain how every town in Argentina is twenty leagues apart as this is the distance that a horse could cover in a day. The gauchos are very proud of their horses and each have seven. A different one for each day. They have a preference for male horses. However Ardmundo doesn't care for the stallions and all the horses at his ranch are females.



Every year he puts five of his best females to a top stud that breeds polo horses to be bred with. But instead of paying money he pays for the services with twenty seven tons of oats.

This was a visit from which we took a lot. From the founding history of the country the reason that the towns are all a hundred kilometres apart and of course the the chance to see some quality stock. Although I didn't find myself agreeing with all that Armundo said it was hard to argue the passion and enthusiasm that this encapsulating Gentleman had maintained for farming and in particular his cattle. He was welcoming and open and more than willing to share his knowledge and answer our questions and kept us thoroughly entertained throughout.

Day 10 (Wednesday 10th December)

Writer Elaine Henderson (Forfar JAC)

Since arriving in Argentina it's safe to say the group have survived on an "Atkins" style diet. However, the carbohydrates that have made it onto our plates have been of excellent quality, making our flour mill visit today all the more interesting. The Molino Conepa mill in the town of Chivilcoy was established in 1887 and is now part of the Losgrobo group, owned by Gustavo and Paula Grobocopatel who explained their business to us earlier in huge week.



Wheat, all of which is home produced, arrives at the mill at 14% moisture, with water from an onsite borehole then added to bring the grain to 16% moisture. Then the grain makes it's way through no fewer than 19 milling machines, each containing 25 sieves, which were traditionally made of silk, but have now been replaced by nylon. This extensive process results in flour of four differing grades, along with wheat feed for animal consumption. The finest grade of flour, labelled with four zeros, is used for croissants and other fine bakery products, whilst the triple zero flour is used to produce bread. The third grade is used for pastry and the fourth for pasta. Quality is assured through the regular checking of samples during the milling process.



With a capacity of 70.5 tonnes per hour, this mill processed 420 tonnes in 24 hours, 6 days a week. Only a small amount of the flour is bagged into 25kg or 50kg bags, with the majority leaving the mill in bulk form. An onsite bakery further ensures a consistent quality. Each day a different product is made and assessed before being given to the 72 members of staff to take



home. On the day of the groups visit a delicious Christmas chocolate bread was being put to the test. Having enjoyed the excellent Argentinean hospitality once again, we popped back on the bus and drove the few miles to the pasta factory owned by the same company.



Due to a power cut caused by a storm the previous night, this state of the art factory was not running at capacity. Under normal circumstances this fully automated, multi million dollar plant produces and packages 30 tonnes of spaghetti and 35 tonnes of various pasta shapes in 24 hours, with only 7 members of staff on each shift. With a target of producing 10% of the market share, plans are afoot to install another two production lines.

Having rekindled our interest in Italian food, a pizzeria was the restaurant of choice for our evening meal.

Day 11, AM (Thursday 11th December)

Writer Ranald Angus (Bower YFC)

Thursday morning started with the penultimate visit of the study tour in the town of Chacabuco, situated 220Km west of the Argentine capital Buenos Aires and is home of Donmario Semillas (Donmario Seeds). After arrival the group was welcomed by DM soya production manager Joaquín Lopetegui in the foyer of the Modern and elegant company headquarters which had been graced by the presence of a saltire in homage to our visit.

Shortly afterwards we were given an introduction to the business of the company with a detailed analysis of Argentine crop production. DM is a

100% Argentine specialist seed producer established for over 30 years with markets in Argentina, Brazil, Paraguay and Uruguay, accounting for the majority of market share in soybean seed for both Argentina and South America. The company markets seed for wheat, soya and maize, producing its own soya and wheat varieties with licensed maize hybrids from third party companies sold under the DM brand producing a cumulative annual revenue in the region of \$220M (80% generated from soya seed production). Wheat is produced using conventional seed breeding techniques however soya is produced with the introduction of GMO traits (Roundup Ready) which are acquired through third party companies (Monsanto, Dow agrosience, BASF etc.) Maize hybrids are also GMO however there is no GMO technology in wheat due to wheat being primarily used in direct human consumption GMO use, at the present moment, contradicts public perception. The company was keen to stress that although buying seed it was the genetics and the breeding of the variety that was the ultimate 'product' it targets at the customer.



property against a recent trend negate the obligation to producer. With the margins of recent years coupled with the increasing trend in Argentina. account of the seed breeding to the future varieties and introducing in the coming years problems regarding resistance to glyphosate in weeds.



A current problem for the company is safeguarding its intellectual in farm saved seed whereby farmers honour the royalties of the seed crop production being tightened in volatility of wet weather, this is an We were also given an in depth programme at DM with an insight in traits that the company will be with a discussion focusing on

Following the very informative presentations the group was given a tour of the other facilities including seed processing plant and greenhouses where we witnessed the technicians inoculating soya plants with leaf spot as part of the breeding processes.

At the end of a very informative and hospitable visit to Donmario Semillas the group was left with a good impression of the company and certainly compounded my own thoughts as to both the challenges and the opportunities of the Argentine farmer in the future.

Day 12 (Friday 12th December)

Writer Jane Orr (Bell Baxter ADS)

On completing our insightful visit of Don Mario Seeds we set off on what we believed to be the last leg of our adventure, back to BA. However Alan yet again excelled himself with a surprise up his sleeve in the form of a goat farm. Organising it only that morning, on a request from the group to see some diversification and value adding.

Cabana Piedras Blancas is a business set on only 3ha, renting a further 12ha from a neighbour. Mr Marcelo Lizziero milks 170 goats twice daily in a 10 a-side Herringbone parlour, with the intention to increase the herd to 500 in the coming year. The goats are grazed on pastures of rye and prairie grass and white and red clover, with access to maize silage and also receive a high nutrition mix during milking. Additionally whey is also fed back from the cheese factory, utilising all 'waste', while remarkably improving the goat's condition.



The goats are served at 7 months old, have a 5 month gestation period, so enter the milking herd at 1 year old. At their peak, producing 2 litres per day for 220 days, at a value of £50 and cast cul value of £15. Billies are sold for meat at 2-3 months old at a live weight of 12kg and dead weight of 6kg, which reflects the Argentine desire for young meat. All animals have a EID bolus, so they can be identified from the milking pit and milk production monitored. The government is planning to make this system of identification compulsory in all livestock in the future.

They add value to their product by making award winning cheese from their milk, while also buying in cow and sheep milk. In all making a total of 15 different products and holding the biggest share of the sheep and goat cheese market, allowing them to set the market price. The Cabana Piedras Blancas are high end, allowing them a markup of 40-50%.

Selling 30% of product to supermarkets and the other 70% direct to restaurants and hotels, the disadvantage of this being that the end customer does not see the branding, however payment is better and faster than that of supermarkets.

After a sampling session we set off to BA with a heavy heart for our 'last supper'.

Acknowledgements

The group are indebted to all those who supported them financially, whom without this trip would not be feasible. The members would like to thank the following for their contribution to the full group:

- AHDB HGCA
- Agrii
- ANM Group Charitable Trust
- Galloway and McLeod
- International Trust
- The Cameron Travel Scholarship Trust

They would also like to thank their own individual sponsors collectively listed here:

- ABP Perth
- Agricar Forfar
- Agrico UK Limited
- Agrimart
- Agrovista
- Alan Mackay Machinery Limited
- Angus Agricultural Association
- Angus Tayside Association of JACs
- Auchincruive Agricultural Society
- Ayrshire Association
- Bankfoot JAC
- Biggar Farmers Club
- Birsay Farmers Ltd
- Border Eggs
- Carluke YFC
- CKD Galbraith
- Cumberland and Dumfriesshire Farmers Mart
- Craig Wilson Ltd Livestock
- Crossroads and District YFC
- CS Tractors Limited
- David Ritchie (Implements) Forfar
- East Coast Viners (Montrose)
- Ellen Kerr
- Forfar and District JAC
- Galloway and McLeod
- Gregor Award Trust
- Hamilton Brothers
- Iain Watt Haulage
- J & W Taits Ltd
- J & S Montgomery
- Johnston Carmichael
- Kirriemuir & District Agricultural Association
- Lanarkshire District YFC
- Lawrie and Symington
- Linklater Engineering Ltd
- Loudoun and Galston Agricultural Society
- McRostie of Glasgow Handmade Leather Goods
- MBM Veterinary Group
- M J Harrison Supplies
- NFUS Ayrshire
- NFUS Clydesdale
- NFUS Cupar
- NFUS Orkney
- Northvet Veterinary Group
- North East Farm Management Association
- Orkney Auction Mart Ltd
- Orkney West Mainland Agricultural Society
- Orkney District Association YFC
- OWMAS
- Perthshire District YFC
- R H Goldie Ltd
- Smithsgore
- South West Grassland Society
- South West Scotland Grassland Society
- SRUC Crichton Farms
- SRUC Trust Funds
- Stoddarts
- Tarff Valley Ltd
- The Rotary Club of Forfar
- The Rotary Club of Kirriemuir
- Turriff District Agricultural Association
- United Auctions
- William Shearer Agricultural Seeds & General Merchants

This study tour would not have been possible without the guidance and support from Allan Cameron of Cameron Farming Tours who coordinated the itinerary, and remained with the group throughout the two weeks as a translator and guide. Allan delivered above and beyond all expectations, and the group would like to pass on their deepest thanks to him and all of the hosts who helped to ensure the trip was an unforgettable experience.

Further Information

If you require any further information about this report or the Agri & Rural Affairs groups contact SAYFC Communications & Rural Affairs Manager Rebecca Dawes on 0131 333 2445 / rebecca@sayfc.org