CREAM RISES TO THE TOP

Northern Ireland's Greenmount College is home to the innovative CREAM project, where students take on the management and running of the Creamer herd. Still young enough to remember her own days as a student, Sarah Liddle went to have a look.

An overwhelming enthusiasm and willingness to cooperate at all levels is giving students of the CREAM project at CAFRA, Greenmount College, near Belfast a great place to study agriculture.

Just over a decade ago, the project was established when the former College Principal Roy McClenaghan came up with the concept of the HND and degree students learning by practise. This took the form of them taking the responsibility for the planning and management of a 30 cow high genetic merit dairy enterprise, and with that in 1994, the Co-operative For Real Education in Agricultural Management or CREAM was born. The College is an integral part of Ireland's Department of Agriculture and Rural Developments Agri-Food Development Service.

During their three years of study, students can put what they learn in the classroom into action, and it gives them experience and management skills way beyond the level achieved in conventional degree or HND courses. This, you would assume, is appreciated long term by employees or even families when they return home. Queens College, Belfast provides the umbrella qualifications, and students have

TOP Michael Graham and Stephanie Wood, together with the students, inspect forage quality.

ABOVE Surplus stock are sold at Moira Pedigree sales.

opportunities to work on similar projects such as LIMO with a pedigree Limousin herd, and a crop project as well.

The herd's foundation consisted of 20 in calf heifers sourced from Canada, Holland, England and Northern Ireland, with their remit being to have a high index for milk production, good type and be from three generations VG or EX. These animals were sired by top bulls of that time such as Blackstar, Leadman, Chairman Valiant, Belt, Aerostar, and Chief Mark and form the basis of today's herd, with some still going strong in their

ABOVE LEFT A purpose built facility houses the 30 strong Creamer herd.

ABOVE RIGHT Vet Brian McAuley is one of a number of Advisory Board members who help and encourage the students.

own right.

Six of the original animals were sourced from Peter Padfield's well-known Hayleys herd, while Ashley Fleming of Ai Services gave help with selecting the foundation stock.

Supreme AnneMarie EX94-3E is probably the herd favourite and certainly the matriarch, having given over 125 tonnes of milk in nine lactations. She is one of the original 20 heifers and is still in the herd today. The Patronella and Kitty families have also been very influential, and the latter is the most prevalent in terms of numbers registered. The high component Patronella family was introduced when farm manager Michael Graham bought the yearling EK Patronella, a Patron daughter out of the heart of the Prices Melwood Betsy family for 8,800gns at the 1998 Black & White Sale at Carlisle.

Creamer Formation Blossom EX91 has been one of the highest yielding members of the herd, peaking at 87 litres and giving over 70 litres a day for six weeks, helping the herd win the highest yielding medium herd on 3x day milking regularly in the NI Holstein herd's competition. Two cows have just reached the 100 tonne landmark this year; Creamer Juror Kitty 5 VG85, a daughter of one of the foundation cattle Hayleys Leadman Kitty, and Creamer Zebo Lustar 2 EX90, which shows that high levels of milk are being sustained over a number of lactations.

The herd aims to bring in 10 to 12 replacements a year, which brings in new stock for students to work with and surplus stock are sold through pedigree sales at Moira. This spring, Creamer Shaker Kitty was Heifer Champion at the March sale while Creamer Gibson Blossom sold for the top price of 2600gns at the February sale. The herd no longer shows due to high levels of biosecurity, with the herd vaccinated for BVD, Lepto and Salmonella, as well as being involved in a Johne's testing and eradication programme.

Flushing and embryo implantation is done as a means of introducing new blood and spreading high genetic merit bloodlines more widely within this relatively small herd. There is one flush a year, and 2006 saw the students agree to flush a maiden Braedale Goldwyn daughter from their own herd, Creamer Goldwyn Looking. She is a potential eighth generation VG or EX, and was herself bought as an embryo from Cogent Tugolo Looking 2, a Dutch family introduced to Cogent. The flush, to Mascol, yielded seven eggs and five pregnancies.

The students, who still have to complete the same hours of studies as conventional students alongside their practical responsibilities, can ask for help and advice as a 140 commercial cow herd averaging 8500 litres on a forage system is run on the same steading as the Creamer herd. However, the Creamer cattle are housed in a purpose built cubicle house, with a 6 unit tandem parlour and both out of parlour and in parlour feeders in addition to TMR. This unit was built in 2001, and includes self-locking head yokes and a straw bedded area for fresh high yielding cows. Students spend time in groups focusing on milking and health, breeding, feeding, and finance and promotion, and as they milk three times a day, the milking week can be pretty gruelling!

They work in groups of three with two first year students and a 'foreman' in the form of either a second year degree or third year HND student taking responsibility on a daily basis. Keen competition among the students to maintain top bands for hygiene means the milk, which is sold to UDF, has a base price of 17.5ppl. Adjustments are constantly made to benefit the students, such as the removal of auto ID when the new parlour was installed, as it made them more conscientious in terms of monitoring the herd and individuals within it. The students take the herd to their hearts, and it's not unknown to see students checking on the herd at 9-10pm when it's not even their week on.

The aim of establishing a high genetic merit herd is certainly paying dividends with the herd averaging 10,542 kg at 3.81% fat and 3.00% protein, and comprising of four EX, seven VG and 14 GP individuals. The herd has been influenced by sires such as Formation, who put in milk, Outside who is showing longevity in his daughters, and Gibson who has stamped in high levels of type. There are currently a large number of Shaker daughters waiting to enter the herd, the result of sexed semen, as well as offspring by Onyx, Lee, Mascol and Export.

FARMFACTS

Creamer Holsteins

- Founded in 1994
- Unique educational experience
- Just 10 minutes from the Belfast International Airport
- Over 180 students have been through the project so far
- Successful due to co-operation from so many different parties
- Easy feed system
- 30 head averaging 10,542kg, 3.81% fat and 3.00% protein
- SCC 62, Bactoscan 13
- 4 EX, 7 VG,14 GP
- Significant families include Blossom, Kitty, AnneMarie and Patronella,
- Sires in use include Mascol, Builder and Samuelo

ABOVE The Creamer herd has clean and comfortable housing.

LEFT Project manager Dr Stephanie Wood and farm manager Michael Graham with three of this year's students.

CREAM

Bull selection of late has focused on improving components, but not at the expense of losing type or production, so services are to Mascol, Tec Llaneza Builder (for heifers) and Regancrest Mr Samuelo. As there are limited numbers to play with, only proven AI sires are used and they must offer at least 70% reliability. Currently there is selective culling on the basis of poor components.

The rations fed to maintain this high production are constantly monitored by the students and currently incorporate a 24% protein blend with whole crop, silage, molasses and some long fibre as either hay or straw. Animals yielding over 26 litres a day are topped up in the parlour, up to 6 kg, with the remainder for the top yielders provided by the out of parlour feeders. This year maize will be introduced for the first time, which will give another dimension for students to base figures and performance data on. The daily measurement of dry matter intakes by students is seen as the secret to the high yielding herd as it leads to the quick and easy identification of problems. There is also recording and calculation of daily live weight gains, which emphasises the importance of energy balance and shows and fosters the need for precision to students. Body Condition Score is also monitored as a management tool for herd health and feeding.

The students are accountable to the College advisory staff, and are well trained in preparing and giving high level presentations, an important component of the course. Up to 50% of their marks can be awarded for practical participation and performance, with assessment in areas such as yard performance, practical skills, board day presentations, two assignments on the enterprise and then exams. It certainly seems to be a formula that is working with students going on to win frequently in competitions such as the RABDF Dairy Student of the Year Award, and also securing employment, either at home as have previous students and HUK members such as Smith McCann, David Calderwood, John McCormick and James Stevenson, or in industry such as Andrew Dale, Paul Dunn and James Coulter.

This year there has been the biggest intake of students yet, with 31 participating in the CREAM project from all over the UK, although predominantly Ireland. So far over 180 students have experienced the unique learning experience that the CREAM project offers. It is thought that roughly 60% of the graduates find employment in the industry with the remainder returning home to family businesses.

Speaking to three current students confirmed that they had enjoyed the course, and felt there was no doubt that it had huge advantages over other qualifications that did not encompass the responsibility for the daily operation and management of a pedigree herd.

As said earlier, the Advisory Board provides a great supporting role, as do the farm staff including farm manager Michael Graham, who has a keen enthusiasm himself for pedigree Holsteins, and all the staff, particularly Dr Stephanie Woods who is the current manager of the project. Many local farmers, agricultural support staff and businessmen together with vets such as Brian McAuley give up vast amounts of their time to help, guide and give advice to students, which is a crucial dimension to the project. Without these people's enthusiasm, the project would undoubtedly wane.

In some respects the cows are a product of the students, as the College's remit is to educate the students with the herd, however the Creamer herd is still developing and going strong. Cynics will say that with only 30 cows the unit does not paint enough of a real life picture, but at this level the students can experience all aspects of the business and be responsible for it, while there are sufficient opportunities at both the adjoining commercial unit and for second year HND students during their year away on placement to see larger enterprises. Increasing the current Creamer herd is not seen to be in the students' interests, and it is the students that are the heart of the project.

There are times when the students are involved with innovative products and ideas, and examples at the moment include some of the fertility benchmarking work that involves heat detection rates and submission rates, as well as projects such as teat scoring. This work has to fit in alongside all the daily tasks with the exception of AI and foot trimming, which are done by College staff.

On a commercial level, the aims of the herd are to reduce concentrate use from the current three and a half tonnes per cow, and improve the milk components, without forgetting the importance of the environment. Every Tuesday afternoon the students meet with the staff to discuss objectives, problems and experiences. Annual performance targets are suggested by students and agreed but presented to the advisory board for approval. The cows are simply a tool to give the students experience but what a great tool they are!