College's new unit marks return of a milking herd

MODERN £2m dairy unit, which combines best practice and prioritises herd health, welfare and hygiene, is due for completion in the new year at Newton Rigg College, near Penrith.

York-based Askham Bryan College took over the running of the college three years ago and pledged to reestablish a milking herd – now the project is nearing completion.

"It's very important for Newton Rigg to re-connect with dairy farming in the north – in Cumbria and in the Scottish borders and the North-East of England," said Wes Johnson, Newton Rigg principal.

"The college lost its dairy herd in March 2001 in the foot-and-mouth epidemic, and when the herd was not replaced, the college lost a lot of its credibility.

"We have had fantastic support from the local farming community in what we are achieving – and student numbers for vocational courses are at a record high this year."

The design of the unit on a greenfield site at the college's Sewborwens Farm has been led by a committee of Cumbrian milk producers and headed by farm manager Jonathan Fisher and vet David Black, of Paragon, in Dalston, Carlisle.

The unit comprises two 72m by 36m buildings. One houses a collection yard, parlour, holding pens, cubicles and pennage for calving and newly-calved cows. The

ANIMAL HEALTH

Jennifer MacKenzie visits Newton Rigg College, near Penrith, to find out what benefits its new dairy unit will offer

second building separates the main portion of the 240 pedigree Holstein herd.

"Each cow will have 12 square metres of space, which is far above the recommendations," said Matt Bagley, Newton Rigg head of agriculture. "We have gone for a high-welfare, high-input, high-output unit, which we aim will be free from endemic diseases, with the ethos that if the cows are disease-free and comfortable, they will reach their genetic potential, and milk well."

The college already has 100 cows and heifers in milk, which are being milked through a temporary bail until the new unit is finished. While not all the cattle are yet at Sewborwens, 170 head, including cows and heifers, have been bought from Anthony Brough's Tallent herd at Cockermouth, and the first calf was born at Sewborwens in October.

Other animals have been bought from the Holmland, Ingleden and Bridgedale herds to eventually number 200 cows in milk.

They have been selected for their high type merit and high indexing families, with some of the pedigrees having up to 12 generations of VG and EX cows.

Main contractors for the building work are Cubby Construction, of Carlisle.

who are also fitting out the buildings supplied by Supercraft, of Herefordshire.

The dairy building houses a collecting yard, a Fullwood Quick-S rapid exit 30x30 parlour, featuring the latest technology with inparlour feeders, a fully computerised system with auto ID via pedometers, which relay individual cow information to the computers in two offices in the building. The parlour is also fitted with a backflush system.

The parlour is being fitted by McCaskies, of Carlisle, through Fullwood UK sales manager Les Strickland. It will include a mezzanine viewing gallery for students and visitors.

The computerised system automatically sheds cows on exit from the parlour for AI or other treatment into three holding pens or a herringbone AI race for 15 cows.

An area is also being set aside for foot-trimming and there is a large foot bath area for pre-milking to clean hooves before entering the collecting yard and a second jet wash foot bath post-milking.

The building, which contains the parlour, will also house 36 dry cows in cubicles and five calving boxes, and straw yards for freshly-calved cows, all with access to a side feed trough that will allow plenty of time before they need to be integrated into the main herd.

The second building has 164 cubicles for the milking cows with an extra wide central feed passage to allow access for the Kverneland Siloking twin auger feeder wagon to pass without running over valuable feed. The design allows the number of cubicles to be extended to accommodate 300 cows in milk.

The cubicles are GEA M2M Kingshay-designed cow comfort cubicles with patented adjustable head rails.

N what is thought to be the first cubicles designed specifically for the system, they will be

deep-filled with the latest Green Bedding system from slurry handling specialist Bauer, which produces bedding material for cubicles.

The de-watering separator developed by the Austrian company's German subsidiary, FAN Separator, was only officially launched onto the UK market earlier this year (2013).

The cattle will be housed all year and all the slurry is processed by the separator typically up to 36 per cent dry matter.

A link building will join the two to prevent the need for the cows to go outside to be milked in the second building. The buildings have twometre concrete panel walls that will be topped by threemetre curtains for automatic ventilation.

As well as the curtains to three sides of the buildings, the roofs incorporate 10ftwide perspex roof light ridges, which have baffles to deflect the wind and improve the air flow out of the building.

Outside, liquid from the separator will be stored in a 5,000 cubic metre lagoon, which will be gravity-fed and give eight months storage for the liquid from the separator.

The liquid, which requires a minimum of agitation, will be spread by an umbilical process across all the farm's land by a contractor.

Recommendations from DairyCo's Dairy Housing Best Practice Guide have been used in the building design, including lighting that will mimic 18 hours of daylight and six hours of darkness to help optimise milk yields.

As part of the green ethos of the development, photo voltaic roof panels will generate electricity.

The cows' winter diet is 22kg of first-cut silage, 9kg whole crop wheat, 6kg dairy blend and dairy minerals. and bicarbonate of soda for M plus 24 litres. The cows are topped up in the parlour up to 6kg.

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FUTURE: Wes Johnson and Matt Bagley outside the new building - Picture: Jennifer MacKenzie