

Traditional dairy farming in the Târnava Mare region of Transylvania.

Dr Wanda McCormick of Moulton College used a Farmers Club Charitable Trust bursary to investigate traditional dairy systems in Romania.

The Târnava Mare region of Transylvania has been gaining a strong reputation for biodiversity and has been named as one of Europe's finest surviving lowland High Nature Value (HNV) farmed landscapes. This reputation for good wildlife has caught the attention of Operation Wallacea, an organisation who run biological conservation and management research programmes around the world, and when they announced that they would be opening a new site in Romania it seemed like the perfect opportunity to encourage conservation of traditional farming methods and native breeds.

Operation Wallacea run a series of summer expedition programmes at locations around the world in conjunction with academics from a host of universities. Students then have the opportunity to visit these study locations and take part in active research, either as part of a school lead study tour or for a longer time to complete their degree dissertation. However, farming is a new avenue for the organisation, with them being more at home in tropical rainforests and coral reefs, so I travelled to Romania to visit traditional dairy farming systems there and establish which areas would be most suitable for the students to investigate and where the greatest potential was to inform UK practices. My visit was co-ordinated by the NGO Fundatia ADEPT, who works closely with local farmers to maintain traditional farming methods, identify unique selling points in their production industries and help navigate the way around the EU's agri-environmental schemes.

Romania's dairy farming systems show a huge diversity in size and method. Perhaps, the most famous aspect is the 'coming home of the cows'. In many villages, it is common for each household to own a small number of cows and these are all taken to communal grazing areas by a nominated herdsman each day, returning to their own buildings as time for evening milking approaches. The distances travelled to graze can be quite large and are labelled as both a blessing and a curse – during droughts (such as when I visited) the cows are effectively eating to walk with very limited milk production yet the farmers take great pride in the health of the cows and I can genuinely say that I have never seen such mobile animals without a single case of lameness in sight.

The next level up in farm size would be the farmers like Martin who own around 30 cattle and spend large amounts of time in the summer living up in the hill pastures with them and moving the milk down to the local collection points by horse and cart each day. It is definitely quite an experience to see a group of apparently very

content cows being milked by hand by an entire family with the young children shipping the milk buckets backwards and forwards to the cart.

The larger herds in Transylvania are often a result of farms having been bought from the state back in 2000, such as that owned by Friez and Michael in Nou Sasesc who own 90 cows between them. Even at this scale, cows are normally walked to grazing each day as concentrate feed is very rare, so milk yields can be as low as 7-8 litres / day / cow. Despite these larger herd sizes though, the cattle still generally appeared very healthy and apart from a few mild cases of mastitis, the common problems of our Westernised high production systems are mostly absent.

More recently, some larger scale production systems have started to appear in Transylvania where cows are kept housed with access to an outdoor exercise area and farm labour is used to cut grass from the pastures and bring it to the animals. It is these farms where investment has also been placed in milking parlours with machines rather than the traditional image of hand-milking in the open air. This has been led in part by the creation of an EU 'model' dairy farm built in the normal Western style and stocked with a commercial imported breed – although the uptake of this has been poor due to the feed resources needed to support it.

The newest idea to have hit Romania follows greatly with the trends spreading across much of the UK and Europe, the organic farm. Just outside the HNV region I visited Willy & Lavinia Schuster who had a very small entirely organic farm (only 7 cows) and they were proud to announce that they were the first farm in the country to join the network of World Wide Opportunities on Organic Farms (WWOOF). This organisation links volunteers with organic farms and so Willy runs his farm alone with the aid of his WWOOFer volunteers and has been able to monopolise the growing interest in higher value organic products by producing his own cheeses.

Opportunities for UK students

From the summer of 2013, the Operation Wallacea research expeditions will open and the importance of the farming systems alongside the biodiversity will be fully integrated into the work that the students undertake. The full study tours will allow students to experience a range of conservation research techniques and all students will also visit local traditional farm systems there and learn about the dairy industry whilst undertaking livestock censuses and on-site mastitis testing. Many of the students going to the site will have had no previous experience of farming systems even in the UK so it will be an excellent opportunity to raise awareness of the farming industry as a whole, something which can only help to increase interest from younger generations. From the summer of 2014, the dissertation topics will then also become available for students from universities all around the world who wish to explore these systems more in depth whilst studying animal behaviour and health.

Transferable to the UK

Although the systems in Romania are clearly very different to those here in the UK, there may be much to learn from these systems. In particular, I found that a desire to increase milk yield by Romania farmers had lead them to mix their traditional breed, Baltatā Românească, with the Holstein-Friesian and they are already starting to notice some of the health issues that UK farmers have to deal with on a daily basis such as higher rates of mastitis and lameness. On the contrary, it may be that by looking more into the traditional breeds we could find a genetic line that would be of benefit to improving the UK dairy stock.

More immediately, learning about the pasture compositions in Romania could be very beneficial too – the Romanian farmers pride the health of their cattle not only on the exercise that they get but also on the rich mixture of plant species that they are able to graze upon, including those with possible medicinal properties such as St John's Wort.

Whatever we find out in future studies, the most important aspect will always be that students interested in animal husbandry will have the opportunity to visit systems that they simply cannot see any more in the UK and hopefully we will help to inspire a new generation of British farmers.

END (1294 Words)

Image 100-0888: Milking by hand in the hills is a family affair with everyone pitching in before the milk is carried by cart to the village.

Image 100-0193: Cattle are walked quite large distances away from the village to graze at common pastures, here Baltatā Românească cattle graze alongside Limousin for beef.

Image 100-0922: The native Baltatā Românească breed mixes with imported Holstein-Friesian stock at communal milking areas.

Image 100-0977: Willy Schuster milking his traditional breed cows by hand on his organic farm.