



Green Gown
Awards 2013

Finalist's case study

Dissemination supported by:

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University of East Anglia Facilities and Services

Udderly Brilliant!

Section 1: About the project

Summary

Many business premises, areas of public land, historic buildings and even airports use grazing as a way of managing their grass areas. UEA is proud to be the first University to take a traditional means of managing land and apply it in a modern but not unique setting providing a model for other HEI's.

Delia and her sisters (a herd of highland cattle) are part of a conservation project that encourages effective environmental land management; maintaining biodiversity and enhancing the quality and character of the landscape through grazing. Cattle reduce staff time & costs, are low carbon compared to fossil fuel burning machinery & work 24 hours a day!

Project partners

Norfolk Wildlife Trust
Probation Services
Nigel Darling, Local Farmer

Section 2: The results

The problem

How do you manage the diverse flora and fauna of the fenland, flood plain and meadows that form parts of the University of East Anglia's 300 acre estate in a sustainable yet cost effective and efficient way? The answer, provide a home for a herd of highland cattle!

The approach

In summer 2012, four highland cows, Delia, Cecily, Chocolate and Cornflower – along with Chocolate's new calf were loaned to the university by a local farmer and supported by the Norfolk Wildlife Trust.

UEA is thought to be the first UK University to use cattle for conservation purposes on its land. The initiative is supported by the Higher Level Stewardship Scheme of Land Management, a project that encourages effective environmental land management, as well as maintaining biodiversity and enhancing the quality and character of the landscape.

UEA

University of East Anglia

Profile

Example:

- HEI
- 15,000 students (includes full and part time students)
- 3500 staff
- Edge of City

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The cattle were introduced to manage the land in a sustainable way. Cows are a much cheaper way of clearing the land than manpower; it would have taken ten times as long to clear the cut grass by hand. They are also improving the biodiversity of the land by grazing the land to differing heights, thereby diversifying the range of plants growing in the area.

The cattle also help stem 'succession' in which fenland reverts to wet woodland and scrub if the right environmental balance is not achieved - and their droppings act as a catalyst for invertebrate growth. Many different bugs and creatures feed on the dung they produce, and these in turn provide sustenance for the larger animals on campus such as foxes and badgers.

The Highland breed was chosen due to its suitability for rough grazing. The cattle consume plants such as reeds in addition to grass. In addition, the hooves of Highland cattle break up sections of dead vegetation well, stirring up seeds in the soil. This gives seeds that have been dormant for years the chance to germinate, providing of the campus with plants that have not been seen for many years.

Cattle have the added benefit of being able to work 24 hours a day!

This is a grazing project which utilizes cows. Whilst grazing 'is' site specific, some urban sites can be very suitable for grazing or managed to support grazing activities. With mains water supply, 24hr staff presence and CCTV to deter interference with the livestock, urban universities & colleges are often good places to provide grazing areas. 1 hectare of land will support 6 sheep or goats or 1 cow. A site needs to be made secure so that the animals are safe & of course it is important the right animals for the situation are chosen. For sites with public access, cows, (particularly Highlands or Galloway's) are the least likely to get disturbed, and are fairly placid.

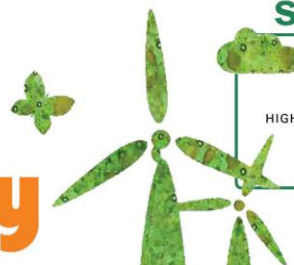
Animals are not necessary for a site to be managed /classed as part of a grazing project. If the management 'supports' grazing as part of a wider project (e.g. in conjunction with another site, college or grazier) then the grass can be managed as a hay meadow with the hay baled & taken away for winter food for cattle. The wildlife interest of the grassland will improve and they will be supporting grazing in the area. Livestock can be brought in for events or publicity, or if a grazier needs an open space for a day whilst moving animals around etc.

It is possible therefore for many universities or colleges to support a grazing project and reap the benefits which include:

- Low carbon option; no need to use fossil fuelled equipment such as mowers, etc.
- Staff, students and local community involvement e.g. student volunteers helped to create boundaries, local farmer provides cattle
- Natural and organic way to manage the estate enabling natural balance of the land to be restored. With less competition from larger, heavier plants including reed and sedge, native annuals and in particular, tender perennials for example the marsh marigold, will thrive.
- The area becomes a biodiversity study area with before and after surveys of flora and fauna undertaken by students ("after" survey currently planned for October 2013)

Our goals

- Manage the biodiversity of the University's rare and beautiful landscape with the least carbon footprint possible by using native breeds of hard cattle (and in the future sheep) and traditional farming methods including non-commercial methods of hay making.



- Stem progression of wet woodland and protect the fen and marshland and flood plain increasing biodiversity.
- Increase the invertebrate levels on natural environment areas in turn increasing whole bio diversity.
- Supply the University's kitchens with locally fed and produced meat

Obstacles and solutions

Fencing & animal proofing the area was very expensive	A grant from the Rural Payments Agency paid for the materials. The University worked in partnership with the probation service and used workers from the community payback scheme to install fencing.
Opposition from the public and in particular dog walkers who felt cows were "dangerous". Also resentment they would not be excluded from the grazing areas.	Education programme including signage at the grazing sites explaining the benefits of the project.
No sun by which to make hay! Machinery broke down	Worked with a local farmer who came to campus at very short notice to cut the hay in return for hay payments.

Performance and results

Recent surveys undertaken by Professor Iain Barr, UEA, show biodiversity has increased by 1/3 third. During the first week of December locally sourced, locally fed (on our campus), organic beef was supplied to UEA kitchens. We achieved 1000 kilos meat which had travelled a total of 40 miles in its lifetime.

The project has helped to increase awareness and understanding of sustainable land management and wider biodiversity issues with staff, students and the local community. This in turn has helped to create interest in other sustainable activities and events, for example "the incredible edible campus" and policies including sustainable food policy.

Section 3: The future

This is a project which will grow in the coming years. There will be further herds of highland cattle and these will be joined by a permanent flock of local breed, "Norfolk Horn" sheep, chosen for their suitability to the environment. This will see progression of the conservation project, with improved stem succession across a larger area.

Sharing your project

- The unique, fun element of the project has resulted in much media interest with newspaper, radio and TV coverage. Oliver Deeming, Grounds Manager has given many presentations to a wide variety of groups including Norfolk Wildlife, Norfolk County Council etc.
- Information boards have been erected to help those on campus including the many leisure and pleasure visitors understand the presence of the cattle.
- The cattle and grazing areas have been included on the "Sustainable Way Tour", a guided walk for members of the University and beyond taking in areas of environmental/sustainable interest. The "tour" is currently being made into a short film and virtual map with Delia and her sisters in starring roles! Around 100 people have taken the tour in its first year.
- Oliver is an active member of the Universities & Colleges, Grounds Officers Association and is keen to share his knowledge and experience with other Grounds Managers via this forum.



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- Norfolk Wildlife are promoting “grazing”, again Oliver is active within this organization which provides help and support to those who are considering “grazing” options.

What has it meant to your institution to be a Green Gown Award finalist?

This was the first project to be entered for a Green Gown in many years and we were thrilled to be finalists. Using Chocolate one of our beautiful “girls” to be the face of the project was risky and we knew from the outset that it would be difficult for the judges to understand that this was a grazing project which utilized cows rather than a project about cows, and that was very replicable across the sector. We had no expectation of making the finals; national recognition highlights the efforts of and gives a huge boost to our grounds team who aim not only to maintain the estate sustainably but to involve and educate UEA and the wider community about biodiversity; for UEA it has been a great 50th anniversary present!

Further information

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<http://www.uea.ac.uk/about/corporate-social-responsibility/sustainability>