

Farming for a Better Climate



Kinstair - woodland planting

Kinstair Farm near Alford Aberdeenshire is run by John French as part of a wider farming and seed business.

The farm at Kinstair covers 83 hectares and is mostly arable growing spring barley for malting and seed. The farm has also provided hill grazing for a herd of 80 beef suckler cows and calves. The farm is isolated from the rest of the farming business which is situated around 6 miles away on the other side of Alford.

In 2013, John decided to move the suckler cows and plant the 12ha of hill land with new woodlands to streamline the farming activities at the site.

| | |
|-----------|------------------|
| Name | John French |
| Farm | Kinstair |
| Locality | Aberdeenshire |
| Farm type | Cereals and beef |
| Size | 83ha |

John said “ *The grazing on the hill was hard to access and we were spending a lot of time just checking stock. Moving the cattle to the home farm and planting the hill with trees has saved us a lot of travel time and fuel while locking up a large amounts of carbon. We have only lost 20 cows as the other 60 we were able move to under utilised grazing elsewhere.*”



Case Study

Find out what other farmers are doing to improve profitability and adapt to a changing climate in our series of case studies.

There are five sets of Practical Guides covering :

Use energy and fuels efficiently

Develop renewable energy

Lock carbon into soils and vegetation

Optimise the application of fertilisers and manures

Optimise livestock management and the storage of manure and slurry

Find further information, including links to other Practical Guides and Case Studies, at



www.farmingforabetterclimate.org

Funded by the Scottish Government as part of their Climate Change Advisory Activity

Websites

www.farmingforabetterclimate.org

www.adaptationscotland.org.uk

www.agrecalc.com



Benefiting from targeted woodland planting at Kinstair

Time and cost savings

Until 1997 Kinstair was used to rear and fatten several hundred cattle. A combination of the BSE crisis and the loss of a key farm worker living at the farm made it unworkable to keep so many cattle there. The decision was then made to turn the lower fields over to arable cropping while retaining a smaller herd of 80 sucklers on the hill for the summer. As an out farm, visiting at Kinstair involves a 15 minute drive in the pickup or 30 minutes in the tractor.

With an expanding arable and seed business to run at the home farm John found the extra travel time required to manage the cattle at Kinstair an increasing burden. By John's estimates the costs in extra travel to manage the stock at this distant site totalled over 200 hours of staff time, 400 litres of road diesel for the pick up and 300 litres of tractor diesel. These costs totalled £5,800 or around £80 per store calf produced. In 2013 John decided to take the cattle off Kinstair and plant the land with woodlands. Through better management of grassland on the home farm John has been able to retain 60 of the suckler cows there. As a result the farm business as a whole has lost the output of around 18 store calves per year but with considerable time and cost savings.

Woodland planting benefits

The new plantings comprise around 12ha of predominantly productive conifers alongside broadleaves and open space. The woodland was established with SRDP support and will remain eligible for farm Direct Subsidy payments. The woodland also benefited from the sale of carbon credits to help offset the loss in agricultural land value.

The planting was completed in the winter of 2013/14. Initial establishment suffered from deer damage but this has since been brought under control. By locking up carbon in timber and soil the new plantings are expected to sequester an additional 117t of carbon dioxide equivalent per year. At the same time removal of the livestock has cut emissions from farm activity. As a result, Kinstair has now become a net sink for carbon.



Kinstair carbon changes

| (t CO ₂ e) | Pre-planting | Post-planting |
|------------------------|--------------|---------------|
| Energy use | 27.2 | 26.2 |
| Fertiliser & manure | 198.8 | 136.2 |
| Livestock methane | 151 | - |
| Total emissions | 377.3 | 152.2 |
| Woodland sequestration | -57.6 | -175 |
| Net emissions | 319.7 | -22.6 |

Source SAC AgRE Calc©

Find out more

For more practical ideas to reduce the farm carbon footprint and improve efficiency visit the website www.farmingforabetterclimate.org, follow us on Twitter @SACFarm4Climate or find Farming for a Better Climate on Facebook.