



Centre
for Biodiverse
Carbon Farming

Carbon Offsetting Model

For a more
profitable
and resilient farm



New Farming Models for an Unpredictable Future

We need to protect our futures in uncertain times. The agricultural subsidy environment is changing in unpredictable ways and the climate is becoming more erratic and prone to unexpected weather events. Farmers all over the UK are looking for new models to help protect their businesses and ensure the prosperity of their farms for generations to come.

Farmers can choose to sell the credits themselves on the open market.

The research of Prof. Martin Wolfe among others such as The Agroforestry Research Trust,

The Savory Institute and Polyface Farms offer a range of simple adaptations for arable and pasture farmers which can make their systems more biodiverse, more resilient to changes in climate and markets, and enable farms to diversify their income. They may also improve farmers eligibility for subsidies under the UK government's proposed Environmental Land Management Schemes (ELMS).

All the capital expenditure of adapting the farm system is paid for in advance by purchasers of carbon credits

The Centre for Biodiverse Carbon Farming (CBCF) works with farmers to help realise these possibilities: advising on the development of new farm designs, facilitating funding for implementation of more biodiverse systems, undertaking analysis, consultation and support to add value. All things which can support farms to prosper over the long-term.





Carbon Offsetting can Fund the Transition to a More Profitable and Resilient Farm

CBCF uses the research carried out by Prof. Wolfe as our agronomic basis and utilises funds available for carbon offsetting to model farm adaptations. This can enable arable and pasture farmers to fund a transition into more biodiverse systems and increase the long-term profitability of their farms.

Continue current arable or pasture operation with some simple adaptations.

The introduction of trees into an arable or permanent pasture system in an alley cropping formation can result in the removal of 11 ton of CO₂ from the atmosphere per hectare per annum. This can generate an additional income through carbon offsetting of £250 per hectare per annum with very low input costs. Once the reduced input costs of the arable operation and sale of tree crops are taken into account this model can equate to increases in net profits of 50%. Further opportunities for diversifying income are created as the system matures and the CBCF will accompany the farmer, providing guidance and support to increase the profitability and biodiversity of the system.

All the capital expenditure for the farmer to transition into the new farming system is paid for by forward funding from the emitters who purchase the carbon credits in advance.

Increase net profits with Agroforestry

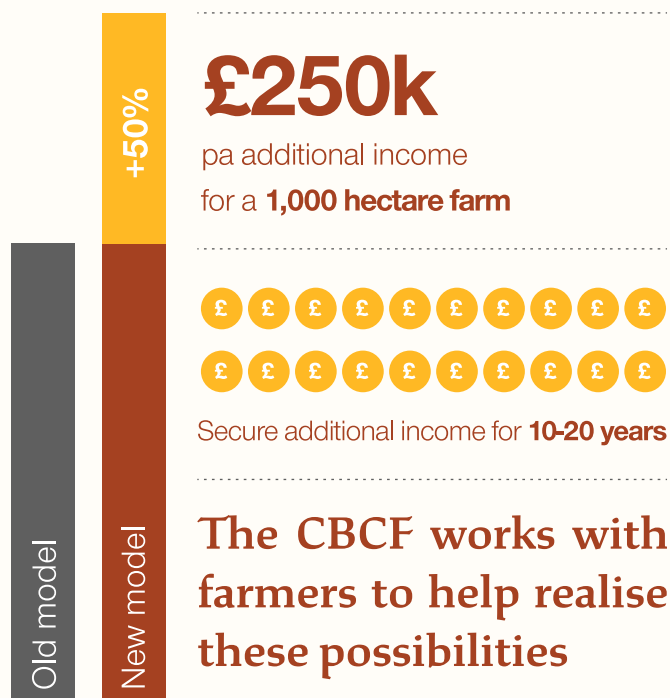
The first table gives a financial overview of the average large UK arable farm, using data from Defra. The second table shows how the addition of agroforestry onto the same farm can reduce inputs and diversify revenue sources to increase profitability.

20/21 uk averages per hectare for large cereal farming	
Income	
Cereals output	725.9
Oilseed rape output	143.2
Others Crops	197
Other Livestock Output	62.6
Other Incomes	299.7
Agri-environment and BPS	257.4
Gross Farm Output	1685.8
Expenditure	
Crops Direct Cost	378.8
Livestock Direct Cost	29.9
Products Valuation change and livestock purchases	51.3
Gross Profit	1,225.80
Overheads	819.9
Net Profit	405.90

Same averages adjusted for conversion to alley cropping	
Income	
Cereals output	508.13
Oilseed rape output	100.24
Other Crops	197
Other Livestock output	62.6
Other Incomes	299.7
Carbon Credits	250
Sale of Woodchip	125
Agri-environment and BPS	257.4
Gross Farm Output	1,800.07
Expenditure	
Crops Direct Cost	277.16
Livestock Direct Cost	29.9
Products Valuation change and livestock purchases	51.3
Gross Profit	1,441.71
Overheads	819.9
Net Profit	621.81

Increased net profits of 53%, or £215.91 per hectare.

Source: Defra – Rural Farm Business Survey 20/21



How the model works

- 1 Farmers work with the CBCF on a design for adapting their current farming system to Agroforestry and Biodiverse Farming. This includes a long-term financial plan and an agroecological design.
- 2 The CBCF works with farmers to design the project so as to become eligible for selling Verified Carbon Credits (VCC's).
- 3 The CBCF and its partners source CO2 emitters to fund farmers introduction of Agroforestry and Biodiverse Farming onto their farm.
- 4 The CBCF and its partners will take the project through the process of becoming registered to provide VCC's. Minimum 12 months from commencement.
- 5 Emitters make forward purchase of carbon credits, with funds to be released once the farmer

sequesters the carbon. The value of the forward purchase is calculated to cover all of the costs of conversion, plus provide secured income to the farmer at a fixed rate for a set number of years. The period of the fixed rate can be chosen by the farmer to suit their appetite for selling the carbon credits themselves.

6 Once the project is registered for VCC's, the CBCF works with the farmer to execute an implementation plan.

7 All of the costs of the farms' conversion to agroforestry are funded by the CO2 emitters forward purchase of VCC's.

8 The farmer is paid for every ton of CO2 they sequester using funds from the forward purchase of VCC's.

9 The CBCF works with the farmer to develop further sources of revenue through the new niche's created in the agroforestry system, to add value, and to further reduce input costs.

10 Once the entire forward purchase of VCC's has been paid out to the farmer the farmer can freely sell all future VCC's on the open market.



Photograph by IFOAM