In Galway, a farmer’s timber harvest marks the start of a value supply chain, supporting local jobs, producing renewable wood fuel and reducing carbon emissions.

Noel Kennedy forestry advisor, Teagasc Crops, Environment and Land Use Programme

Damien O’Brien and his wife, Carmel, farm sucklers and sheep in Woodlawn, Co Galway. Like most suckler farmers in the west of Ireland, they work hard to make the farm pay its way.

Last autumn, a decision taken by Damien O’Brien and his wife, Carmel, farm sucklers and sheep in Woodlawn, Co Galway. Like most suckler farmers in the west of Ireland, they work hard to make the farm pay its way.

Damien O’Brien’s clearfell produced over 800 tonnes of timber for which he received €32,000 including an additional 5.4% VAT he was able to claim as a VAT registered farmer. “I’m delighted with the return” says Damien. “The forest cost us nothing to plant and I had 20 years of forestry premiums – I’m looking forward now to replanting and hopefully seeing a return from the next crop.”

The woodchip producer

Pulpwood from Damien O’Brien’s forest didn’t have to travel far to market – only a few short miles in fact – to Aughrim Sawmills outside Ballinasloe.

The short haulage distance is a critical factor in the economics of a wood chip supply chain – a point not lost on sawmill manager Anthony Hyde. “Both pulpwood and wood chip are bulky and expensive to transport,” says Anthony. “So the shorter the haulage distance to the sawmill, and then to the customer, the better the economic and environmental savings all round.”

Aughrim Sawmills is the trusted supplier to several local customers generating renewable heat. It typically uses small- to medium-sized biomass boilers.

Consistent woodchip quality and security of supply are critical to maintaining customer loyalty and trust. Customer confidence in Aughrim Sawmills is reinforced by its accreditation to the Wood Fuel Quality Assurance (WFQA) scheme which certifies suppliers for reliable, high-quality wood fuels. Further information is available at https://wfga.org/.

The moisture content of delivered wood chip determines heat generation efficiency and customer satisfaction. But it takes time for fresh timber to dry down to a moisture content of 20%, which Anthony believes is ideal for chipping. Drying can take up to 18 months so, although harvested six months ago, it will be another while before Damien’s timber is ready for chipping and the next stage of the supply chain – delivery to a renewable heat user.

The renewable heat user

One of Aughrim Sawmills’ customers is Teagasc and every couple of weeks, less often during summer, Anthony Hyde’s son Simon loads seven tonnes of dried woodchip for delivery to the Teagasc Campus in Athenry – the main advisory and research centre for the west of Ireland.

Since 2011, staff and visitors to the campus have been warmed by renewable heat generated by a wood chip biomass boiler. This was installed by Teagasc as a significant initiative in reducing its energy usage and carbon footprint. A 300kW Herz biomass boiler is at the heart of a mini district heating system. It provides renewable space heating and hot water to a number of buildings housing 70 permanent staff and many more visiting staff and students. In 2017, heat produced by the biomass boiler was the most important energy source on the campus. It contributed one-third of all energy consumed on the site.

The boiler must stand up to economic and environmental scrutiny – it passes on both counts with flying colours. Based on today’s energy costs, renewable heat generation using woodchip is saving Teagasc in the region of €30,000 per annum while displacing over 40,000 litres of oil and reducing CO2 emissions by 100 tonnes annually.

Forestry in Galway is proving its value to farm forest owners, timber processors and end users. Strong demand and prices for commercial timber are now complemented by local wood energy supply chain making critical economic and environmental contributions to farming and rural sustainability. Fueling a better future for all.