

An overview of dairy-calf systems for meat production in north-west Europe

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The objective of 'Better-Calf', an Interreg North-West Europe (NWE) funded project, is to support rural territories and family farms by encouraging adoption of grass-based dairy calf systems. This paper will provide an overview of the first task on the Better-Calf project; to review current meat production systems using dairy calves in NWE. In all regions represented in this project, Holstein-Friesian is the main dairy cow breed ranging from ~95% to ~50% of total dairy cows in Ireland and Switzerland, respectively. The next most important dairy breeds tend to be dual-purpose breeds more traditionally associated with the respective regions. For example, Montbeliarde and Normande in France, Brown Swiss in Switzerland and Fleckvieh-Simmental in Germany. Crossbreeding dairy cows with beef sires to improve the meat production potential of progeny has increased with the greater availability and use of sexed semen being a key factor in this regard. For example, the use of sexed semen in Swiss dairy herds reached nearly 60% in 2024. In France, beef crossbreeds increased from 15% in 2014 to 27% in 2024. In Ireland, 63% of calves born in the dairy herd in 2025 were beef crossbreeds. The main beef breeds used differ greatly with Ireland favouring early-maturing breed types, Switzerland mainly using Limousin and Belgium focusing on the Belgian Blue breed. Systems of meat production range from intensive veal units to more extensive pasture-based beef systems. In Ireland, pasture-based dairy-beef systems predominate contributing 60% of prime cattle throughput. Live export of calves for veal production is also an important market. The contribution of dairy-beef to total beef output in France is lower at ~16% with veal production being the main system for dairy calves accounting for almost 60% of the total. Dairy-beef systems are based on indoor systems for bull beef or pasture-based finishing in the case of steer beef. In Wallonia, dairy calf numbers increased by approximately 30% between 2010 and 2024. Almost all dairy calves bred for meat production are raised in veal systems. The production system is quite integrated with a small number of large companies controlling the production chain. In Switzerland, 45% of dairy calves are raised in veal production systems, 20% are fattened intensively as young bulls, and the rest are raised as heifers and steers in more extensive grass-based systems. Holstein male calves in Germany are mainly finished as young bulls with a large proportion exported for veal production. Progeny from dual-purpose cows, such as Fleckvieh, have greater merit for meat production in either veal or beef production systems. Dairy calves in Luxembourg, excluding heifers needed to replace cull dairy cows, are mainly used for meat production in veal production systems. There are a number of common elements to the development of the dairy-calf meat sector across NWE regions. These include a greater focus on beef-on-dairy, increasing the proportion of forage/grazing in the feed budget and reducing the environmental impact of dairy-beef, mainly in the context of greenhouse gas emissions.