

Research confirms the carbon footprint of New Zealand beef and lamb is amongst the lowest in the world

The comprehensive study by AgResearch has found that a kilo of New Zealand sheepmeat has a carbon footprint of just under 15 kilograms (kgs) of CO₂ equivalent emissions per kilo.

Meanwhile, the carbon footprint of New Zealand beef is just under 22kgs— making the country's red meat among the most efficient in the world.

The researchers, which compared New Zealand's on-farm emissions to a range of countries' footprints across the globe, concluded that when New Zealand beef or sheepmeat is exported, the total carbon footprint is lower or very similar to domestically produced red meat in those nations. This is because New Zealand is so efficient at the farm level, which represents about 90-95 percent of the total carbon footprint. New Zealand's on-farm footprint was about half the average of the other countries compared in the study.

Based on the research, an analysis by B+LNZ and MIA shows eating red meat 2-3 times a week over the course of an entire year is just under the carbon footprint of a single passenger's return flight from Auckland to Christchurch.

The Life Cycle Assessment (LCA) study was commissioned by Beef + Lamb New Zealand and the Meat Industry Association of New Zealand (MIA). As the world's second biggest exporter of lamb and one of the largest beef exporters, sustainable farming is a critical part of the country's red meat sector strategy. The LCA was calculated using the standard GWP100 approach for converting methane to carbon dioxide equivalent to enable valid international comparisons.

AgResearch scientists also measured the carbon footprint of New Zealand beef and sheepmeat using an emerging approach known as GWP, which determines a carbon footprint based on a product's actual contribution to the warming of the planet over a period of time rather than total emissions.

The Intergovernmental Panel on Climate Change (IPCC) has found that the traditional GWP100 method overstates the impact of methane when this gas is not increasing, as is the case in New Zealand. The calculation using GWP for the period 1998 to 2018 showed that when taking into account sequestration-trees and other vegetation on farms absorbing emissions-New Zealand's sheep meat is arguably 'climate neutral' and New Zealand beef is also well on the way towards that.

That means over the last 20 years, New Zealand sheep meat has not added any additional warming. Absolute greenhouse emissions from New Zealand sheep and beef farming have decreased by 30 percent since 1990.