



*Make your space,
a healthy place.*

OUR
COMMON
FUTURE

Carbon Footprint Statement

Health Based Building has invested in connecting a carbon footprint statement to the timber products and Magnum Board products Health Based Building supply. The investment has confirmed an Environmental Product Declaration (EPD) is most commonly involved in connecting a carbon emission value to a product and from that point the value can be involved in carbon modelling software. An EPD appeared to be the logical choice for Health Based Building until Health Based Building were advised the EPD framework does not involve carbon sequestration.

Why carbon sequestration is not involved in the EPD framework has not been explained to Health Based Building. It is a valuable ability that many natural products deliver which must be involved in carbon modelling if the intention is to involve the construction industry in accurately reducing carbon emissions. Timber sequesters carbon as does Magnum Board during the lifecycle that creates the composition and with Magnum Board beyond that to sequester carbon during the manufacturing process, curing process and time installed in built environments.

Health Based Building is working with the entity that constructed the Wool Impact statement to develop a similar document for Health Based Buildings timber products and Magnum Board. That statement embedded in this document below confirms the importance of carbon sequestration as a "removal" in constructing an accurate carbon statement

Wool's Impact: Carbon Footprint

Let's make it easier to say 'yes' to wool.

Global consumers, brands, stakeholders, and specifiers are seeking transparent information about products to inform their decisions. To make it easier for people to say 'yes' to wool products the many great natural qualities of wool need to be well supported with evidence of wool's impacts on the wellbeing of people and the environment.

Life Cycle Assessment (LCA) is used to measure the inputs and outputs involved in making, using, and disposing of a product over its life cycle. LCA helps businesses understand, communicate, and highlight where to improve their products' environmental impact. Increasingly, LCA is being used to support specifiers like architects, designers, and procurement teams to choose products. Those responsible for product selection may also look for an Environmental Product Declaration (EPD) which is a trusted summary of LCA results.

There are often many stages of transformation from the wool fibre carefully shorn from the sheeps back, to a finished wool product like carpet, acoustic panels, furniture fill, etc. That's a lot of input and output data for a brand using wool in their products to get their hands on.

Wool Impact is making it easier for brands to access quality information about the impacts of producing wool. AgResearch was commissioned to use Life Cycle Assessment methodology to measure the "carbon footprint" of producing 1kg greasy wool on-farm, and explore different sensitivities.

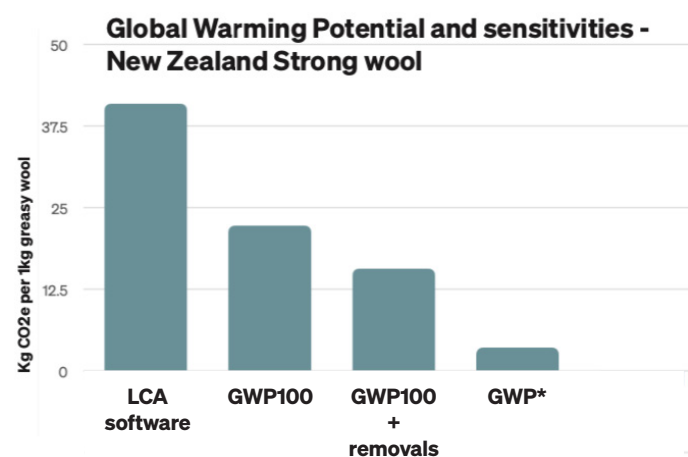
A product's "carbon footprint", expressed as its Global Warming Potential (GWP) is often used as a shorthand for understanding a products' impact on climate change. It measures the total amount of greenhouse gas emissions, including carbon dioxide – the gas most emitted by humans in the burning of fossil fuels – and methane, nitrous oxide, and fluorinated gases, which trap heat in the atmosphere, causing global warming. In addition to measuring GWP according to LCA conventions (GWP100), this work also sought to expand the discussion by; a) accounting for removals (sequestration) as well as emissions; and, b) considering the impact of long-lived gases (primarily CO₂ and N₂O) and short-lived gases (methane - CH₄) differently.

The data source.

A provider of LCA services should seek accurate data where available. In the absence of such data, LCA software draws on databases of published information. To date, there has been limited data on the production of New Zealand strong wool.

The AgResearch climate research team of Andre Mazzetto, Shelley Falconer and Stewart Ledgard drew on Beef + Lamb NZ economic service data (2018). Data relating to New Zealand's high country sheep farms were excluded to ensure the results reflected the farming of strong wool sheep only.

The findings.



- The carbon footprint, expressed as Global Warming Potential (GWP100) for New Zealand strong wool was 46% less than the GWP100 located for wool in a popular LCA software programme.
- When LCA software does not contain NZ specific data it uses global averages which are significantly higher than New Zealand.
- Factoring in the carbon removals associated with on-farm vegetation reduced wool's carbon footprint by 29%.
- GWP* is another way of looking at the impact of growing wool on the climate - treating methane as a short-lived gas. The GWP* of New Zealand strong wool was 84% less than that of its footprint using GWP100.