



Maintaining access to European Union markets for Australian canola

Conducting canola greenhouse gas emissions lifecycle assessment (LCA) from cradle-to-farm-gate to demonstrate compliance to revised EU-RED and maintaining access to the biodiesel market.

The European biodiesel market is the biggest niche for Australia's canola exports (more than 70 per cent of total exports; more than \$2 billion per year). Australia also attracts a premium for its non-genetically modified canola, representing additional income in millions of dollars every year.

The challenge

The EC revised RED mandated target of greenhouse gas (GHG) savings for biofuels feedstock entering the European Union (EU) market from the threshold value of 35 per cent to 50 per cent, starting January 2018.

Failure to demonstrate compliance of Australian canola to the revised RED would have meant a complete loss of access to lucrative markets for the industry.

The EU required an independent science organisation to prepare a report on the GHG emissions associated with the on-farm production of biofuel feedstock in Australia.

The response

The Australian Oilseeds Federation and the Australian Export Grains Innovation Centre sought our expertise to address this. With project sub-contractors Lifecycles and Meo Carbon, we undertook a full LCA and demonstrated that the GHG emissions associated with the production of Australian canola were low enough to meet the new target. Australia's *Country Report* was the first to be accepted and approved by the EU.

Australian trade officials in Brussels liaised with the Directorate-General for Energy to have the report accepted before its official approval to protect the 2017 canola exports to the EU biodiesel market, presenting an outcome of high significance for Australian canola industry.

Reducing carbon footprints in the canola production lifecycle and strengthening transcontinental relationships.

The impact

Australia continues to enjoy benefits from renewed access to the EU biodiesel market. Since October 2017, over 4.4 million tonnes of canola have been shipped to the EU, with a total value of more than \$2.5 billion dollars.

The cost-benefit analysis that only claims premiums earned in the EU market (2017–22) suggests a benefit-cost ratio (including deadweight cost) of more than 3.6. The work has prospective net present value of more than \$12 million (in \$ 2018–19).

The work has also identified environmental hotspots in supply chains to further reduce carbon footprint in the canola production lifecycle, and strengthened transcontinental relationships while providing a much deeper understanding of the Australian cropping environment to the outside world.

Prospective future impacts include assessments for broadacre grains, new business opportunities and advanced scientific developments to better meet future sectorial needs (e.g. tools to benchmark environmental performance).