

Software zeros in on carbon pollution

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Local researchers are developing an online tool that would allow farmers to monitor their greenhouse gas emissions and virtually test ways to reduce carbon pollution.

The software calculates a grower's [carbon](#) footprint by analysing production data - such as fertiliser, insecticide and machinery use - against detailed [satellite imagery](#) of the land.

Curtin University environmental scientist and lead study author Deborah Englebrecht says the system takes into account the many different processes used in growing crops.

"It looks at everything that would go into the production of producing wheat, from pre-farm processes to just before disposal," Mrs Englebrecht says.

"The important thing about this system is that they (the farmers) will be able to determine mitigation measures.

"This is the first time that remote sensing, Geographical Information Systems (GIS) and life cycle assessment systems have been integrated into one tool."

Australia's agricultural and livestock industries are the nation's largest emitters of global warming [greenhouse gases](#) methane and nitrous oxide.

Earlier this month, the federal government said it plans to axe a tax on

carbon and bring forward the launch of an Emissions Trading Scheme (ETS) to 2014.

The scheme will place a cap on the amount of carbon businesses are allowed to emit into the atmosphere.

Currently farmers are excluded from paying [carbon tax](#), but under an ETS they will be able to earn and trade [carbon credits](#) by storing carbon or reducing their [greenhouse gas emissions](#).

Mrs Englebrecht says her team worked with the WA Department of Agriculture to study 24 paddocks in the Wheatbelt and found that [fertilisers](#) were one of the biggest producers of greenhouse gasses on those lands.

The research will be published this month in the scientific *Journal of Cleaner Production*.

She says her tool will give farmers the ability to input local and imported fertilisers into the system to quickly and easily see which brands work better to reduce their carbon footprint.

"We would like to put the system onto an ipad or iphone so they could input their geographical coordinates and insecticide use in and right there and then they would be able to generate their carbon footprint," Mrs Englebrecht says.

She says the project will be completed within a year.

Provided by Science Network WA

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