

# Weed sizzle holds potential for paddock control

October 14 2015, by Jo Fulwood, Sciencenetwork Wa

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Precision Agronomic's propane gas weed killer prototype.

Australia's passion for a barbecue is transcending from the home into the paddock.

A company in Esperance has created a system which attaches to a [tractor](#) and fires or barbecues the leaves on hard to kill weeds as the tractor moves through paddocks.

The innovation could represent the next step in the fight against chemical resistant weeds infiltrating WA's grainbelt and be a useful tool for [farmers](#) in their [weed management](#) strategies.

Precision Agronomics senior agronomist Quenten Knight says the system uses propane or LPG gas to burn the cells in a weed plant at the one to three leaf stage.

Mr Knight says the invention can only be used by those farmers practising controlled traffic farming (CTF), using a chaff deck during harvest.

He says with increasing numbers of farmers, particularly in the Geraldton and Esperance port zones, turning to controlled traffic systems, the invention could become a big part of weed management across WA.

During harvest, farmers using the controlled traffic system and a chaff deck, dump the chaff and weed seeds directly on the wheel tracks in a one-pass operation.

Mr Knight says once the weeds germinate in autumn, it is time to attack the plants.

"We use propane gas or LPG gas burners under shrouds, or covers, to trail behind a tractor in each wheel track, burning the weeds that have germinated," he says

Temperatures up to 500 degrees Celsius can be achieved under each shroud.

"Currently it's just a prototype and we have a lot of testing still to do before commercialisation," Mr Knight says.

"We know that once the plants get too big, they can't be controlled by this method, but we need to work out the exact growth stage of the plant where it is most susceptible.

"We also need to establish the ideal speed for the tractor to go to achieve the desired weed control."

Mr Knight says plans include trialling the injection of diesel fuel into the shrouds to increase the heat under each cover.

He says the ideal rotation would be to burn the weeds two to three weeks after planting a canola crop.

"Canola is the best crop to compensate for those tramlines that have been burned," he says.

Mr Knight says the prototype allows for farmers to switch the burners on and off inside the tractor cab.

He says this system will be a cost effective, non-labour intensive way to tackle [weeds](#).

*This article first appeared on [ScienceNetwork Western Australia](#) a science news website based at Scitech.*

Provided by Science Network WA

Citation: Weed sizzle holds potential for paddock control (2015, October 14) retrieved 26 April 2024 from <https://phys.org/news/2015-10-weed-sizzle-potential-paddock.html>

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