

# SACE Research Project Ideas

## Food, farming and fibre



**Genetically Engineered Crops** – recent introduction of genome editing technology CRISPR. Ban on GM Crops in South Australian. Views of scientists and public on scientific issues ('Pew Survey' – is GM safe to eat?)

**Food technology** - Natural additives in bread compared to “non-natural” additives and the effect on taste, texture and the look of the baked product. Governments proposal for an innovative food manufacturing hub in SA and the development of new food products. Consumer food trends and how the industry changes to suit what is popular.

**Pesky pests** – Impact of Mr Fox on livestock in South Australia and the drafting of a new fox policy. Beating pest bugs with natural predators in Biological control. The problem with the fruit fly and how South Australian is on the trail to kill its buzz

**SMART Farms** – What apps are available to help grains growers in South Australia and how are they effective. The benefits and limitations of using GPS and GIS mapping on farms. Boosting the breeding rates of cows by tracking their social behaviour and movement with GPS collars. Collecting data from crops using drones and the issues related to privacy of the data collected.

**Water use** – The development of efficient irrigation in growing vegetables in our dry state. Employing technologies like Enviroscan to monitor water usage. Farms using desalinated water for their crops e.g. Sun Drop farm.

**Growing food by design** – Creating effective greenhouse through advancement in technology. The role of The Plant Accelerator in South Australia and the use of SmartHouses in growing and researching food. Vertical farming – they're doing it Korea, would it work here in South Australia.

**Something Fishy** - Environmentally sustainable fish farming in South Australia e.g. Robarra expansion for Barramundi farming, Current project to build up stocks of Murray Cod in our states river. Fishing with Supertrawlers and the what this could mean for SA waters. Turning Pipi (cockles) from food for fish into food for people.

Your Notes

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<p><b>Where do I start looking?</b> Below are some suggestions of organisations to search. Use these to find key words, resources, contacts, research news, media articles.</p> <p>You might also find inspiration in Ted Talks &amp; Podcasts !</p> <p>In your research project include media articles from ABC Rural, Landline, PIRSA. Email experts and ask them a couple of questions. Can you go out in the field and look for yourself. Why not get hands on and do an investigation at home or school to add to your project.</p>	<p><b>General</b></p> <p>Primary Industries and Regions South Australia (PIRSA)          South Australian Research and Development Institute (SARDI)          ABC Rural          RiAus          Agrifood  <i>Harvest</i> Podcasts Radio Adelaide          Waite Institute blog          Australian Museum and SA Museum          Questacon</p>
<p><b>Food</b></p> <p>Australian Institute of Food Science and Technology          CSIRO          FOODplus          South Australian Food Users Guide          FSANZ          SARDI Food Innovation</p>	<p><b>Animal and Plant Health</b></p> <p>Roseworthy – Companion Animal Centre and Equine Centre          Biosecurity SA          Plant Cell Walls ARC          Belair National Park Nursery          Adelaide and Mt Lofty Botanical Gardens          Meat and Livestock Australia (MLA)</p>
<p><b>Genetically Modified Crops</b></p> <p>Australian Centre for Plant Functions &amp; Genomics (ACPFPG)          FSANZ          DAFF          CSIRO</p>	<p><b>Horticulture</b></p> <p>Horticulture Australia ‘HAL’          Australian Institute of Horticulture          Adelaide and Mt Lofty Botanic Gardens</p>
<p><b>Environment</b></p> <p>Barossa Environment Council – e.g. your local environment council          Landcare Australia          ZeroWaste Centre SA          Envirotube          Australian Wildlife Conservancy</p>	<p><b>Water resources</b></p> <p>SA Desalination Plant          Bolivar          SA Water          Murray Darling Basin Authority          Banrock Station Wetlands, Urrbrae Wetlands or your local wetland          The Macquarie Marshes Wetland System</p>
<p><b>Aquaculture</b></p> <p>Seafood SA          SARDO Aquaculture          Australian Aquaculture          FRDC</p>	<p><b>Agriculture</b></p> <p>National Farmers Federation (NFF)          Future Farmers Network          University of Adelaide – Roseworthy          Future Farming Forum</p>