focus on WATER research

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Evaporation mitigation solutions
for Australian cotton farm storages

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What are you researching?
The team from the University of Melbourne, led by Professor Greg Qiao, are researching techniques to reduce evaporation losses from storages by working on developing a monolayer system, a thin film sitting on the water surface, which has shown promise in reducing water evaporation

What have you found?
Laboratory and small-scale trials have demonstrated reductions up to 60 percent. Previous large-scale field trials on open dams have identified that wind was a critical factor in the loss of the monolayer film and evaporation reductions. Wind speeds above 3 m/s caused compression of the film to the downwind side of the dam resulting in a loss of savings. The team are currently working on addressing the issues with wind and are currently conducting trials in long wind tunnels which replicate the wind impact.

Why is it important?
Evaporation from water storages on farm dams is a major problem for irrigators across Australia, with annual losses above 1,320 gigalitres annually.

Where do I go for more information?
You can contact Greg Qiao, University of Melbourne, via email: gregghq@unimelb.edu.au

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Figure 1: Monolayer film in the lab.

Best Practice