

Research Directions

Office of Research Services

Fire Safe Seeds

Dr Charles Morris, School of Science, Food and Horticulture, has received funding from the NSW Department of Environment and Conservation under the UWS Research Partnerships Program.



This research aims to get a better understanding of the fire tolerance of seeds in order to assist in fire management. Preliminary work by Dr Morris has found that while hydrated seeds of plants are generally killed by temperatures up to 80 degrees centigrade, seeds of some wet habitat species can tolerate temperatures up to 125 degrees centigrade.

The project will expand on this finding by experimenting with wet habitat species to discover how widespread their ability is to withstand high temperatures. The seeds will be heated to determine the temperature range within which they survive to germinate and the limits of heat above which germination doesn't occur. Mirroring the bush fire conditions that seeds experience, the seeds will also be exposed to smoke - which has been previously found to produce higher rates of germination.

Other experiments will compare hydrated seeds from wet and dry habitat species to see if they have different levels of tolerance to high temperature.

The results will lead to better informed decisions about fire management for the Department of Environment and Conservation.

Project Title: *Predicting the likely impact of fire intensity on wet and dry heath species*

Funding has been set at \$20,000.

Collaborating Partner:
NSW Department of Environment and Conservation
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