

Green growth after a fire

BY EMMA HORN

FOR some native plants growing around the region, recent bushfires may be a blessing in disguise.

Over the past decade, Wagga-based plant biologist Associate Professor Geoff Burrows has found that extreme heat can accelerate the germination of acacia plants.

After a significant fire event, the seeds of the acacia - commonly referred to as wattles - will develop a small hole in their hardened outer-shell which will allow water to channel to the seed's embryo. This microscopic tube that develops, Professor Burrows describes as a 'rain gauge'.

"For a woody plant, the acacia is short-lived. It'll die after about 15 to 20 years, but then after fire people often look out and say, 'where did all of these come from? The trees may have died out but their seeds were dormant, waiting for fire,'" Professor Burrows said.

Awaiting a fire event, Professor Burrows said, the seeds can lay dormant in the earth for up to 40 years.

"It's amazing, something so small, that looks so delicate needs heat of around 80 degrees to pop this little lens," he said.

Fire, followed by a sustained period of rain, will



IN THE LAB: Associate Professor Geoff Burrows observing microscopic acacia seeds. **Picture:** Emma Horn

cial results in the growth of the acacia. Those conditions, Professor Burrows believes, have been seen around the Riverina's recent fire grounds.

"I haven't seen the exact figures, but I do know that

ba and that area have had a lot more rain than we have in Wagga," he said.

"If it was enough, there would probably be acacias growing already."

Additionally, he said, the recent conditions may also

gion's acacia-like eucalyptus. "I wouldn't be surprised if

some of the eucalypts would have buds on their stems by now," he said.

"Most trees in fire will either die or re-sprout from their existing stems. Eucalypts adapted this design to cope with the increasingly tumultuous

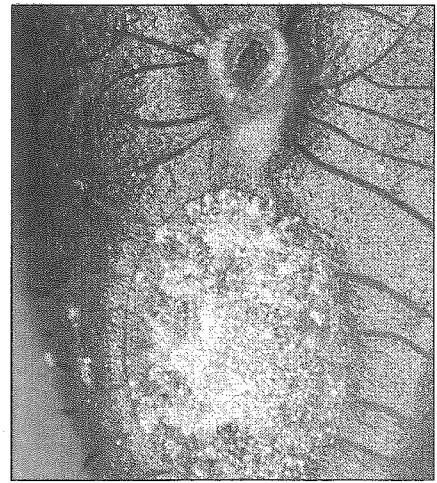
at doing that."

Despite the devastation of flora and fauna across the nation, Professor Burrows said it was heartening to know that the Australian bush had adapted this design to cope with the increasingly tumultuous

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BEFORE: An acacia seed under the microscope before a fire has opened its 'rain gauge'.



AFTER FIRE: The acacia seed will 'pop' its rain gauge (far left) under extreme heat before germination.

"Even in devastation, three months later, there will be green shoots again," he said.

"In most cases, the bush will look after itself. When all is said and done, the Australian bush has coped with the hot, dry and fires for