

UWA technology licensing / partnering opportunity:

## **Flash flaming of seeds to improve land restoration**

Researchers at the University of Western Australia and Botanic Gardens and Parks Authority have invented a device to carefully treat fluffy plant seeds, making them easier to handle.

### **Problem:**

Fluffy appendages and hairs on wild collected seeds make them difficult to handle. Their bulk takes up a lot of space in storage facilities and subsequent transport in trucks. The appendages stick seeds together and this precludes efficient sorting and passage through direct seeding machinery, and hinders the application of seed enhancement technologies such as the coating of seeds in artificial polymers that improve germination and aid precision machine sowing.



### **Solution:**

Our researchers have developed a device that results in the careful removal of these appendages/hairs, solving these handling problems without damaging the seeds or their germination potential.

The seeds of interest are repeatedly rotated through a carefully-controlled flame, resulting in the removal of the fluffy appendages. Treated seeds have been shown to be easier to handle and coat.

### **Stage of development:**

A bench scale system was used to generate preliminary data; this has since been scaled up and is being used to test a wide range of seeds.

### **Intellectual Property:**

The design of the device is protected by a PCT patent application.

### **The Team:**

**Dr Andrew Guzzomi** is an agricultural engineer and has overseen the design and construction of the seed flamer. Plant biologists at UWA and BGPA have conducted the seed trials.



*UWA is seeking a commercial partner to develop this technology further.  
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