

## Giant drone planting 40,000 tree pods a day in Australian Botanic Garden at Mt Annan

Landline / by [Sean Murphy](#)

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Giant drones are the latest weapon in an ongoing "war" against the introduced African olive tree in southern Sydney.

The drones are planting out a steep ridge line in the Australian Botanic Garden at Mt Annan in Sydney's south, where 85 per cent of the highly invasive species has been cleared so far.

The park's director of horticulture, John Siemon, said the aggressive woody weed had covered almost 20 per cent of the 416 hectare park before a concerted effort began to remove them.

### Tree-planting drones

The drones are being trialled with funds from an Australian Research Council grant as part of a study led by Western Sydney University.

The start-up Air Seed claims its drones can plant up to 40,000 seeds a day, are 25 times faster and 80 per cent more cost effective than traditional planting methods.

The company hopes to raise \$10 million in capital later this year and to be planting up to 100 million trees a year by 2024.

Co-founder Andrew Walker said the 36-kilogram drones were built with off-the-shelf technology but were programmed to identify where not to plant seed pods.

A smaller sentry drone plots the landscape before seeding taking high resolution photographs and collecting data.

"We use that information to identify the best places to plant, but also the places that you don't want to plant such as fallen trees, rocks, gravel, roads and so on," Mr Walker said.

"So the algorithm creates the optimum flight path for the drone to fly and tells the drone where to plant those species."



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"Usually, in a normal restoration project, you would plant tube stock and often that's only a canopy species that you're planting," she said.

"With our product, we can plant those trees, those canopy species and at the same time some things that are not going to grow as tall.

"The mid story species sometimes that's an acacia or a like a bottle brush or something like that.

"In a lot of the ecosystems that we're working in, we can also restore the vines that are growing along the ground and provide a lot of structure to the ecosystem."

Mr Siemon said the Mt Annan trials would aim to improve the park's biodiversity by enhancing endangered ecological communities such as Western Sydney dry rainforest and Cumberland plain woodland.

"But over time we hope to diversify that because we are a botanic garden at the end of the day, and there's 25,000 Australian seed bearing species at our disposal that hopefully, we can incorporate into our landscape."

He said it would take about 12 months to see if the trees, shrubs and grasses planted by the Air Seed drone were successful.

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