



## FRIENDS OF THE ARDERNE GARDENS

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26 February 2023

### **ARDERNE GARDEN : PSHB PROGRAM**

**The arrival of PSHB in the southern suburbs poses the arboretum at the Arderne the gravest threat it has ever faced since the original trees were planted in the 1850s.**

At Arderne gardens we are incredibly concerned about the proximity of this. It literally surrounds us.

We have on our team Adam Harrower from SANBI, Paul Barker, who has for many years studied the PSHB infestations as they have struck in California, Israel and South Africa. I believe him to be the most knowledgeable expert on PSHB outside of academic circles.

I am an arborist of 35 years experience, and have also been learning about this and watching this for some years. We are as best prepared as we could be. There is a financial “war chest” for this, but ongoing fundraising will be crucial as we go through this tough time ahead.

Perhaps most importantly we have the generously given time, experience and expertise of Professors Trudy Paap and Wilhelm De Beer of FABI and Professor Francois Roets of Stellenbosch University. We will be following their research projects closely, and their recommendations. There will be ongoing development and refinement of our management plan as we go along.

We are working on an approach that is tailored for this garden specifically.

It is a challenging site as there are many rare species, we have no data on the susceptibility of many of them. There are also some of the most iconic and well loved trees in Cape Town.

**We are investing heavily in verbenone repellents, hanging masses of them in the champion trees that are vulnerable, then lures and traps are to be deployed around the perimeter.**

Passing beetles are sexually attracted by the lure pheromone mimicker in the traps, and should they not be enticed, they will hopefully be fooled by the verbenone repellent sachets tied in the canopies of the champions, these pheromone mimickers attempt to trick the beetle into thinking that the tree is infested already and is not an attractive host.

**We also plan preemptively removing Acer negundo (category three invasive) within the garden along with a few other low value reproductive host species, like the decayed oaks on the Herschel boundary, and some viburnum shrubs.** Acer negundo accounts for over 90% of infested trees in the surrounding area, and accounts for 100% of the outlier species, and 100% of the severely infested species. They are referred to as “amplifier” species. To borrow from covid terminology, they are the super spreaders of PSHB. Removing them also helps us to have more resources available for fewer and more special trees.

**This will all be funded by Friends of the Arderne Gardens (FOTAG) and its donors.** The city has given us their blessing. The project will be ongoing and the number of lures and repellent deployed, and the number of trees propagated will be determined by the amount of money we can raise. Our expenditure so far on the “wedding tree” Moreton bay fig for repellents is about R35000.00.

Given the absolute urgency of this project we are planning on commencing with the removal of low value reproductive hosts next week.

We will not be enticed by the attractiveness of pseudoscientific treatments, untested products with no efficacy trials, or toxicity tests, snake oil or similar products.

I am aware that we stand to lose many trees, as does the rest of the city. We need to state clearly that we as an organization made these decisions based on the scientific data available. We take responsibility for our decisions, and as chair of FOTAG, and as an arborist, I am prepared to accept any reputational damage that may arise once trees start dying.

For some time now Adam, Paul, and I have been collecting seeds of rare trees, we have been propagating them at the tiny nursery space at Arderne and at Kirstenbosch, once they are successfully germinated or cuttings have successfully rooted, we grow them on at the nursery at Platbos Forest Reserve.

We now urgently need to expand this project, to grow the PSHB resistant, climate change resilient trees to replace those that we will lose, to improve the diversity of exotic trees in the arboretum and to research and make available the trees that will be a planted in our streets in the years to come, once this terrible disease has run its course.

**Francois Krige**

FOTAG Chairman