

How to clear aliens

Alien species such as Port Jackson, Australian Myrtle, pine and gum trees needs to be cleared from all public and private land in term of the environmental laws of the country.

The main gains are:

- Great increase in water availability- aliens use as much as five times the water that indigenous species use
- Dramatic reductions in fire risk- risks are reduced by as much as ten times compared to indigenous species
- Increase in biodiversity with all its associated benefits- over four hundred indigenous species offer a much more stable and sustainable environment than an environment dominated by a few invasive species

The most important things to be gained from the correct clearing of alien species are

- Solving the problem by the correct management, rather than making it worse with incorrect management
- Very reduced costs of clearing if the vegetation is dominated by indigenous species
- Reduced costs of future fire control

The major problem is the spread of alien species into new areas and the increase in density of areas already partly invaded. A proper understanding of the invasive species and the indigenous species is required to put forward a management strategy that can solve the problem in the longer term almost permanently rather than a disaster management strategy which looks good in the short term, but makes the problem worse in the medium or long term.

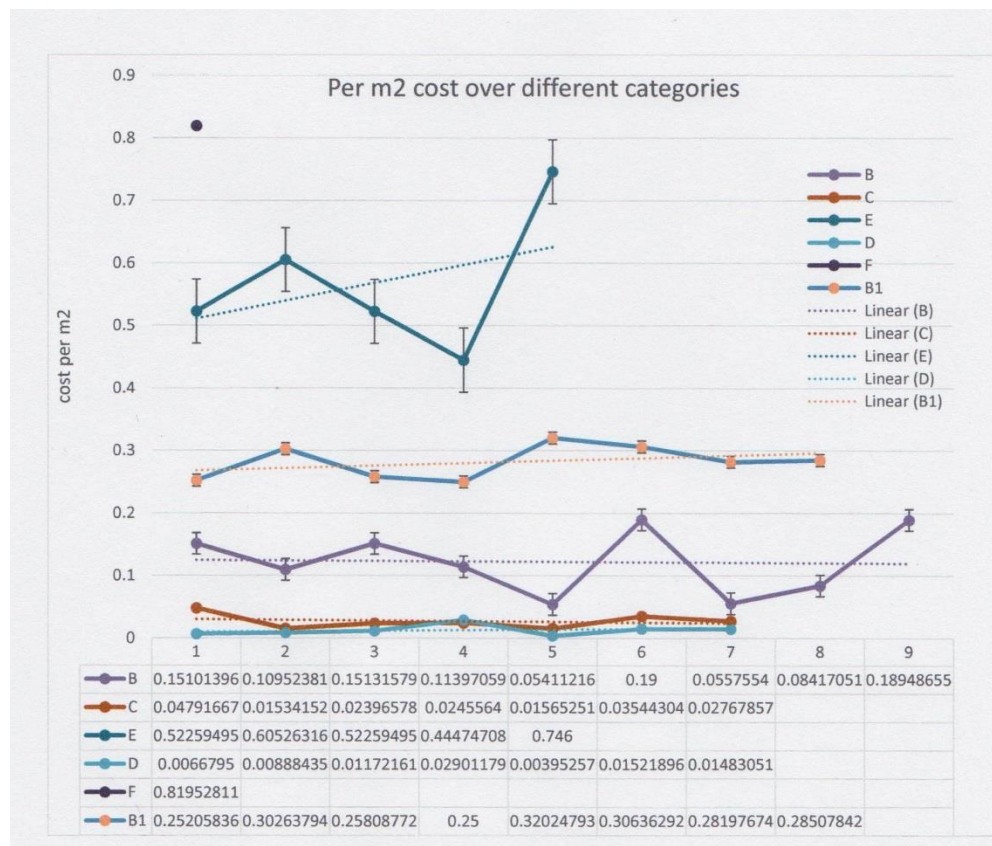
Examples of different management strategies even in the short term are illustrated in the picture below.

Six months after Erf 752 cleared by Bruce with the extension cleared by OSM. Now cleared again by Botfriends at 1 labour days for Erf 752 and 12 labour days for the extension in the background. Again the extension has not been cleared correctly and by next year there will be an even bigger difference.



Costing has been carefully done on different types of invaded areas. There are huge differences in the costs of clearing depending on what state the area is now in and what sort of recent previous

management has occurred. Direct costs vary from less than R100/ha to around R8 000/ha. The most notable increase in costs is from clearing medium invaded areas where most of the plants are seedlings (R 1 500/ha) to clearing areas where most of the growth is from stumps from previous mowing or slashing without proper control of stumps (R3 500/ha). This will be repeated next year where regrowth of seedlings will average around R800/ha and mowed or slashed areas remain at R3 600/ha. In five years the total cost of properly cleared areas with good follow ups will be about R3800/ha versus R18 000/ha



'B' Purple Botfriends normal

'C' 'D' Orange, light blue Botfriends 2nd and 3rd clearing

'B1' Blue Cleared incorrectly by others, then cleared by Botfriends

'E' 'F' Green & black Severely invaded areas big trees (repeat will be below purple line)

The cutting, mowing or slashing of alien plants is ineffective, removal of the roots is necessary with as little disturbance to the soil as possible. Then growth of seedlings is the only problem to be deal with in the future. This is much cheaper and good competition from indigenous plants allows nature to help do half the job for you. Poisons are for ever, they do not break down and accumulate in the soil, so should only be used when absolutely necessary, as little as possible and hopefully only once.

Chopped down aliens are best used as a mulch, especially on bare areas, they return nutrients to the soil, and provide a good seedbed for the growth of seedlings. The timing of seedling removal is critical. Remove alien seedlings when they are small, it's cheaper and allows indigenous seedlings to grow.

Do not allow aliens to grow to the point that they start to flower and produce more seed. It will reduce immediate costs but increases overall costs dramatically.

Good luck with clearing alien species and let's illuminate them from our environment. It is quite possible with applying the right techniques and a concerted effort by all of us.