

## REVEGETATION

**Y**ES, heap burning can be an effective, cheap and fun way of achieving regeneration of vegetation in open areas.

During the summer of 1992/1993, I decided to try out the 'heap and burn' technique for stimulating regeneration of woodland species in open areas near my parents' holiday house south of Mandurah, adjacent to the Harvey Estuary. The surrounding bushland was mainly open peppermint (*Agonis flexuosa*) woodland, with some flooded gum (*Eucalyptus rudis*) and golden wreath wattle (*Acacia saligna*), but with no regeneration occurring, it was gradually becoming more open.

There were many open areas, and a lot of fallen branches and old wood. I created heaps in six open areas with this fallen material, taking care not to use any large logs that would be providing ground-level habitat, and making sure that the heaps were away from tree bases so that they did not get burnt out in the process. I also took the precaution at the time of burning the heaps, of raking a firebreak around each heap to ensure the fire did not spread out through the dried fuel from leaf litter and old wild oats.

During the Easter break, April 1993, after there had been some rainfall to dampen the ground, I burnt the heaps. This was done one at a time to ensure we could control the fires, and have a safe edge before moving to the next one. Each heap was about two cubic meters in size of stacked wood. The wood was well cured, so with a bit of dry grass and leaves, they took off easily.

As the heaps burnt down, I pushed them in to ensure that they burnt up completely, and were thus safe to leave. This left the edge of the burnt areas reasonably bare, and the centre of the heaps with an accumulation of ash and coals. When the fires were fully extinguished, I raked the heaps out over the area burnt to ensure the coals cooled down, and to respread the ashbed over the burnt area.

## YES, IT WORKS!

*Ken Atkins*

It was now time to wait and see (and pray for good rains).

In December, I revisited the sites, and was amazed to see hundreds of seedlings in the ashbeds (except one). Most of the seedlings were



1 December 1993:  
Ashbed from heap burnt in April 1993, showing peppermint seedlings.



2 March 2003:  
Row of ten year old peppermint saplings in old ashbed.



3 March 2003:  
Large open area with ten year old peppermint and golden wreath wattle regeneration following heap burning, with new heap being created in foreground for next treatment.

peppermint, with a few other species including golden wreath wattle, flooded gum and spearwood (*Kunzea glabrescens* – previously *K. ericifolia*) in single sites. The ashbeds were bare of weeds, giving these seedlings a better chance at initial establishment. It would now depend on follow-up rains.

Over the following years the seedlings thinned out and those remaining grew well, with a number becoming established in five out of the six ashbeds. Ten years down the line and they are over my head in some cases. Success!

So, it proved to be an effective method for establishing vegetation, although the regeneration reflects the depauperate nature of the existing vegetation. As with any regeneration, the success is dependent on the rainfall, and if at first you fail, then try, try again.

It also proved to be a cheap method, with no specific ground preparation, weed control, or seed collection. However, it is dependent on the seed present in the area, either stored on the surrounding trees, or residual in the soil. If seed is not present, then supplementary seeding would be necessary. The cheapness of the method does mean, however, that if it does fail because of lack of rain or seed, then it does not take much to re-treat an area.

And finally, fun? – well yes if you have a teenage son that shares your love of playing with fire. It is a good way of diverting arson skills into something positive! Of course, I only do it for the regeneration (but marshmallows do toast nicely on the coals!).

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