

To bag or not to bag? – that is the question.

Robyn Benken



Why bag?

Armies of the ubiquitous green plastic plant guards pop up around the country every winter.



The main reason given for using guards is to protect seedlings from humans and animals, eg dogs or rabbits, and to create a micro-climate inside the guard which may aid plant growth. Rain collects and moisture runs down the side of the plastic and this may assist the survival rate of seedlings. The guard also traps warmth, which may be a positive (but possibly a negative in summer).

Another reason for using guards is to “make a statement”, to show that works are going on and to delineate a revegetated area. Sometimes guards include weed suppressing matting.

Using plastic guards for seedlings is a practice we at CCA always question anew, at each project site. Since 1996 we have explored many issues of the ‘to bag or not to bag’ debate.

At Grant Marine Park, a secondary dune in North Cottesloe there are some rabbits and in winter rabbits prefer juicy new seedlings to the baited oats at the rabbit baiting station. Rabbits and the small number of people, children, and dogs who continue to trample and pollute the area are the major reasons we use plant guards at this restoration site. Sometimes people may even be dissuaded from walking off the paths by these obvious (green plastic) signs indicating the endeavours of volunteers.

Why not?

Bryan Way foredune on the central Cottesloe foreshore is CCA's present Envirofund project site. This is a fenced site and CCA has planted almost 2000 seedlings there recently, without using guards. I was questioned on several occasions why we did not use guards at this site. Firstly there is no evidence of rabbits. Also, the site is close to two big pubs and at times, the temptation to pull out all the plastic bags and throw the sticks around seems to have appeal for vandals. This behaviour has destroyed many seedlings.

Drawing attention to new plantings can also bring out the other vandals who are solely concerned with their sea views – those who are sure that Norfolk Island Pines rather than 60cm high ground covers are being planted. Seedlings have been destroyed by these people. This is despite the fact that CCA always distributes information and 'how to contact us' leaflets to the neighbourhood before we commence a project in an area. Other people become upset as they find the guards ugly and a blot on the landscape.

Recently Richard Cooke and I braved wild, wet, and windy conditions for several hours to re-install guards and add others around seedlings that had been planted the previous day by ten experienced Cottesloe Coastcarers at Grant Marine Park. The weather had been very stormy overnight and more than half (about 150) of the newly erected guards had collapsed. Quite a few seedlings had been broken and damaged by the flapping guards. Some unprotected seedlings had been wind damaged too, but not as many were damaged as those which were 'under guard' and where the guard was flapping about.



For a comparison, on the same day we surveyed the state of two thousand 'unguarded' seedlings at the Bryan Way foredune site, to compare with those at Grant Marine Park, and over all the condition of these was excellent. Surprisingly, we did not find one single seedling damaged by the strong winds and rain. The unguarded seedlings were, however, planted 10 days before and others had been in the ground for two to four weeks.

At similar exposed sites where there is moving sand, an eddy of sand can be created around the base of the guard. I have seen seedlings

and their entire root ball, lying inside a guard on top of the sand, as if they were not ever planted. On other occasions the seedling has been totally buried by sand inside the guard. Of course this is why brush material or matting is required in these areas before planting, but again this is the ideal and not always possible.

In my experience the biggest issue is the time involved in attaching guards properly and securely in the first place, and then maintaining the guards until their timely removal. Plants which are left in guards for too long can become weak, top-heavy, and leggy. Richard noted that some mature plants seem stressed in bags and predatory organisms may find the protected environment inside the plastic, suitable for them.



Volunteer groups try to use their time (and funding) wisely. There is so much work to be done in our natural areas and often if it is not carried out by volunteers then it is not done at all. Planting seedlings on a steep dune face, carrying equipment and buckets of water and wetting agents, (often needed in Cottesloe), then applying guards, properly, to each plant adds considerably to

the time involved and the costs of planting. And this is not the end of it by any means, guards need to be maintained regularly at project sites which are very exposed to the weather.

Every time we walk up and down dunes maintaining guards we are trampling the area further. I think that volunteers' time is better spent hand weeding or seed collecting or doing many of the other chores needed than using plant guards where they might not be absolutely necessary.

Your views?

I would be pleased to hear from others about their own, long term, on the ground experiences using plant guards. I am interested to hear too about the length of time people leave guards on plants. Please add your comments to the August 2007 post on our blog at <http://cottesloecoastcare.blogspot.com/> and let us know what you think or email us at info@cottesloecoastcare.org.

August 2007

Further References

Turner, S and McLean, B. Optimisation of Greenstock Survival for Restoration of Bold Park.

Shane Turner and Bernard McLean from Botanic Gardens and Parks Authority, WA, studied a re-vegetation programme at Bold Park for three years (2002 – 2005) to evaluate site conditions, planting techniques, planting time impacts, the impact of tree guards and weed control on greenstock establishment. Twenty thousand seedlings from 12 plant species were used.

As far as the use of tree guards is concerned their recommendation is:

"Unless absolutely necessary (to avoid rabbit predation) avoid using tree guards where possible. However, where tree guarding is necessary remove these before late spring (before plants become too big) and the elevated temperatures of summer arrive or alternatively the use of non-stretchable onion bags may be a viable alternative".

They also recommended using quality greenstock, to finish planting by late June and to spray for weeds prior to planting (preferably within 7 – 14 days).

They evaluated many other different treatments, (the use of soil wetting agents, fertilizers, anti-transpirants, salicylic acid, and the anti-predation product 'Deter') and none of these showed any major positive effect on greenstock establishment.

Coastcare Community Handbook. SA Dept of Environment & Heritage.
<http://botanicgardens.sa.gov.au/coasts/coastcare/revegetation.pdf>

"Individual tree guards for wind protection are not recommended in unstable areas, as wind eddies can scour the surface of the soil and leave bare roots".

Landcare online. Planting Native Vegetation - Tips for success.
<http://www.landcareonline.com/page.asp?pID=44>

"The use of tree guards, weed mats and mulch can result in a five fold increase in labour and material revegetation costs as well as significantly reducing the area revegetated. By themselves, these products do not guarantee 80pc plant survival and should not be considered an adequate alternative to proper site preparation which includes residual herbicide control. Although tree guards are costly and time consuming to erect, they may be necessary in areas with severe frosts, high winds or at risk from pest damage".....