Weeds - targeting your efforts

Lake Macquarie Landcare

Landcare Fact Sheet No.2

Landcarers devote a considerable amount of time and effort into dealing with weeds on their site. This fact sheet suggests a strategic approach to make the most of these efforts, whilst also protecting the wildlife and other values of your site.

What is a weed?

A “Weed” is defined as a plant out of place. It is typically a plant that has been introduced to an area where it has a negative effect on the local ecology or land use. Native Australian plants can also be weeds if they are introduced into a new area.

All plants have evolved with factors that limit their growth (e.g. predators). Introduced species have left their limiting factors at home and therefore have a major competitive advantage over the locals.

Sometimes weeds are referred to as ‘noxious’ or ‘environmental’ weeds. Noxious weeds are plants that have been declared noxious and must be managed according to the weed declaration. Environmental weeds are plants that although not declared noxious, cause a problem to the local environment. More information on these categories is available at www.dpi.nsw.gov.au

Should we remove all weeds?

Some weeds on our sites may be providing a benefit, such as:

- Providing habitat or food for native wildlife (e.g. dense vines, such as Morning Glory, have been known to house possum dreys)
- Preventing erosion e.g. of stream banks
- Maintaining continuous canopy cover in a wildlife corridor
- Providing shade and shelter in an otherwise bare landscape

Above: Lantana is a weed that should be addressed, but if we take it all out at once we may be exposing the local birds to predation by cats or reducing a food source for nectar-feeding birds such as the Eastern Spinebill.

At one Landcare site in New Lambton Heights, a dense infestation of Lantana, Privet and Tobacco Bush, was known to support wildlife such as the Satin Bowerbird, Regent Bowerbird, Brush Turkey, Squirrel Glider, Powerful Owl and numerous Ringtail and Brushtail Possums! In these situations the weeds should not be removed until they can be replaced gradually with natives..

By learning first about the functions that weeds on our site are currently providing we can better decide which weeds might need to be carefully targeted, left to last or managed in other ways (e.g. regular removal of seeding parts instead of complete removal).

Looking at the values weeds provide can also indicate what values need to be present in the native plants that we help re-establish. For example, we should:

- Replace Lantana with prickly native species, such as *Citriobatus*/Orange Thorn, *Melaleuca nodosa*/Prickly-leafed Paperbark, *Bursaria*/Blackthorn or *Maclura*/Cockspur Thorn, or with dense native vines, such as *Cissus* spp. /Native Grapes, *Pandorea* sp./Wonga Wonga Vine and *Stephania*/Snake Vine.
- Replace fruiting weed species such as Privets and Camphor Laurel with Lillypillies, Blueberry Ash, Muttonwood, Sandpaper Fig, Native Olive, Native Elderberry, Red Ash, and native laurels.
- Replace the exotic Elephant's Ears, Canna Lilly, Indian Ginger, Palm Grass and Giant Reed on the creek bank with natives, *Alocasia*/Elephant's Ear, *Crinum*/Stream Lily, *Alpinia*/Native Ginger, *Lomandra*/Mat Rush and *Dianella*/Flax Lily.

Above: Weeds like Alocasia spp., Elephant's Ears, in addition to stabilising creek banks, may also be catching sediment that would otherwise end up in the Lake, extracting nutrients from the system and providing habitat for birds such as Swamp Hens.

Above: Native species such as Dianella (Flax Lily) can help replace reedy weeds that are stabilizing creek banks and providing habitat, as long as the replacement is done gradually.

Lastly, we need to accept that the best regeneration strategies for both flora and fauna are long term. A 'Backyard Blitz' approach to Landcare is not appropriate and can create many environmental problems.

Which weeds should we concentrate on removing ?

Many weeds have minimal impact on your site and will probably be out-competed by healthy natives in time. Some weeds however, have the ability to overpower the ecology of your site if given the opportunity. Removing these plants will provide opportunities for local natives to recolonise the area. Targeting these weeds will be the best use of your Landcaring time. Help in managing weeds may be available through the Landcare Resource Centre.

The Agreed Action Plan developed for your site with the Landcare Coordinator will help you know which weeds are a priority for removal on your site.

Commonly targeted weeds include those in the following table. Not all of these weeds will be present on every site and Agreed Action Plans created with the Landcare Resource Centre provide site specific information on which weeds to target.

Common Name	Botanic Name	Common control methods
African Olive	*Olea europaea*	Cut and paint
Bitou Bush	*Chryanthemoides monilifera ssp rotun-data*	Manual removal / Cut and paint
Blackberry	*Rubus fruticosus*	Spray (Contact LRC)
Bridal Creeper	*Asparagus aparagoides*	Manual removal / Stem scrape
Buffalo Grass	*Stenaphrum secundatum*	Manual removal of runners
Camphor Laurel	*Cinnamomum camphora*	Cut and paint, inject stem
Cape Ivy	*Delairea odorata*	Manual removal
Cassia	*Senna pendula*	Cut and paint
Castor Oil Plant	*Ricinus communis*	Manual removal / Cut and paint (note sap poisonous)
Coral Tree	*Erythrina X sykesii*	Cut and paint/ Inject stem
Crofton Weed	*Ageratina adenophora*	Manual removal
Glory Liliy	*Gloriosa superba*	Manual removal of all parts (Contact LRC)
Green Cestrum	*Cestrum parqui*	Manual removal / Cut and paint (Contact LRC)
Ground Asparagus	*Asparagus aethiopicus*	Manual removal of core
Japanese Honey-suckle	*Lonicera japonica*	Cut and paint
Kikuyu Grass	*Pennisetum clandestinum*	Manual removal of runners
Lantana	*Lantana camara*	Manual removal / Cut and paint
Madeira Vine	*Anredera cordifolia*	Cut and paint – remove nodules
Morning Glory (Blue & Costal)	*Ipomoea indica and I. cairica*	Manual removal / Stem scrape
Moth Vine	*Araujia sericifera*	Manual removal / Stem scrape
Mother of Millions	*Bryophyllum delagoense*	Manual removal
Ochna (Micky Mouse)	*Ochna serrulata*	Cut and paint
Privet - broad / small leaf	*Ligustrum sp*	Cut and paint/ Inject stem
Turkey Rubarb	*Acetosa sagittata*	Manual removal / Cut and paint
Wild Tobacco	*Solanum maritianum*	Manual removal / Cut and paint

How can we be sure that we are removing weeds?

Target weeding will help reduce the risk of removing natives by mistake. Choosing a weed to target and discussing with your group how to identify it is a great way of controlling this risk.

All plants have differences that help us identify one from another. For example Lantana has square stems and thorns, the native Poison Peach has a round stem and no thorns. If you're not sure, leave it until you find out.

See the Weeds InfoPack for a list of excellent web links and resources to assist with Weed Identification and removal. Landcare Team Leaders who have undergone training at the LRC are also provided with a "WEEDeck" containing 36 weed identification cards.

Summary of Target Weeding process

1. Identify the role weeds are playing on your site and note any values to wildlife and water quality etc.

2. Start weeding at the top of the catchment or in better areas and do not over-weed more than the group can maintain (these principles help to reduce weeds from re-filling weeded areas and are discussed further in Factsheet 1 Site Planning).

3. Concentrate on removing weeds that are providing less values and those that are 'transforming' your site's ecology or having the most impact.

4. Weed in mosaics (weeding small patches here and there but leaving enough plant material next to the patches) to help maintain habitat and other benefits.

5. If planting is needed, replace weed species gradually with natives that perform the same function.

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