

WEED REMOVAL TECHNIQUE

HAND-WEEDING

This is a common method of weed removal. It is essentially pulling out weeds, roots and all, by hand. Gloves and long sleeved shirts should be worn to guard against sharp debris in the soil, or allergic reactions to the weed material. A trowel or boning knife can also help to loosen the soil while hand weeding to ease roots out of soil intact.



SEED HEAD REMOVAL

Ensures that the plant will not be able to reproduce. All seeds should be bagged and disposed of via an appropriate green waste system. Care should be taken not to spread seed, whilst attempting removal. When you are using secateurs it is also important to cut away from yourself and to wear gloves to reduce injury.



SCRAPE AND PAINT

This technique is commonly used on vines or woody weeds with an extensive root system (such as Ochna or Blackberry). Use a moderately sharp knife and lightly scrape from the stem base up to either the first branch or 10-15 cm up the main stem. Start the scrape as close to the root base as possible. Immediately after scraping apply neat glyphosate onto the scraped surface, either using a brush or applicator bottle. This allows more herbicide to enter the plant than if you used the cut and paint method. If a stem is thicker than 3 cm scrape and paint both sides of it. When you are using herbicide wear PVC coated gloves to protect against contamination, and while scraping to protect against knife injury.



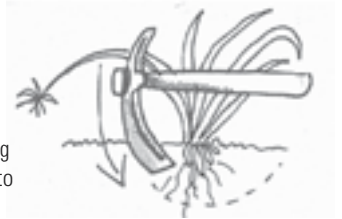
CUT AND PAINT

This is a technique used to remove woody weeds. Cut as low and as flat to the ground as possible with a secateurs or saw (depending on the size of the plant trunk). Make sure that the cut is flat (horizontal) so that when herbicide is applied it will not run off. A cut at a sharp angle could also be a hazard. Apply the herbicide evenly either using a brush/applicator bottle and follow up quickly after cutting the stem for best penetration of the herbicide into plant system.



MATTOCKING

Mattocking out weeds with thick or tuberous roots can also be used as an alternative to herbicide. This is an effective way of removing Chlorophytum, Asparagus fern, thick grasses, Ginger Lily and other similar weeds. Safety glasses should be worn due to flying dirt that could get in your eyes. Be aware that varieties of spiders tend to hide in root bases so gloves should be worn. Care should also be taken while swinging a mattock when there are others nearby. A short handled mattock is best.



CROWNING

Crowning is another way that weeds with tough root systems or rhizomes can be removed. Using a moderately sharp knife and with a circular motion cut into the soil and roots around the root base. Care should be taken while using a sharp knife so wear gloves. Do not leave your knife 'lying around' when it is not being used but place it back into your pouch. Also remember your knife is not a lever. A levered knife will usually break.



BIOLOGICAL CONTROL

Involves the introduction of a predator to the environment after rigorous scientific testing. The biological control is often an insect or fungus or other organism that feeds on the weed resulting in dieback or death of the plant.



SKIRTING

A bush regeneration term describing the action of cutting away vines growing over trees/shrubs. Skirting kills the top of the vine and allows light in to the plant that was being smothered.



HERBICIDE USE

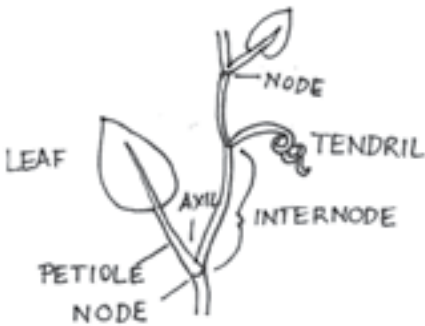
Always use herbicides such as glyphosate according to product label directions. Be familiar with the Safety Data Sheet and correct usage for the product. This booklet has referred to herbicide use including spraying. When considering spraying, always be mindful of habitat and proximity to creeks, rivers and water bodies that fauna inhabit. We have not included rates or detailed descriptions of herbicides application in this booklet deliberately as Council is not an authority to provide this information and many weeds require off- label permits. It is also subject to change and out-date.



Volunteers of the Hornsby Shire Council Bushcare program are not permitted to spray herbicide at any Council managed Bushcare site due to the regulatory requirements of the *Pesticide Act* and certification required under that Act.

GLOSSARY

BASIC LEAF STRUCTURE:



ALTERNATE LEAVES:

(showing simple and compound leaf structures)



ANNUAL:

A plant that grows from seed, matures and sets seed then dies in one year.

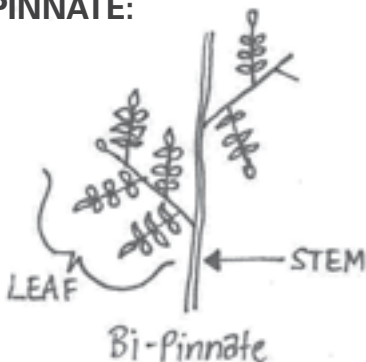
BERRY:

Fruit that has one or more seeds surrounded by soft flesh.

BIENNIAL:

A plant that grows from seed, matures and sets seed then dies in less than 2 years.

BI-PINNATE:



CAPSULE:

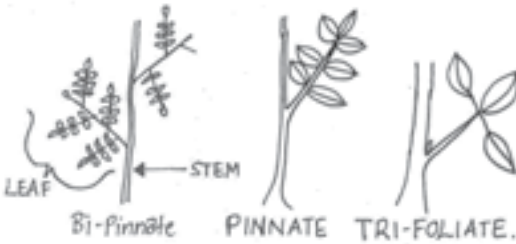
Part of the fruit enclosing the seed.

COLONISER:

The first plant to emerge as a seedling in disturbed areas (i.e. in landslides, where a tree has fallen over or human land clearing that has increased the amount of sunlight reaching the ground surface).

COMPOUND LEAVES:

A 'leaf' comprising of several 'leaflets'.



DECUSSATE:

Describes leaves that are arranged opposite on the stem but at right angles to the pair of leaves above.



DISCOLOUROUS:

Being of one colour on the top surface and another colour on the under surface.

ERADICATE:

To remove and destroy.

FROND:

Leaf structure of a fern.

LENTICELS:

Small breathing holes up the stems of some plants.

MONOCULTURE:

A plantation, or large area of plants that has only one species growing in it.

NODES:

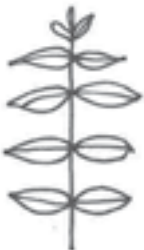
A portion of a stem where a leaf, root or bract (leaf like structure) arises.

ODOROUS:

Having a smell.

OPPOSITE LEAVES:

Leaves that are arranged at the same level but on opposite sides of the stem.



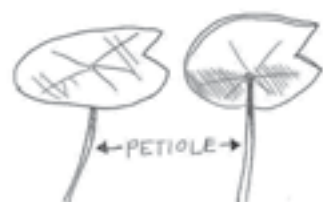
PALMATE:

Compound leaf with 3 or more leaflets arising from the one point at the top of the petiole.



PETIOLE:

A small stem or stalk that connects the leaf to the main plant stem/trunk.



PERENNIAL:

A plant that persists for 3 or more years.

RHIZOME:

An underground stem.



POD:

A seed capsule that is long and dries out to reveal a row of seed inside.

RUNNER:

A slender prostrate stem, having a bud at the end, which sends out, leaves and roots also referred to as a stolon.



SCLEROPHYLL:

Plants that are adapted to drier areas, these types of plants generally have features such as oil glands, thick leaves, reduced leaves and more to prevent water loss.

SHEATH:

A long tubular structure either entire or split down one side of a leaf blade.



SURFACTANT: A spreading or wetting agent that is added to herbicide to maximise herbicide contact to leaves.

TERMINAL: At the end, at the tip of.

TUBER: An underground swollen stem containing food reserves.

TRIFOLIATE: Having 3 leaflets.

TRI-VEINED:
Having three approximately longitudinal main veins

UNDERSTOREY:

A plant in a forest/woodland system that is below the canopy. This can be a shrub, grass, sedge or small tree.

VEGETATIVE REPRODUCTION:

Being able to grow from a portion/small part of the plant without seed.



HORNSBY ONLINE HERBARIUM

The Hornsby Online herbarium is a useful resource for anyone wanting to identify plants in the Hornsby Shire, or Sydney region.

It catalogues hundreds of native plants (and many weeds) found in Hornsby Shire, and is a database allowing users to search images and information for plant identification purposes.

It is highly recommended for volunteers/bush regenerators to use as a valuable resource, to learn plants in individual Bushcare sites, you could even download images of species at your site as you find them, print them up and make a site specific reference book! Go onto the Herbarium website now, and test it for yourself!

The Hornsby Online Herbarium is accessed through hornsby.nsw.gov.au

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