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BIOSECURITY GROUP INC.

YOUR LAND
YOUR FUTURE

What are weeds and why are they a problem?

A **weed** is a plant considered undesirable in a particular situation, "a plant in the wrong place". A weed usually requires some form of action to reduce its effect on the economy, the environment, human health and amenity. Weeds are also known as invasive plants.
A weed can be an exotic species or a native species that colonises and persists in an ecosystem in which it did not previously exist. Weeds can inhabit all environments; from our towns and cities through to our oceans, deserts and alpine areas.
Throughout Australia, weeds are spreading faster than they can be controlled and management of them is consuming an enormous amount of resources. Weeds are among the most serious threats to Australia's natural environment and primary production industries. They displace native species, contribute significantly to land degradation, and reduce farm and forest productivity.
Invasive species, including weeds, animal pests and diseases, represent the biggest threat to our biodiversity after habitat loss. Weed invasions change the natural diversity and balance of ecological communities. These changes threaten the survival of many plants and animals as the weeds compete with native plants for space, nutrients and sunlight.
Throughout Australia, weeds are spreading faster than they can be controlled. Nationally the impact of invasive plants continues to increase with exotic species accounting for about 15% of all flora. This figure is increasing by about ten species per year.
Weeds typically produce large numbers of seeds, assisting their spread. They are often excellent at surviving and reproducing in disturbed environments and are commonly the first species to colonise and dominate in these conditions. Seeds spread into natural and disturbed environments, via wind, waterways, people, vehicles, machinery, birds and other animals.
Human activities and introduced animals, such as rabbits, cattle, horses, goats and pigs, can create good conditions for weed growth and contribute to weed spread. Weeds can contribute to soil disturbance, loss of native plant cover, and changed burning patterns. They also thrive where fertilizers and other wastes are washed into bushland, leaving extra nutrients in the soil.

Governance of Weeds... What does it mean?

There are many classifications of weeds that vary from national, state and local government.
To help focus national efforts to address weed problems across Australia, a list of Weeds of National Significance (WoNS) was compiled. This is an Australian-wide registry.

To protect Western Australian agriculture the Department of Primary Industries and Regional Development regulates harmful plants under the *Biosecurity and Agriculture Management Act 2007 (BAM Act)*. Plants that are prevented entry into the State or have control or keeping requirements within the State are known as **declared pests.** For some declared pests, landowners have a legal obligation to manage the spread.

The Western Australian Organism List (WAOL) contains information on the area(s) in which a plant is declared and the control and keeping categories to which it has been assigned in WA.
Under the BAM Act, local government authorities can prescribe any plant, other than a declared plant, to be a **pest plant.** It is each local government authority's responsibility to schedule a plant for pest plant status and administer the pest plant sections of the BAM Act in respect of that plant.

Leschenault Biosecurity Group and Weeds

LBG is a Not For Profit organisation created by the community to address increasing concerns of vertebrate pests and weed pests in the Leschenault Biosecurity Operational Area. The group was originally formed in 2014 out of growing community concern for declared pests, and their impact on local producers and landholders.
In 2018, LBG became a Recognised Biosecurity Group (RBG) in accordance with the *BAM Act.* The Act sets out to reduce the impact of declared pests by enabling community governance through RBGs. RBGs are authorised by the Minister for Agriculture and supported by Department of Primary Industries and Regional Development.
After consulting the community, LBG has identified the following weeds as a priority and a target for management efforts;

Narrow Leaf Cottonbush
Cape Tulip
Arum Lily
Blackberry
Apple Of Sodom
Bridal Creeper
Paterson's Curse

Weeds and YOU.... What's your responsibility?

The work undertaken by Biosecurity Groups like LBG is intended to add value to pest and weed control undertaken by individual landholders. Weed management, however, is most effective when we work together as a community as a united front. Weed problems are complex, and efforts to reduce their impacts must be coordinated across all sections of society. Land managers and land holders can spend considerable time and money each year in combating weed problems and protecting ecosystems and primary production on private and public land. LBG is working hard to ensure a coordinated effort occurs across the operational area.

The Invasion Curve

Over time, a weed invasion/incursion consists of sequential phases of introduction, establishment and spread until, in the absence of control, the population can fill its entire potential range. Some species spread slowly, whereas other spread rapidly. The full range of weed management options generally fall into four categories or types, depending on the stage of invasion: **prevention, eradication, containment and asset protection.** This helps demonstrate the wide range of tactics, management approaches and people required to successfully respond to weed challenges.
These stages of management can be applied at the national scale (for example, preventing a new weed species from entering Australia) or at a state, regional or local scale (such as preventing a weed from entering a property). The nature of weed dispersal pathways means coordinated action by all stakeholders is necessary to effectively prevent new incursions and minimise the impacts of established weeds.
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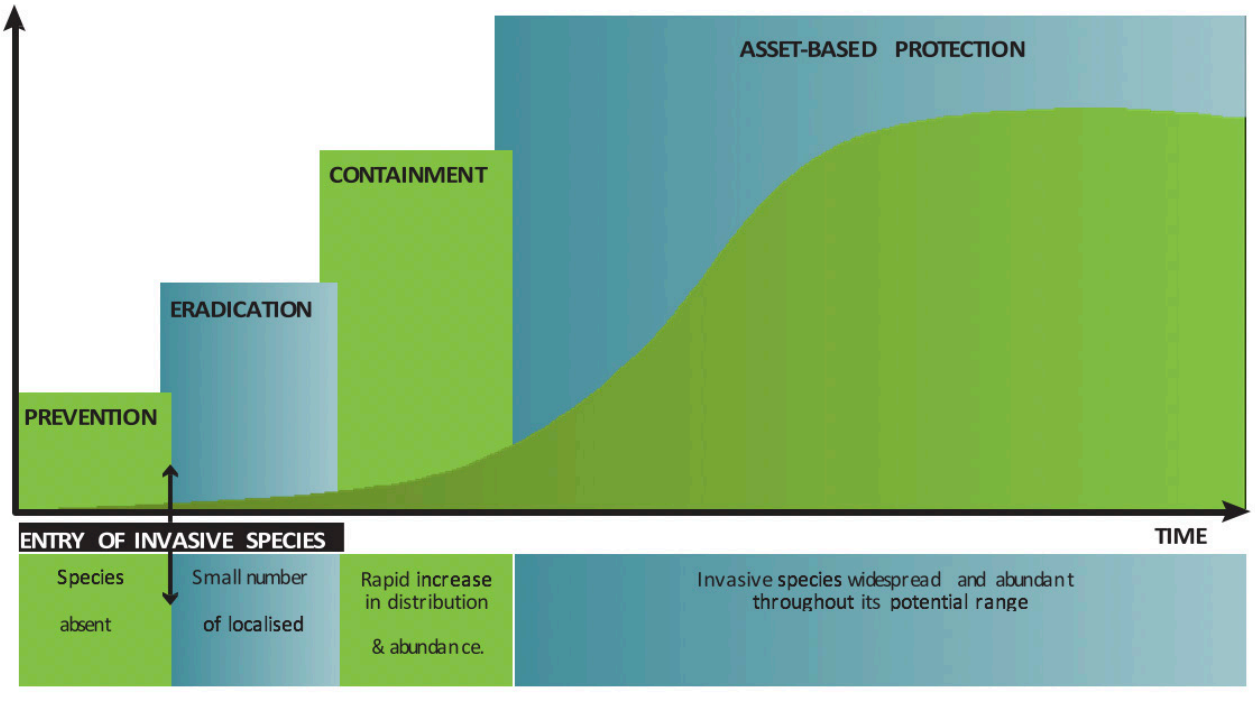
TABLE 1: THE INVASION CURVE



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Weed Identification

Correct identification of a plant is the first and most important step in weed control. Correctly identifying the weed you wish to control will save you time and money! Incorrect control strategies can also have a negative impact on the environment, as well as potentially hindering future control.

Is it an annual or a perennial?

Annual plants complete their entire life cycle in a single growing season. The seed will germinate, and then develop a root system, stems, and leaves. Once mature, the plant will flower, produce seeds, and then die off. The newly produced seeds will then stay dormant until the cycle begins again next season.
It's important to note that although this process will always be completed within a year, it can also be much quicker. Some vigorous species, such as dandelions, can produce several generations within a single season. However, these highly productive plants are still classed as annuals. Annuals tend to pack a lot of activity into their relatively short life cycles. They have one shot at producing the next generation, so often produce copious numbers of seeds.

Perennial plants can stay alive for several years and produce many rounds of flowers and seeds over their entire life cycle. Technically, a perennial is any plant that lives for three growing seasons or more, but in common use the term usually describes smaller herbaceous plants rather than larger trees, bushes, and shrubs.
Perennials can either be 'evergreen', meaning they keep their foliage all year round, or they can die back in winter before reappearing in spring from the same root base. This root base is commonly bulbs or tubers.

What's in a name?

A plant may be called many different things, whether it be its Latin name (sometimes called scientific name) or a common name. Scientific names allow us to be more precise as each species is taxonomically classified using this nomenclature.
One plant may have several different common names, or one common name may be used for a completely different plant elsewhere. So, we sometimes need to rely on the Scientific name when we discuss control- to avoid confusion!
For example; ***Asparagus asparagoides,*** is the latin name for Bridal Creeper, which is also called many other names around the world including; bridal-veil creeper, *Gnarboola*, (in South Africa) Smilax or Smilax Asparagus.

PLANT STRUCTURE
Useful Diagrams

DIAGRAM 1: STRUCTURE OF A GRASS PLANT

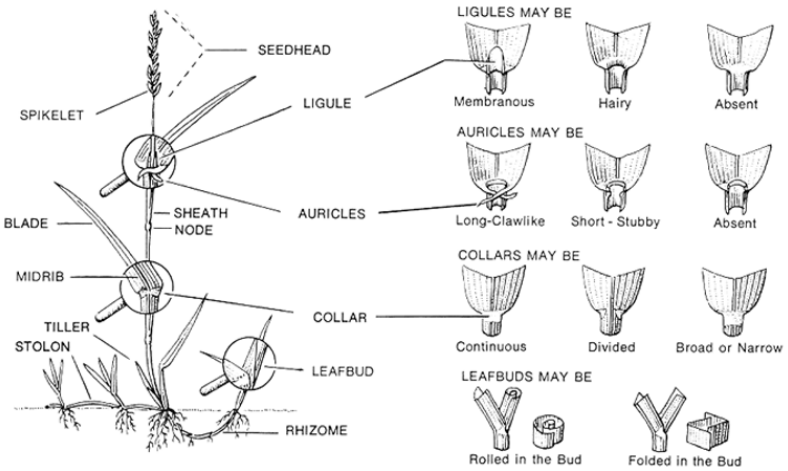


DIAGRAM 2: STRUCTURE OF A PLANT

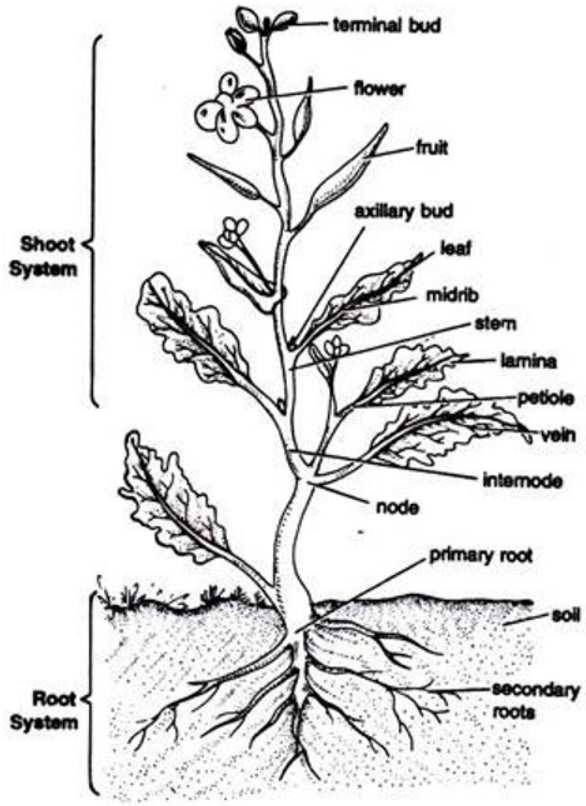
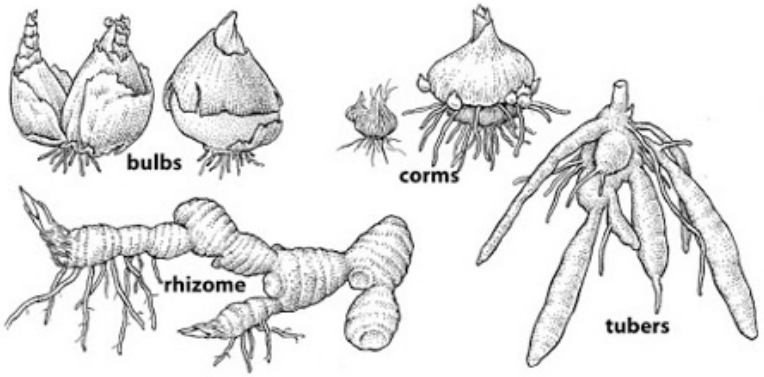


Fig. 149. A complete plant of Brassica campestris.

DIAGRAM 3: TYPES OF ROOT STORAGE SYSTEMS



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Weed Identification... Need help?

When identifying weeds in the field you can use a field guide, manual, or phone App.
Alternatively you can collect the necessary information and ask a knowledgeable source for assistance.
If you would like help to identify a weed, make a note of the characteristics of the plant, and ensure your photographs give enough detail. This includes writing down or photographing;

1. Leaf shape and structure, as well as arrangement of the leaves on the stem.
2. Presence or absence of hairs or spikes
3. Flower structure colour and size
4. Size, shape, structure and arrangement of fruits and seeds
5. Evidence of roots, rhizomes or underground structures
6. The habit of growth (branching, climbing, creeping etc)

Taking some close-up pictures of the mean features, as well as a photo of the plant as a whole, is a great start!

Then you can go to one of the following sources.

RESOURCES FOR WEED IDENTIFICATION

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Leschenault Biosecurity Group
Email info@lbginc.org.au
Text to 0488 021 344
Message us on Facebook

MyPestGuide Reporter

Download the MyPestGuide App

weedsAUSTRALIA

Weeds Australia
weeds.org.au/identify/

FloraBase the Western Australian Flora

Florabase
Florabase.dpaw.wa.gov.au

Facebook Groups
Weeds of Western Australia Group

The Pest and Disease Information Service WA (PaDIS)
padis@dpird.wa.gov.au

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This handout was prepared by Leschenault Biosecurity Group Inc 09/09/20 with reference to many online sources.
For further information on these references please contact LBG.
All information contained is intended as a guide and LBG takes no responsibility for misuse of information and/or advice.

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