Natural Resources and Environment
AGRICULTURE
RESOURCES
CONSERVATION
LAND MANAGEMENT

Landcare Notes

How weeds spread

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June, 2000
PP0084
ISSN 1329-833X

Introduction

Weeds are spread in many different ways depending on the type of plant. Once the means by which a weed has spread is identified preventative measures can be taken.

Methods of Weed Spread

Some of the more common methods of weed spread and possible preventative measures are described below:

1. Bulk Seed and Certified Seed

Weed seeds are often found in seed purchased for sowing pastures or crops. Seed may be certified or uncertified and both may contain contaminating weed seeds. Noxious weeds cannot be legally sold for sowing.

Certified seed is produced under the strict supervision of the Academy of Grain to ensure that the seed is true to type as described on the label. Certification does not guarantee that the seed is weed-free but does guarantee that the seed lot has been officially sampled and tested in an accredited seed testing laboratory and is free of noxious weeds. Uncertified seed can be produced by anyone, and is produced without official supervision. Seed which has failed to meet the high varietal or physical purity standards demanded of certified seed can also be sold as uncertified seed.

Under the Victorian Plant Health and Plant Products Act, seed must be labelled with the proportion of both pure seed and other seed, but does not require labelling of the name of any weed seeds. To check for the prescence of all other seeds present in a seed lot, purchasers should request the Statement of Analysis from the seed retailer.

All newly sown paddocks should be checked regularly for signs of weed emergence.

2. Stock Feed

This is one of the most common means by which weed seed is spread. Check the origins of feed or hay as this may help to avoid the introduction of new weeds.. Reduce the likelihood of seed being spread throughout a property by feeding out in a confined area or in one paddock.

Where possible, try and buy feed which is locally grown to reduce the chance of introducing new weeds that are not already present in the area. Be suspicious of unfamiliar plants that germinate in the areas where introduced feed has been put out.

3. Stock

Similarly, new stock should be confined to one paddock for a week after arrival. This allows time for any viable seeds still in the digestive tract of the animal to be expelled.

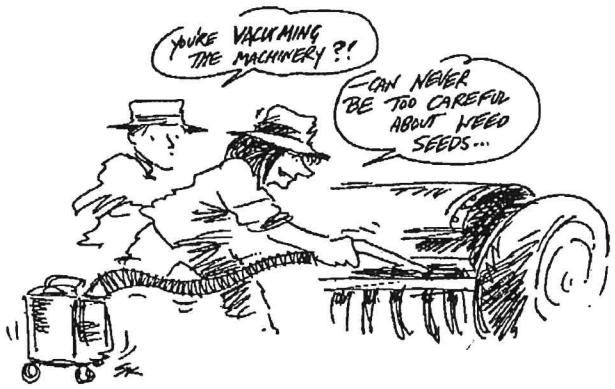
Check stock for weed seeds. Buying sheep off-shears (shorn) will reduce the incidence of weeds being introduced this way. Continue to check for weeds emerging where the new stock have been.

4. Machinery

Should be cleaned after use in a weed infested paddock. Before using equipment in another paddock wash it down and clean out any trays, sieves or boxes. Washing should occur either in the infested paddock at its entrance otherwise, use an area where the weed seeds washed from the machinery will not drain away to infest clean areas.

Seeds can be transported on tyres, in road materials such as gravel or sand and in contaminated produce that still

remains in the equipment. Graders and earthmoving trucks are major transporters of weed seeds.



5. Soil Disturbance

Minimize the amount of soil and vegetation disturbance when carrying out work. Disturbed sites create an ideal seed bed for both existing and introduced weed seeds.

6. Humans and Animals

Check your own clothing, socks, cuffs, jumpers and boots etc., after walking through weedy areas. Try to remove and destroy all weed seeds before walking around your property.

Dogs and cats can pick up seeds on their coats and spread weeds. Wild animals, particularly vermin such as foxes and rabbits, play a major role in distributing weed seeds. Birds are important in transporting the brightly colored and berry type seeds such as Blackberry and Boxthorn.

Alligator weed has been spread widely through its use as a food plant. Alternative non-weedy plants should be grown instead.

7. Garden Escapees

Many of today's weeds were introduced to Australia as garden species which have since "escaped" and become naturalised.

When considering the introduction of a new plant to a farm or garden try and determine its potential for escape and subsequent invasion of other areas. It is always best to plant non-invasive species.

8. Water

If water enters or drains through a property from outside or land is in a flood-prone area, regularly check for weeds or new plants, particularly after a flood. Several plants have seed or vegetative parts which can be spread by water for example, Noogoora Burr and Willows.

9. Wind

Look around the immediate area and identify those weeds in nearby paddocks and on adjoining properties that are not on your property. On a windy day when plants are seeding you can be sure that weed seeds will blow your way!

Vigilance in eradicating new weeds before they seed is an important means of preventing further spread. Co-operative work with neighbours, informally or through Landcare groups can also help minimise weed spread.

10. Explosive Ejection

Many plants with pods are leguminous and disperse their seeds through explosive ejection. On maturity the pods of these plants burst open and eject the seeds, eg., furze or gorse seeds have been known to travel up to five metres.

11. Vegetative

Many weeds have the capacity to spread vegetatively ie., they do not need to produce seed. These plants can reproduce through roots and cuttings. Thus the use of machinery to break up these plants will only spread the weeds further.

The presence of rhizomes (underground stems) and stolons (stems or runners that are above ground) is an indication that the plant can reproduce vegetatively. Similarly bulbs, corms (like bulbs) and tubers also indicate that the plant could reproduce using vegetative means.

Prevention

Prevention is the best and cheapest method of weed control. Land needs to be continually inspected and land managers need to be alert to new plants or weeds.

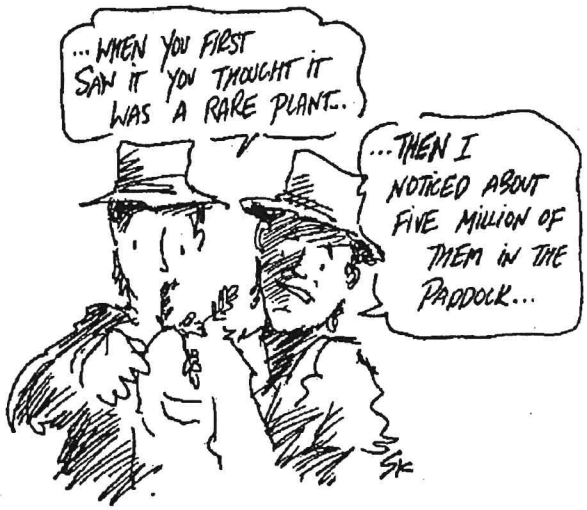
When a possible weed is found, every effort should be made to discover what it is and determine what action should be taken. If you can't identify it ask a friend, a NRE Officer or send a pressed sample for identification to the

Royal Botanic Gardens & National Herbarium, Birdwood Avenue, South Yarra, 3141. (A fee may apply.)

Assess the current and potential damage the weed is causing - is the infestation increasing? Determine the cause of the weed infestation and decide if a change in conditions will minimise the infestation. For example, a weed of wet areas could be controlled through an improved drainage system.

Estimate the costs and benefits of control and decide if it makes economic sense to control the weed. Always include your long term land use objectives in any weed management program.

Inspect your property regularly. When inspecting livestock, crops or pastures be on the lookout for new plants which could be weed species. Carry a hoe or mattock with you and be prepared to use it!



Replacement

Remember, once weed species have been removed, the gap needs to be filled with other more desirable

plant species. Plant competition is an important and effective method of weed control.

Encourage the establishment of healthy crops and pastures which will outcompete weeds. Judicious grazing, pasture improvement programs and recommended cropping practices can be used to replace and keep weeds under control.

In a bushland situation, where you are removing the weed species ensure that suitable species are encouraged or planted in their place.

Follow Up

Any weed control work or revegetation program **must** be regularly checked for reinvasion of the weeds. If weeds are sighted take immediate action to control the infestation before it gets out of hand.

When considering weed management programs, include grazing and pasture management where appropriate. Plant replacement must also be incorporated into the program.

Further Information

Refer to Agriculture Notes and other Landcare Notes, including the Pest Plant and Biological Control series. Contact the local office of the Department of Natural Resources and Environment for more detailed advice on weed management.

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