

Serious About Weeds?



This information sheet aims to aid individuals in dealing with the control of weeds (In particular, Serrated Tussock and African Lovegrass) in a pasture situation. It focuses on sporadic infestations spread by the natural elements (water, wind).

Attitude

Effectively dealing with weed problems requires dedication and a commitment to the job. You have to visualize the achievements you intend to attain. Also be aware of the consequences of non commitment and the potential of loss of control. This may affect your land values, your production and even your finances, if not by the preceding points, than possibly by legal action. Seek out information about the most effective methods of control. This may be obtained by Government departments, local councils or by your friends & neighbors. Attend field days and education programs.

After an initial attempt at controlling weeds you may be disheartened and feel that your efforts are ineffective. At times like these, share your thoughts with others, take the positive from discussions, modify your plans and allow more time and resources to deal with the problem. Obtain equipment that makes the process more comfortable, pool your resources with others, and maybe even work together with your neighbor, exchanging labor. Seek funding, join a Landcare group and activate others.

In time you will gather knowledge and be able to share your experiences with others and empower them to overcome their own obstacles. You may join reference groups, attend Council meetings or be satisfied to host field days showing your own methods and successes. Take pride in the land that we manage as custodians for future generations.

Preparations

Evaluation

Decide first on the intended land use of the area in question. This may determine how the specific weeds are to be “managed”. You may be intent on eradication or acceptant of reduction. You may combine competition pasture or even forestry as an alternative enterprise as part of the management process. Read, learn and understand the consequences of these decisions. Decide if you intend to use chemicals or use other more environmentally passive methods of control. Re-evaluation may be necessary at a later date. Be aware of your legal responsibilities relating to weed control. Prioritize with regards to weed species and risk for seed migrating/transfer.

Planning

Always allocate enough time and resources to deal with weeds. Set aside days /weeks at key times of the year. Do not put off the activity as it may require more time later and risk seed development. Observe the growth patterns of all plants that give an indication to the plant cycles of different species. Observe the identified sites in the wetter areas as they will be the first or last areas to develop seed heads. Growing seasons hardly ever reoccur at the same time each year. If you are late, and the plants have formed seed, then be prepared to harvest the seed heads and securely contain them. When destroying the seed (possibly by incineration in a confined space), ensure that the areas of disposal can be contained and monitored. Ensure secure containment is used when transporting! Be prepared for follow-up of sites especially in long growing seasons.

Mapping

The purpose of the mapping is to enable any one to find the point of infestation, and not have the reference in the mind of one individual. The scale of the map you use will depend on the intensity of the infestations. It will also be dependent upon the availability of reference points (fences, tracks etc.), that can be used to identify the relative position of sites, and/or the method of marking infestation sites. You may use a GPS as a tool for site identification?

Mapping can be drawn by hand, traced from existing maps. It may also be created on the computer using Arial photographs or images copied from the internet (Google Earth). The details that need to be documented are fence lines, watercourses, dams, buildings (yards etc), and roads/tracks. All these are than used as references to identify the relative position of infestations of various weeds. Use various colours to identify different weeds. You may place notes on the map to describe the intensity of plant numbers (“sparse” or, “50 + plants”) and you may include a date. If the infestations to be documented lie some distance from any point of reference than pegs could be used in the field as markers.

Marking in the field

The purpose of marking the presence of weeds is so that we can return to that area to monitor the effectiveness of our work. There are many forms of marking weed infestations e.g., flags, marker posts, spray markers or a combination of these. When using pegs or marking areas, use a system that is consistent. For example, always peg the “source” plant of an infested area, usually on the side from where the prevailing winds blow. This means that the spread of any potential germination will be on the leeward side of the peg. In some cases slope or even water flow (ALG) will effects the movement of infestation, as such, mark the “upper” infestation point.

Pegs may be used to mark a perimeter of an area of infestation. Use pegs that are visible from a distance and yet sturdy, so as to resist stock, be they sheep, goats or cattle. For cattle a shorter post may not attract their rubbing habits. Marker spray can be used for marking steel or wooden posts driven into the ground or to mark points on an existing fence line, tree stumps or rock outcrops. The colour used may vary to identify different weeds. Flags or marker spray can be used to mark unexpected discoveries during other farming activities like mustering. They will enable you to return to the spot at another planed time to treat the plant and place a permanent marker.

Service all equipment

Allow ample time for preparation, service of equipment and vehicles and planning – oil, water, fuel. Pumps (hand or motor driven) need to be serviced, spray units with clean filters nozzles. Keep a selection of spare parts and test equipment before heading out to the field.

In the Field

Transport

When chipping or spraying weeds, choose the most appropriate method of covering the area. You may use an ATV or an off road vehicle. You may walk to areas of infestation. Once an infestation is found, it may be most effective to cover the area on foot. It is easy to miss plants while only driving over areas. Beware of vehicle weed contamination and keep vehicles out of weed infested areas during the seed development period and wash down afterwards.

Finding the plants

Serrated tussock is an elusive plant, mingling with other species such as Poa tussock and hidden amongst fallen tree branches. It is often a lighter green colour and is sometimes easier to identify when the light is coming from behind the plant, morning or afternoon giving a brighter green colour. Let your eyes do the searching!

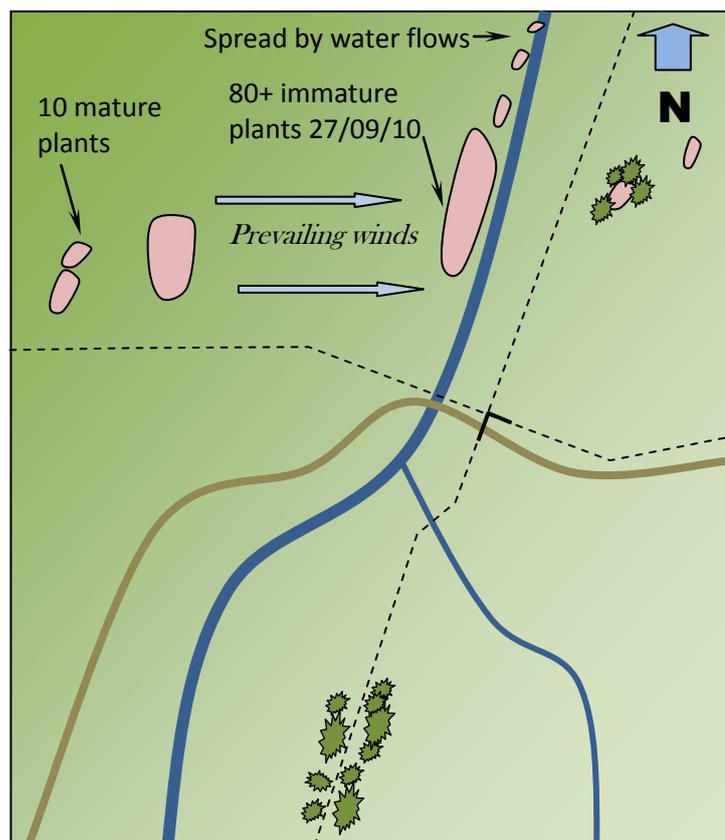
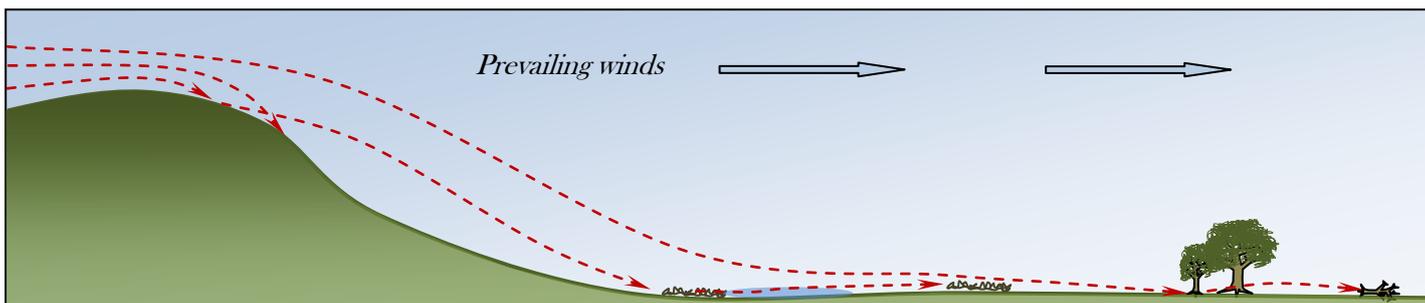
Covering the area

As it is very easy to miss plants it is important to use a systematic approach. Once you have found an infestation attempt to identify how it arrived at the site. Try to find the source using your understanding of how it spreads. From the source, estimate the direction and area to which it may have spread. For example an odd plant found on the leeward side of a ridge top may lead you to a mature plant just above you under the ridge top. It may have then spread seed to the foot of the ridge blown up against the Poa tussocks in the gully. Rain events can then have carried the seed further downstream.

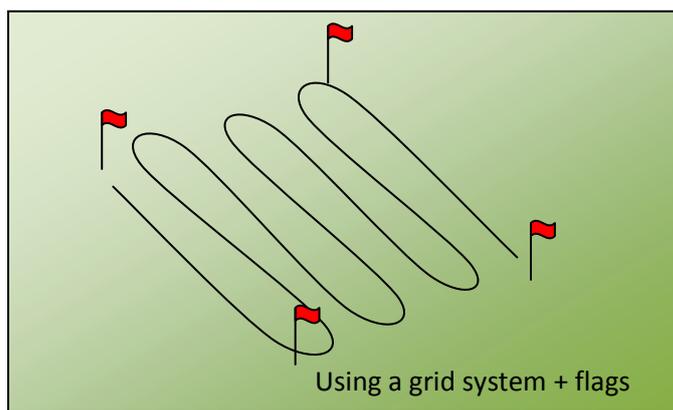
Be methodical when covering areas. Work small areas at a time using fences and roads, sheep tracks and odd vegetation as references as you move through the land. Where few reference points exist in a monotone landscape then use temporary pegs or flags to mark your progress/movement. Use a grid system and work on small areas at a time before moving to the next area. Use marker dye in the chemical mix so as to identify those plants that have not been treated. Remember to mark infested areas with pegs etc.

Understanding infestation movements

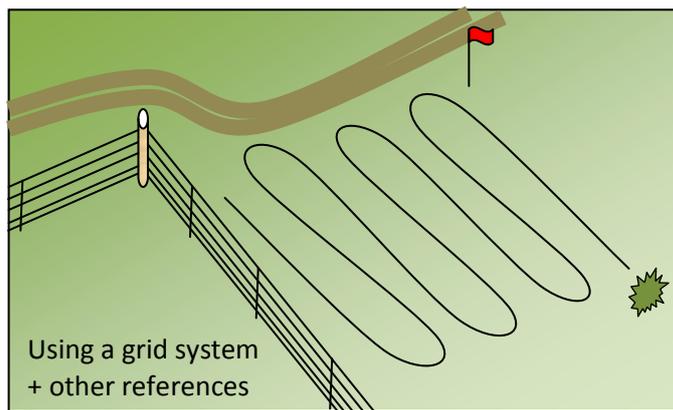
The Serrated tussock seed can be carried many kilometers in the air, usually ending its journey on the leeward side of hill tops or against obstacles in its path such as patches of Poa tussock or fallen tree branches. African Lovegrass is less affected by wind but readily moves downhill and with flows of water. Be aware that stock can transfer seed; sheep in their wool where the seed is present, sheep, cattle & horses in their diet as their digestive system is able to pass the seed through their gut. This is the most unpredictable and wide spread method of seed distribution, do not underestimate it!



Plan of the above image



Using a grid system + flags



Using a grid system + other references

Using the grid system

Keep the stock out until the treatment is complete, rotate the same stock in the same paddocks or quarantine them before moving them on to “clean” paddocks. Remember to quarantine purchased stock as well.

Of course vehicles and earthmoving equipment can also transfer weeds so have a wash down area for on farm and visiting vehicles/machines and you may even create a form for visitors/contractors to sign. This may even be in the form of a Declaration, Conditions of entry as well as information of risks for visitors. Be aware of deliveries of sand, gravel & stock fodder/grain from off farm sources as well as on farm movements, e.g. road grading. Inspect delivery sites of materials for signs of weed infestations. Do not forget to document all herbicide use as required by legislation.

Follow up

Plan to return to the original sites chipped or sprayed within a week or two to find plants that were missed previously. Be conscious of extended growing periods that may require additional treatments. You can reflect upon the methods used, the success and the improvements required. You may well be disheartened with the number of plants missed, just remember that all plants removed are reducing the potential seed bank. Of course there still exists a weed “seed bank” that will carry the potential for re-infestation. The process is a long one covering many growing seasons. Eventually you **will** see a reduction in numbers and your efforts rewarded.

Contracting

Contractors often use ATVs and this may be an initial method of approach to cover large areas with a “trained” eye. Hopefully contractors are willing to document their work, updating your maps? Quick Spray units may also be used from the tray of an off road vehicle. They then cover areas on foot using retractable spraying lines. Do not rely on the contracted work as a total solution. You have set up your own equipment to “fill in the gaps”. Ask for the company’s policy on washing down of vehicles or demand that wash down sites are used prior to start of work. Use declarations.

You may have absentee owners as neighbors who have difficulty in applying the same vigilant approach as yourself. It may be that you can offer your services to control your neighbors’ (and as such, “your”) weed problem. *(Be aware that if chemicals are to be used “off farm”, then increase insurance cover is often required to cover public liability).*

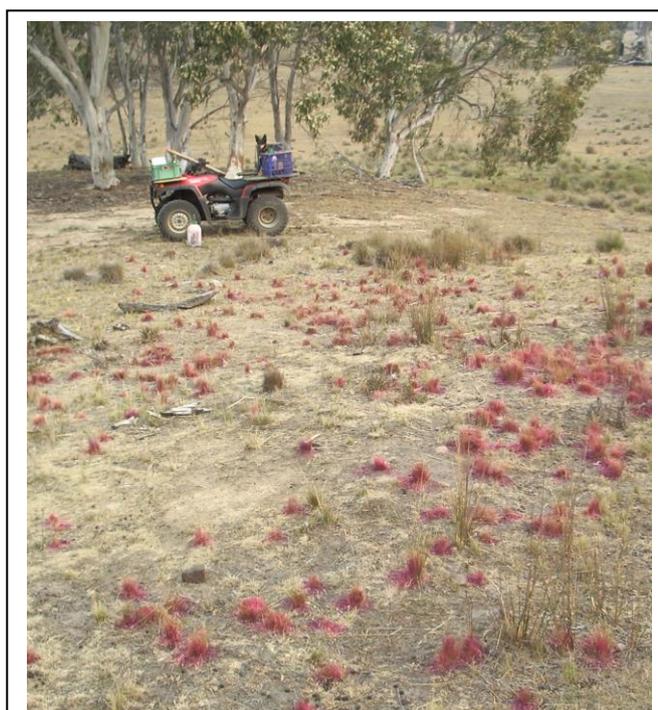
In General

During any other activity on the property, unexpected discoveries of weed can arise. Always be prepared to spray or chip the weed, bag the seed and/or mark the site for future reference. This means carrying chipping tools, small chemical spray units, plastic bags or sealable containers and/or marker spray, flags, coloured tape or pegs. Be prepared whether on a horse, a motorbike or any other form of transport.

When working near marked areas of weed infestation, check the area for re-growth and plan some action if necessary. Check the wetter areas of known infestations to find the earliest stages of development to aid the initiation process. Always update your documentation/maps etc. Varying seasonal conditions will determine the timing of the actions required. A wet winter has the potential to aid the early start for many weeds and if followed by a “real” Spring as well as a prolific Autumn, be prepared for increased germination and of course an increased workload and cost.



Pre-mixed chemicals –
labeled with type & mixture concentrations



Using dye marker to show the treated plants