



# Field Horsetail Control options

## Chemical Control

Chemical control of field horsetail infestations is most likely to be successful depending on the following factors:

- 1) The whole infestation can be treated (top, tail and sides);
- 2) the size is minimal and the root system is not deep;
- 3) the budget/effort can be applied 3-4 times per year and over a similar number of years;
- 4) the area is able to receive repeat doses of strong agrichemicals;
- 5) and most importantly, the attitude of the applier is one of persistence and determination.

## Pathway Control

Associations with river sourced products has enabled horsetail to spread directly into farms by tracking, directly into the road corridor with road building product and subsequently spread into adjacent land via natural lateral and water assisted spread. Horizons has made aware all the gravel extraction companies along the Manawatu and Rangitikei and also the major local users of product are aware that best practice dictates to either:

- 1) Use clean product in areas not containing horsetail
- 2) Use potentially 'dirty' product in areas currently containing horsetail.

Another option is to have an extensive surveillance and control component of works contracts to eliminate any new infestation establishing when river sourced product is used – as not all loads will contain horsetail propagules this may be the most pragmatic approach to preventing future infestations establishing.

Natural dispersal can not be controlled and it is this method that has produced the largest infestations occurring in the flood plain of the Rangitikei after



high water events move root fragments across large hectares of adjacent farm and unmanaged land.

Road to paddock spread is very common and Horizons urge all concerned landowners to assess their road frontage and take the appropriate action to address the situation. This can be prevention and protection and early intervention, through to forming a managed strip to keep a current infestation in check.

Be aware of river sourced product such as River run, AP products, builders mix and other products containing river silts and sands.



Another initiative that will assist with spread prevention is to ensure that all soil engaging equipment that enters property is clean. A new approach to Machinery Hygiene is being driven after the field horsetail investigation highlighted spread happens inadvertently and is easily stopped by following simple practices. **Check out this link.**

If you have horsetail in land that needs to be cultivated consider either not cultivating and trialling a chemical barrier or leaving this area to last and then clean immediately afterwards.

#### Biological Control

Horizons, in conjunction with NZ Landcare Trust and local landowners, have formed the Rangitikei Horsetail Group to manage a Sustainable Farming Fund project to import insects and/or diseases from the northern hemisphere to New Zealand to be released against field horsetail.

The outcomes sort are that in the longer term this project will provide a cost-effective and safe control method for a plant which is currently out of control. At the completion of the project we will have a better understanding of the distribution and costs of field horsetail in New Zealand. We will have documented natural enemies utilising field horsetail here and used this information to select the most promising potential biocontrol agents.



one biocontrol agent and be ready to begin mass-rearing and releases of this agent. We will also have made substantial progress with screening up to 3 additional biocontrol agents.

We are confident that at this point it will be possible to secure funds to continue the project and allow all potential agents to be released and established. Impact assessment, using a variety of methods to measure changes in field horsetail populations, will be undertaken once monitoring shows that agents are established. It is likely to take up to 5 years before agent populations will have built to the level where impact assessment is appropriate. In the longer term we expect to be able to demonstrate that the spread of field horsetail and severity of infestations have been reduced allowing land to be returned to productive use.