



case study weeds and pests



Controlling Mother of Millions



location: Yarrill/Wyaga Creek, north east of Goondiwindi
project: to contain and control mother of millions
undertaken: 1997 – ongoing

the need for action

Mother of Millions is a declared weed that was first introduced to Australia as an ornamental plant and has since spread to become a major pest. The plant is toxic to stock and, while cattle may learn to avoid it, losses can be significant. One producer in the Goondiwindi region has estimated that Mother of Millions can cost up to \$10 000 a year in lost production and stock deaths.

As the name suggests, Mother of Millions reproduces rapidly, producing millions of tiny plantlets that quickly form new colonies. As a result, the weed tends to occur most frequently along creeks and rivers where leaves and plant parts are spread by floodwaters.

In 1997 the Yarrill/Wyaga Creek sub-catchment action planning group identified Mother of Millions as a top priority and worked with the Waggamba Landcare Group and the Queensland Murray-Darling Committee Inc., applying for funding to address the issue. The group was successful in its application and so began a long-term project to control and contain the weed. Between 1997 and 2000, a total of \$438 000 was spent on the project, including \$307 000 from landholders and \$131 000 from the Australian Government's Natural Heritage Trust (NHT) program.

the trial process

When the project commenced in 1997, there was only one chemical registered for the control of Mother of Millions – AF 300. The group chose to use the available funding to pay for spray contractors and purchased the chemical themselves. A total of 730 hectares were treated in the first year, but the results were disappointing. The spray job was not as thorough as some had hoped and while the immediate effect of AF 300 was clearly evident, it had no residual effect, which meant the plants grew back in equal quantity the following year.



Funded by:





In 1999-2000 the group secured a second round of funding through the NHT program. After the limited success of the AF 300 trial, some group members had experimented with Grazon DS – a chemical commonly used for controlling woody weeds. This had yielded some positive results. A third chemical, Amicide 625, was also now available for the control of Mother of Millions and so the group decided to trial these three chemicals in conjunction with controlled burning.

Chemical prices (2000)

AF 300 - \$220 for 20L
Amicide 625 - \$110 for 20L
Grazon DS - \$635 for 20L

This time, the members of the group chose to use the funding to purchase the chemical and supplied their own labour as an 'in-kind' contribution. While this ensured a more thorough and conservative application of chemical, it was a very time consuming task.

Landholders were also encouraged to fence off areas infested with Mother of Millions to build up an adequate fuel load and allow for a controlled burn.

results

What the group found, was that a combination of burning and chemical control with Grazon DS was the most effective way to control Mother of Millions. While AF 300 and Amicide 625 were both significantly cheaper than Grazon DS, they had little residual effect. Like AF 300, the Amicide killed the plant, but seedlings re-emerged the following year. Grazon DS, however, had a much longer term effect.

As part of the 2000 trial, a seven kilometre stretch of creek line, covering 280 hectares, was treated on 'Wyaga', a grazing property east of Goondiwindi. The total cost of chemical was around \$10 000 and included 100 litres of Grazon DS, 580 litres of Amicide 625 and 100 litres of AF 300. The area controlled with Grazon DS yielded the best results due to its residual effect. In 2001, the area was 'mopped up', or spot sprayed, for Mother of Millions using Grazon DS. In that year, only 20 litres was required and by 2002, it was down to 10 litres.

On 'Wyaga', they now budget for \$5 000 a year to control and contain Mother of Millions, mainly in the creek lines. This is done using a combination of fire and Grazon DS. This year, the plan is to continue mopping up previously treated areas and to prepare a section further downstream.



Above: Spot spraying of Mother of Millions is carried out on an annual basis on 'Wyaga' using Grazon DS applied through a quick spray unit.



Five hundred acres have been temporarily fenced off to allow the fuel load to build up. This area will then be burnt to kill off as much of the Mother of Millions as possible and reduce the cost of the initial spray job. Any plants that survive will be spot sprayed using Grazon DS in subsequent years.

Spraying is usually done in winter when the plant is in flower and can be easily identified from a distance. However, if the plant is lush and growing well and is likely to absorb the chemical more readily, late autumn or early spring may be a better option. Grazon DS is applied at a rate of 500ml/100 litres of water using a 400 litre quick spray unit mounted on the back of a truck or utility. The unit has a high pressure, 80 metre hose on an automatic reel and is hired for \$20 a day through the local Landcare group.

Due to the fleshy nature of the plant, it is important to use a good wetting agent. Experience on 'Wyaga' has shown that LI700 at a rate of 250ml/100 litres of water is the best option.

considerations

While a combination of controlled burning and chemical treatment with Grazon DS has proven to be effective in controlling and containing Mother of Millions, it requires a substantial and ongoing commitment in terms of both time and money. When the group first set out to tackle the weed, they hoped to eradicate it. Over the years, they have come to realise that the best they can do is contain and control it. Given Mother of Millions' ability to spread prolifically and to be carried on floodwaters, control needs to be strategic. The best results appear to come from tackling the weed issue at the top of the catchment and then progressing down stream.

While limiting Mother of Millions has a positive impact on the biodiversity of creek-side vegetation, it should be noted that Grazon DS can kill small shrubs and trees, although this can be minimized through careful spot spraying. Similarly, while a hot fire will kill Mother of Millions and its seed store, it may also have a negative impact on other species and on local biodiversity.

other activities

While controlling Mother of Millions was the initial focus of the Yarrill/Wyaga creek sub-catchment action planning group, a range of other issues have also been addressed by the group including soil conservation, fencing creek lines and revegetation.

Thanks to Bradley Taylor, 'Wyaga', and Denise Ellis, previous Waggamba Landcare Coordinator, for their contributions to this case study.