



lippia
case study

▶▶▶ Good timing and good neighbours

Lippia management technique: spraying regime focusing on method and timing of application

Property name: 'Springlea'
Location: Greymare – 25km west of Warwick
Manager/owner: Peter and Janelle Cleary

Key Points:

- Spraying method and timing critical in successfully controlling Lippia in grazing land
- Coordinated efforts with neighbours in timing spraying
- Grazing enterprise with some fodder crops
- Primarily native pasture present on grazing land

background

The Cleary's property is wholly contained within a watershed area covering a series of connecting blocks which run from the top of a hill down to the Condamine floodplain. They graze cattle and sheep and grow some fodder crops. The property has primarily native pasture (Queensland bluegrass – *Dicanthium sericeum*) with a few small areas of introduced pasture (digit grass - *Digitaria eriantha* ssp. *Eriantha*).

Peter has observed Lippia (*Phyla canescans*) in the area for about 20 years and believes it was first carried onto his property by ducks and water birds and then spread by cattle, farm machinery and floodwaters. Lippia now grows on all the Cleary's blocks, even on the higher areas with sandy soil; Peter has even found Lippia growing in an old tree stump in higher areas. However, it is most prolific on two lower blocks with richer, clay soil.

effects of lippia

Peter observed Lippia reducing the productivity of his pastures and recognised that, without early intervention, increasing amounts of Lippia would result in reduced stocking capacity. While it has only been a problem on his property for the past five years, other landholders in the area have had land severely affected by Lippia, with stocking rates significantly reduced, for over 10 years. Peter believes that, if left unchecked, many of his pastures would now be overrun with Lippia and be virtually unproductive. Peter says, "Lippia very quickly out-competes my grasses."

control strategy

1. Spraying regime

Peter relies on herbicides to control Lippia. He has sprayed in a systematic way, working in conjunction with his neighbours focusing spraying at the top of the catchment first and then working down.

Peter boom sprays heavily infested areas of Lippia and spot sprays smaller patches using a council quick-spray unit with an 80 metre hose and automatic reel hired for \$10 per day. The main chemical Peter uses is DP 600 (Lantana 600™), although he has also tried a range of other 2, 4-D products. While Peter has had good success with DP 600 against Lippia, he has found a number of chemicals work and thinks the method and timing of application are the most crucial factors.



Above: In October 2003, Peter boom sprayed this paddock with some left over 2,4-D amine, but ran out half way through. One year later and the spray line is clearly visible – to the left was sprayed and to the right was not.



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Peter believes it is important to spray when the Lippia first starts growing after spring and summer rains. He explains, "The chemical is most effective when Lippia is actively growing, but also it is very hard to see small patches of Lippia when there is a tall stand of grass. So you need to get onto it [the Lippia] before the grass grows too tall."

"Lippia grows so quickly that if you miss a small patch one year, the next year it is four times the size."

Another suggestion Peter makes in regard to herbicide timing is the need to wait until clovers and legumes have dropped seed before spraying; otherwise these species, which are valuable for grazing, could be killed off.

Peter believes it is very important to really saturate the Lippia when spraying. Consequently he uses a high water/chemical ratio (1000 L water to a 20L drum of herbicide) and a wetting agent, and sprays very slowly. "When I boom spray, I put the tractor in low gear to really allow the spray to penetrate down. When I spray by hand I move very slowly. They're always long days!"

the outcome

After four years of spraying, Peter has largely eradicated Lippia on his upper blocks, but will try to completely rid these areas before focusing seriously on the lower areas. During this time he has also been spraying in the lower paddocks to prevent Lippia becoming too strongly established. "I've been spraying Lippia since 2000 and reckon it'll take me another four years to completely rid my land of it. There are no shortcuts in controlling Lippia," says Peter.



Above: Ground cover on the unsprayed side of the above paddock one year after spraying. Lippia dominates; there is very little grass and no clover.



Above: Ground cover on the sprayed side of the above paddock one year after spraying. There is good grass cover and a very strong population of clover. There is very little Lippia.

the future

By keeping a close eye on his pastures and spraying Lippia patches when he sees them Peter has been slowly reducing the Lippia on his property. With his systematic approach of focusing on the top of the catchment first and then working down Peter hopes to eventually rid his property of Lippia altogether. This will not be an easy process and will require persistence, but Peter certainly believes the effort is worth it.