
Case studies— property management approaches

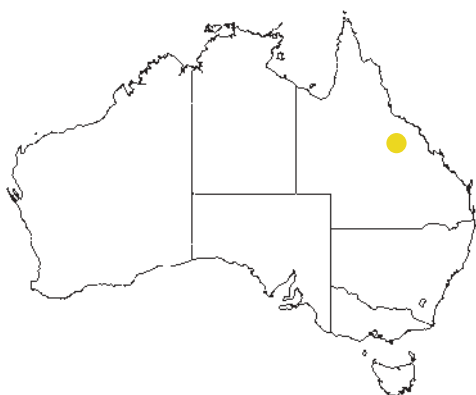


Section 4

Case studies—property management approaches

Integrating proven and innovative techniques

Michele Deveze with John and Ronda Lyons



Background

John and Ronda Lyons of Wambiana, near Charters Towers, are the third generation to have worked and developed the property on the eastern highlands in north Queensland since John's grandfather bought the property in 1912. John sees the family as 'long-term residents' wishing to be 'good custodians'.

Wambiana lies within the Campaspe River catchment which feeds runoff into the Burdekin River, the major watercourse of the area. It is open savannah poplar gum and carbeen grassland interspersed with brigalow and gidgee scrub. These grow on undulating to flat country, river channels and floodplains, comprising alluvial, cracking clay and duplex yellow earth soils. The property carries about 3000 head of Brahman cattle on its 22 300 ha. John and Ronda also conduct an educational tourism enterprise offering 'outback experience' to school children.

'What we failed to recognise was that the parkinsonia was laying the foundation for an explosion'

The parkinsonia threat

John remembers parkinsonia being on Wambiana for the past 50 years but until 10 to 15 years ago there was only a scattering of plants.

'What we failed to recognise was that the parkinsonia was laying the foundation for an explosion—we thought it was just a couple more plants coming.'

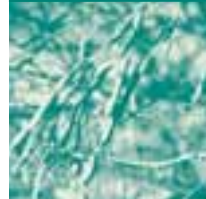
Within about three years, the infestation went from a fairly scattered to a dense stand of parkinsonia, and it continued spreading along watercourses at an alarming rate. Unfortunately, its spread coincided with the drought. The country was bare and brown, yet the parkinsonia thrived. Friends and neighbours made the same observations—they could see that parkinsonia was quickly overtaking rubber vine as their 'number one woody weed problem'.

As the parkinsonia spread, it shaded out the grass on the best soils, reducing grazing capacity. Finally, the Lyons realised they had a problem which threatened their base resources—the soil and grass production.

Experience with control methods

Herbicide treatment

The first control method used against parkinsonia was Graslan.



‘We had a good result. We used to be able to buy a container that would measure the appropriate dose of Graslan, we’d throw it on top of the canopy so that it came down in the area of dripline.’

Three men went on horseback—which meant that all types of terrain could be covered—followed by one on a four-wheel motorbike with a supply of Graslan. John remembers that it was fairly costly in labour but the results were very good.

Grazing management

Their next move was less successful.

‘In our innocence, we locked up the paddocks with parky to spell them and all the seedlings got away—what a mess! What we didn’t know then was that cattle readily eat parkinsonia seedlings and young trees, thus ending their life cycle.’

With hindsight, John considers that simply spelling from grazing at the end of the dry period lets grass recover but unfortunately also allows the parkinsonia seeds to germinate and flourish unchecked.

The Lyons then employed a contractor to spray the parkinsonia. There was a good kill but seedlings came up afterwards. Realising their earlier mistake, they put cattle in, and observed how cattle can kill seedlings off.

According to John, ‘As the drought continued, cattle would eat leaves off waist high or smaller plants eating whole stems up to finger diameter. They ate all the leaves off and started eating down the stem’. The damage was sufficient to kill many of the plants.

Mechanical control

Despite some success in control, John and Ronda were very concerned that the parkinsonia was growing on their best soils, and they were still struggling to find a practical way to manage the problem.

‘Make a start—even if you start at the wrong end, this will begin the learning process’

Next, they bought a brush-cutter with a circular saw blade attached. Though John had seen a demonstration of a brush-cutter that also administered herbicide, he preferred to pay two men, one using the brush-cutter and another with a knapsack putting poison on the stumps.

As John says: ‘Whatever you do has to be successful. The dearest thing is getting the herbicide and the men to the plant. Once we had that, we weren’t going to let the plants survive!’

They used Access at 1:60 most of the time with very good results. However, they still had seedlings coming through, unlike their experience with Graslan which also killed seedlings as they germinated.

Experience with camels

Until this point, they had only been working on scattered patches and had avoided tackling the worst patch, which was about one kilometre by half a kilometre and quite dense—‘you could pick your way through it but you couldn’t ride a horse through it with ease...some places you couldn’t ride through at all’. They still felt they were ‘getting nowhere’ with their parkinsonia problem.





▲ John and Ronda Lyons are pleased with the impact of camels on parkinsonia on their property

Hearing that camels would eat ‘anything with a spike on it’ and that parkinsonia was their preferred diet, the Lyons decided to sell \$25 000 worth of breeders and invest it into camels and produce camels instead of cattle as there was a good market for camels.

‘The camels cost about \$450 each in October 1999, and a Brahman cow sold for around the same price. Both produce progeny but cattle don’t have the capacity to do what camels can in terms of weed control.’

Camels are a little slower than cattle to breed, with a gestation period of 15 months (compared to the cow’s nine months). Camels have a lifespan of about 50 years, will have their first calf at about three or four years, and will keep breeding up to about 35 years.

John finds that working with camels is a little different to working with cattle. Although they are herd animals with a herd mentality, they nevertheless have ‘minds of their own’ and require more patience and a little more psychology when handling them—‘they are a smart animal, they’ll test you, but we’ve had minimum trouble with them’.

The feeding habits of camels are very damaging to parkinsonia. They pull the branches down, breaking and weakening

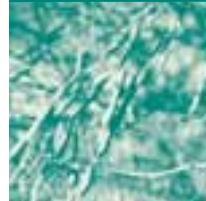
them, and making them more susceptible to biocontrol insects like borers. Since they also keep it defoliated, there is very little flowering or seeding. If they do seed, ‘very few of the seedlings see the light of day as they are a delicacy to camels’.

Research by scientists from the Tropical Weeds Research Centre on parkinsonia seed spread by camels has demonstrated that only 8 per cent of seed passed through camels in a viable state. In any case, the risk of spread is considered minor because camel browsing prevents pod production in the first place. John Lyons also believes there is considerable anecdotal evidence that very little seed germinates after it goes through a camel—‘there is evidence that the seed is damaged as it passes through the camel’s rumen’.

John considers that getting the camels was the best thing that they have done in their battle with parkinsonia.

‘Not only do they pay for themselves by saving wages and herbicide, but they work night and day for you.’

However, the Lyons feel that they do not yet have enough camels. Currently (2004), they have 70 cows and 23 calves (running 40 cows to one bull and 30 cows with a young bull) and hope to build up the herd to 200. They have observed that the camels work as a herd, all attacking a tree or group of trees together, and they want to maintain a high density of camels to encourage this activity. When they have 200, they’ll run 50 in a mob over four paddocks.



John wants to have enough camels for each paddock where parkinsonia is a problem to 'keep the parky leafless, flowerless and seedless'. At present, he has to keep rotating the camels through paddocks: 'we're not getting on top of it because it's too long in between moves'. Some rotation may still be needed with 200 camels, but managing the process will be much easier.

The Lyons are very satisfied with the camel experiment, saying that friends and neighbours also agree that the camels are doing an excellent job. However, he advises caution in selecting stock for purchase. He paid \$450 each for quiet camels in 1999, although feral camels could have been bought for \$180 each. He is aware that many people have had trouble in handling feral camels.

John plans to keep the camels indefinitely, partly to cover initial costs. Nevertheless, he doesn't depend solely on the camels for parkinsonia control. He still uses herbicide when he wants instant results, such as cleaning up his best buffel grass paddocks that are used for fattening bullocks.

Fire and mechanical control

The Lyons have also tried burning the parkinsonia with fire, saying that 'a moist fire after rain, when the grass is green—a steamy slow cool fire—will give an amazingly good kill. And good grass came back afterwards as well'.

'A hot fire definitely didn't have the same results. A hot fire when the grass is dry is also more expensive because you need breaks and people and equipment. Fire after rain with a lot of green grass is so much cheaper.'

On another occasion, John used a bulldozer to push most of the parkinsonia into a pile, sprayed the regrowth plants, and then let the cattle in when the seeds germinated. He felt that this was not very successful: it was expensive and didn't get rid of the weed, though it did reduce the parkinsonia in size, which made it easier to spray next time.

Long-term approach

With parkinsonia both upstream and downstream from Wambiana, the Lyons' local catchment group has been a source of healthy peer pressure—'no one wants to get left behind'.

'At meetings landholders discuss what's not working and what does—people can adopt better methods instantly without having to go through all the experimentation. The group is a great energiser.'

At times, the Lyons have been able to use government programs to tackle their parkinsonia problem. For John, the big advantage with programs that provide labour is not only that it gives unemployed people a chance of work. It also enables the Lyons to undertake weed control at the most effective time rather than simply when they can fit it in. It's the critical difference between an organised program and a 'hit and miss' approach.

'Our catchment group is a great energiser—no-one wants to be left behind'





Key learnings

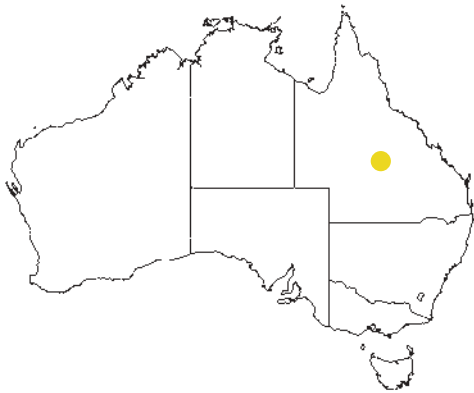
John feels the important lessons he has learned from his battle with parkinsonia are:

1. Make a start—even if you start at the wrong end this will begin the learning process. Do something to get on top of parkinsonia before it gets on top of you.
2. Don't destock in an attempt to beat parkinsonia, and don't spell country for too long—get the cattle back in before the parkinsonia seedlings are knee high.
3. Herbicide control has limitations including the relative cost and the need to commit labour to that job when it may be required elsewhere.
4. Ad hoc herbicide application is not effective—without continuity you don't get the full benefit of your investment.
5. Effective management of parkinsonia requires a combination of all treatments—camels, chemical, mechanical, fire, biological.



Using mechanical means to control parkinsonia

Michele Deveze with Ann and David Hay



Background

Ann and David Hay have two properties near Aramac in the Mitchell grass country of western Queensland. Myross is about 11 000 ha and carries around 700 cattle breeders. It's half black soil–Mitchell grass downs and half buffel–spinifex country.

The parkinsonia threat

The main parkinsonia infestation was a patch of about 32 ha that was so thick that it created problems for mustering. An initial attempt to use basal spraying had to be abandoned—'it was so thick it was physically impossible to work in'.



▲ Stick raking

Experience with control

Mechanical and biocontrol

Ann and David decided to try mechanical control, using a bulldozer.

'We put the dozer into the parky—it was October 2002, and very dry. We have found with past experience with dozer work that we get better results when it's dry. No soil moisture means the plants don't shoot straight away, and many die because they are so stressed and knocked around by the dozer. With basal spraying it's the opposite—you need the moisture.'

The Hays used a D6 with a 6-metre stick rake with a 3-metre cutter bar on the back to use on thick patches of smaller plants, but comment that the size of machine will depend on the kind of country. On the whole they are pleased with the result.

'Grass returned after the parkinsonia was removed'

◀ Mechanically clearing the parkinsonia created easy access for follow-up control



‘It’s worked pretty well, though at the time we didn’t know if it was the right thing to do. We managed to pop a fair number of the roots out. But parky doesn’t seem to like being broken off either—if it’s broken and splintered it seems to die. So far it looks pretty good—we haven’t had much rain since, although we had four inches four months later.’

They were worried that a huge number of seedlings would come up after the rain—‘parky’s got a really big seed bank and it could come back worse than ever’. It has not become as thick as they thought it might, though there has been some regeneration and shooting from broken stumps, and some parkinsonia left among the gum trees in the cattle camps.

The *Pentobruchus* beetle has also been present on the parkinsonia and the Hays feel it may have helped: ‘If you open a seed pod most of the seed has holes in it, so maybe the majority won’t come up’.

The importance of continuity

The Hays have also done three days of follow-up spraying, using three 44-gallon drums of Access and diesel. They emphasise the importance of follow-up control.

‘You can’t just think that the dozer will do it and that will be it—you must follow it up or it’ll be a big mess again’



Michele Deveze

▲ Ann Hay inspecting parkinsonia on Myross

‘You can’t just think that the dozer will do it and that will be it—you must follow it up or it’ll be a big mess again. The dozer cost \$2000 (20 hours at \$100 per hour) so we’re not going to spend that sort of money to make a mess of it and have it come back, and maybe even worse.’

Reviewing their approach

Ann feels that if they hadn’t been able to get into the parkinsonia with machinery first they mightn’t have been able to finish the job, or at least would not have done as much.

‘Physically and financially it would have been impossible to spray or basal it, and the good thing was that when we did the follow-up we didn’t have to bend our backs.’

They were also pleased that grass returned after the parkinsonia was removed—‘under big parky all the goodness is sucked out of the ground’.





Michelle Deweze

▲ Working progressively through the parkinsonia

Cost-effectiveness issues

The Hays are happy with their decisions on control methods.

‘We could work out how much it cost per acre but we don’t usually worry about that—you either do the job or you don’t. You can nearly see by eye if you’re getting value for money. If you get a good operator you’ll get good value for money.

‘Just speaking financially: Access costs about \$600 per 10-litre drum and the dozing cost about \$2000. So that’s only three or four drums of Access, and that doesn’t include the diesel (600 L per 10 L of Access). Spraying this patch would take a lot more than three or four drums of Access, plus the labour it would require.’

‘It only took a couple of days with the dozer, and three people doing follow-up, and now we’ve pretty well got it all knocked over.’

They are also using camels for woody weed control. The camels have better access with the big parkinsonia trees gone so now they can eat any seedlings that come up.

Long-term approach

Ann and David are determined to get rid of parkinsonia on their properties, saying it’s hard to understand when people have a small infestation and don’t do anything about it. They are resigned to parkinsonia control being a long-term project but feel they are ahead of it now.

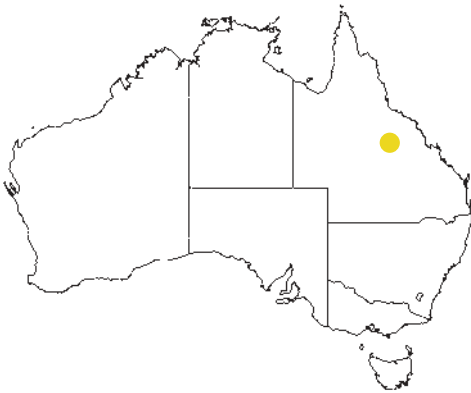
‘But we will never be able to ignore it. With rain, the amount of seed that washes in from upstream sources means that there’s always seedlings coming up here.’

‘If we hadn’t been able to get into the parkinsonia with machinery first, we may not have got the job done or at least not as much done’



Gaining ground on parkinsonia

Michele Deveze with Kate and Lock Harrington



Background

Ashton and Curragilla are adjoining properties situated 50 km south of Prairie in north Queensland. The properties are managed as one. In all there are 44 500 ha with a stock route running through it. The country is mixed—black soil with sand ridges, gidgee scrub on the east, and spinifex to the west.

Most of the parkinsonia on the properties is on the stock route, along Tower Hill Creek and tributaries. The Harringtons don't consider it a big infestation, saying it has no impact on their property stocking rates. However, they want to keep their country clean, and have been attempting to control it for some years.

'Certainly, the funding has kick-started a lot of people'



Michele Deveze

▲ A mix of Access and diesel has killed parkinsonia without affecting surrounding vegetation

Experience with control

Contract spraying with Access

Their first large-scale attempt at control was undertaken in 2003. Encouraged by the WONS funding, they hired contractors to spray the parkinsonia along the creek, using Access and diesel. Between 7 and 10 men spent 31/2 days on the job.

'In the long run the contractors did a lot more than we could have managed at the time'

The Harringtons have somewhat mixed feelings about the result. They were pleased with what was done but aware they will need to go back for the seedlings on a yearly basis.





Michelle Deveze

▲ Graslan was applied to this area with good results

In their experience, one of the problems involved with using contractors is that the contractor may know what he is doing but the workmen are usually inexperienced. Consequently, they missed both rubber vine and parthenium, though they had been asked to watch for these weeds whilst spraying the parkinsonia. However, in the long run the Harringtons felt the contractors did a lot more than they could have managed at the time, as they were hand feeding and carting water.

They also thought the guaranteed 80 per cent kill was difficult to assess, but acknowledged that back-up spraying would be necessary in any case, because of the longevity of the seed in the ground. Yearly spraying is now part of their ongoing property management.

Ongoing spraying

While the Harringtons have used Access and diesel, they have also found Graslan to be a good tool for continuing, small-scale control undertaken along with normal station work routines.

Given the availability of a second round of funding, they plan to continue the spraying on a more informal basis, rather than using the contractors again. Spray packs can be borrowed from the local Landcare group.

Value of the funding

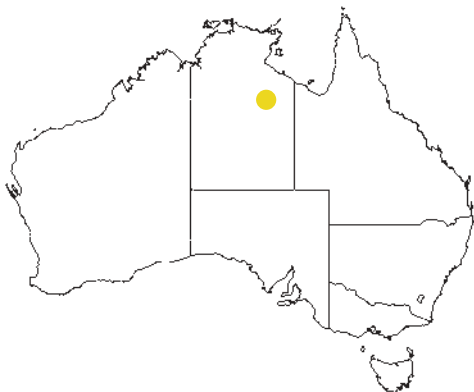
The Harringtons acknowledge that while the WONS funding is only a fraction of the actual cost of control spraying, it has been a big help and a 'kick start' for a lot of people for parkinsonia control. Since a lot of follow-up will be needed to control seedlings, they hope the funding will continue into future years.

'We'll be at it for years—it's just part of property management'



From pretty to pest

Ed Conway with Louise Martin



Background

In 1928 George Darcy (Senior) took up a small garden lease in the Gulf district of the Northern Territory, and over many years Mallapunyah was extended to a pastoral lease of 434 900 ha. The lease is a mix of reasonably heavily timbered areas with a grassland understorey and spinifex-covered hill country giving way to well grassed black soil plains. The lease is owned and managed by the Darcy family with the assistance of station labour.

The parkinsonia threat

It is known that parkinsonia was taken to the head of the Kilgour River and the McArthur River catchment in 1930 and planted on Mallapunyah Station. There is a strong possibility that the plant was obtained from the Borroloola Police Station, as a photo taken pre-1930 shows a mature parkinsonia plant growing in front of the station.

As a small child Bob Darcy remembers being asked to water the parkinsonia tree planted

at the homestead. Now, over 60 years later, the family spends their time trying to control this weed.

Bob Darcy's partner, Louise Martin, explained that Baraba Paddock (along the watercourses where the McArthur River heads) has been the worst affected.

'However, it has now appeared over most of the station, mostly as scattered or isolated specimens. The thicker areas are up gullies in Baraba Paddock. Some have seemed to die naturally this year though there are still new plants coming through.'

Experience with control

Louise comments that it is impossible to put a monetary figure on control measures. Before the last ten years, the parkinsonia had been treated solely by mechanical means—'grubbed out with an axe or pulled out using a chain on a Toyota'.

However, over the last ten years at least \$18 000 has been spent on Graslan and other control measures. While these measures have been effective, they are aware that they won't ever get rid of every plant.

'Without some biological control like a beetle or grub it cannot be eradicated, as some bushes are never seen except while riding past during mustering.'

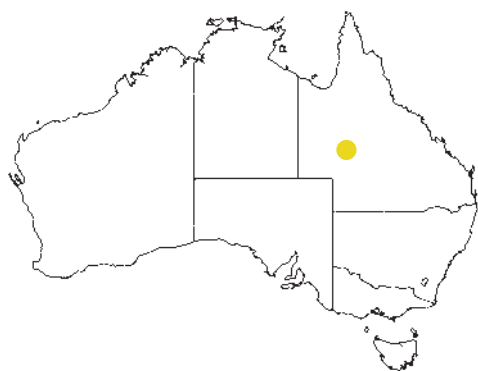
'Without some biological control like a beetle or grub it cannot be eradicated, as some bushes are never seen except while riding past during mustering'





Using mechanical control to advantage

Michele Deveze and Peter Klem with John and Philippa Whitehead



Background

Mentone, which belongs to the Whitehead family, is about 24 km east of Corfield township in central western Queensland. Sandy and Sach Whitehead with their son John and daughter-in-law Philippa run it as a family cattle breeding and fattening partnership. It is mostly undulating vine scrub and whitewood, with black soil downs and corkwood wattle and coolibah along the creeks.



Entriken family

▲ A historical photo of the Sesbania homestead with parkinsonia planted around it

The parkinsonia threat

Parkinsonia has been on Mentone for a long time, having been in the area since the turn of the century. In fact, historical photos show parkinsonia planted along the driveway of the old Sesbania homestead. The weed grows mainly along creek lines, dam banks and dam backwaters. On Mentone it is thick only in a couple of places in IO Creek.

The Whiteheads had noticed that the parkinsonia was dying off, possibly because of the prolonged drought. While in their observation parkinsonia seems to have a short life span, John maintains that it always seems to come back thicker after wet spells or after a decent wet season.

According to John, 'They don't seem to have a very long life span but five seem to come back to take the place of one dead tree'.

Sandy Whitehead has been running Mentone since 1940 and doesn't see parkinsonia as a great problem. To him, its main impact on Mentone is that it restricts movement for mustering, burr spraying and fencing, yet comments: 'cattle do eat parkinsonia so it does provide a source of fodder'.

The direct benefits of the control on Mentone have been that creek lines are more accessible and mustering is easier



Experience with control

Basal bark spraying (Access and diesel)

Because funding made treating parkinsonia achievable, John and Philippa started control early in April 2002, and they are keen to try to eradicate parkinsonia while it is still at a controllable level. Trees at all stages of growth were basal bark sprayed using Access and diesel at the rate of 60 L of diesel to 1 L of Access. It was fairly hot when the work was done but it meant that the trees were treated when they were taking in moisture and actively growing.

They used three people to basal bark creek lines, one person with hand-operated backpack sprayers on each side of the creek. The third drove the vehicle and with a hand-held spray bottle did outlying trees away from the creek, working on small areas in between shifting the vehicle.

John explained that trees were sprayed to about half a metre up the trunk and great pains were taken to make sure that the trunk was sprayed all the way around.

'We made sure that trees with rough bark were wet to the point of the herbicide running down the bark into the ground.'

As far as he is concerned there is no reason to use a dye in the herbicide because 'a basal barked tree is obvious even on the next day'. The Whiteheads found that smooth-barked or smaller trees proved easier to kill. The large rougher barked trees required a lot of herbicide mixture and took a long time to do, and they did not have a good kill rate with them.

'Now we are on top of a problem that had nearly got us beaten and we are getting rid of a noxious pest'

Mechanical control

The Whiteheads have also tried mechanical control methods for parkinsonia. A loader was purchased, mainly to clean out silt tanks and de-silt dams when they are dry. However, with the treatment of prickly trees as a secondary function for the loader, they feel it is a useful machine to have.

For John, the advantage of using the loader is that only one person is required to make it work efficiently whereas a few people are needed in basal bark spraying. It is also much easier to control larger trees with a machine than by using herbicides, which then allows people to walk through and basal bark smaller trees that cannot be tackled with the loader. Overall, this approach involves using a lot less Access.

In areas of thick infestations and bigger trees, a much better kill rate is expected than if they had used herbicide. Where there were massive numbers of smaller trees they were sheared off at ground level.

'We are expecting a massive regrowth problem but it will be accessible for overall spraying', said John.

'But re-growth doesn't seem to be a problem on Mentone—just a dribble of herbicide on a tree will run right around the stem and kill it easily.'





John uses a 115 hp Hitachi LX100 with a 1.8 metre bucket, and finds that parkinsonia trees are easy to push and lift out. His method of treating individual trees is to have the bucket about 30 centimetres (or 12 inches) off the ground, push the tree, lift it with hydraulics until all the roots are out, and dump it away from the loose soil and the hole. One can then 'back off to approach the next tree'. On Mentone they think that basal bark spraying has achieved a 90 per cent kill, and mechanical treatment where everything is properly dug out has achieved about 100 per cent.

John considers that with a machine he can do much more parkinsonia control in a given time, making eradication more achievable. And controlling prickly trees with a loader is 'almost like a day off, with the radio and air conditioner on high'!

The benefits

John feels that they have the prickly trees under control and they are 'mentally on top' of the problem. The direct benefits of the control on Mentone have been that creek lines are more accessible and mustering is easier. He also comments on how much the funding helped in stirring them to action.

'It made us think about taking it on. Now we feel happier—we are on top of a problem that had nearly got us beaten and we are getting rid of a noxious pest.'

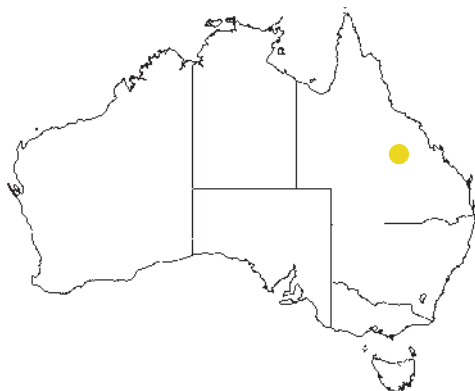
They are keen to try to eradicate parkinsonia while it is still at a controllable level





Clearing the way for mustering on Swanlea

Michele Deveze and Louise Moloney with Bob and Lesley Marshall



Background

The 10 900 ha property belonging to Bob and Lesley Marshall, Swanlea, is located north of Aramac in the Desert Uplands of central west Queensland and has been owned by Bob and Lesley Marshall for 30 years. Until 1973 it was grazed by sheep, but in that year cattle became the sole enterprise.

Following the treatment of all plants, their activity has been purely a maintenance program

The parkinsonia threat

Before 1974, Swanlea had only a few isolated parkinsonia trees. In that year, one of the few times that Lake Galilee actually joined completely across, the prevailing winds brought the floating parkinsonia seed pods across from adjoining stations.

By 1976 parkinsonia was everywhere. The country most affected was the gidgee country improved with buffel grass. The whole area was covered with scattered plants but the weed was heaviest in the drainage systems. There were also heavy infestations on the lake frontage, especially on the shoreline.

According to Bob, by 1991 mustering cattle was a problem as visibility was poor and cattle were using the parkinsonia to their advantage. Cattle were even hard to hold on water after being blocked up. In that year, the Marshalls 'bit the bullet' and decided to tackle it.

Experience with control

Basal bark spraying over several years

The Marshalls started with basal bark spraying, focusing on the areas around the dams. The next year, 1992, they did about six weeks spraying in the growing season, January to March, using Swissmex® knapsacks. Focusing on the drainage areas, they carried out basal barking on seedlings. They also used cut stump control on bigger plants and dragged them away in order to clear the regrowth. Where it was really thick they used long-handled secateurs and cut stump control in order to be sure of addressing all plants.

The following year, 1993, was a complete drought, with insufficient rain to graze the pulled country or the lake. The parkinsonia plants didn't even flower. As a result of the dry conditions the basal bark spraying was ineffective.





In 1994 they spent about five weeks using basal bark spraying and re-treating the areas they had done as seedlings. They also expanded into other areas. They achieved only about 70 per cent kill and had to re-treat some of it. By this time cattle had started using parkinsonia at the podding stage as a fodder resource and the gidgee country was showing lots of scattered plants.

In 1995 they used a bike and controlled all the scattered plants, and re-treated the drainage areas. About three weeks was spent in 1996 to kill all known remaining plants in the area. By this time Access had been registered for the control of parkinsonia. The Marshalls found this 100 per cent effective. As well, it could be used at any time of the year.

'Cattle mustering is back to how it should be, and ringers and horses have no blood and cuts from thorns'

Continuing maintenance

Following the treatment of all plants, their activity has been purely a maintenance program. Currently, it takes about a week for one person to check all areas, and each year their control program uses about 2 L of Access.

'While mustering we may see odd plants in the buffel country, and we will go back later and treat them. In the heavy seedbed areas we had noticed a lot of black cockatoos feeding there in season, and as a result the seedling problem has not been as great as I was expecting', said Bob.

The benefits

According to Bob, 'Cattle mustering is back to how it should be, and ringers and horses have no blood and cuts from thorns. It's a fair bit of effort and sweat, with the cost of herbicide and diesel quite high, but a well worthwhile project. I don't know why we left it so long before starting.'

'I don't know why we left it so long before starting'



