Controlling Madeira vine by hand

Controlling Madeira vine by hand is difficult, but rewarding. Getting the best out of your efforts requires some knowledge of how Madeira vine functions and what to do / what not to do. This fact sheet is aimed at giving you a better picture of how to go about getting the best results. If you already tackle your Madeira vine by hand, most of the information won’t be anything new to you.

The weed
Madeira vine is a formidable foe. It is fast growing, has an amazing vegetative reproduction system (aerial tubers) and can develop massive underground tuberous roots.

Luckily, there is no evidence that the plant produces viable seeds. Some plants in specific locations are thought to have produced seeds, but the incidence is very rare.

The aerial tubers are little packets of energy and life, just waiting to get the opportunity to sprout, take root and grow. These tubers can survive for very long periods of time in suspended animation, before they get the right conditions to shoot. This means that any control effort will have to extend over many years to ensure that all the tubers are removed.

Hand control approach
The general approach for tackling weeds is to start with the least weedy area and work back towards the most weedy. This is a basic principle of bush regeneration. But sometimes – especially with canopy killer vines like Madeira vine – you’ll need to protect mature trees by freeing them up from strangulation. Also, human nature kicks in and we tend to want to do everything at once, and so pick the biggest area of weeds first.

Large established plants
Tackling large established Madeira vine infestations by hand removal isn’t the recommended approach. These vines tend to have large underground tubers which are difficult to remove without causing a lot of soil disturbance and leaving pieces of the mother-tuber and roots deep in the ground to regrow later.

The recommended approach for dealing with these established vines is to use one of the minimal-application herbicide techniques – such as scrape and paint or cut and dip. Details on these techniques can be found on a similar fact sheets called “Using Glyphosate to Kill Madeira Vine” and “Using Starane to Kill Madeira Vine” (available from Moreton Bay Regional Council).

If you cannot use herbicides, then you must be prepared to invest a lot of your time into the careful excavation and removal of these large underground tubers and roots. You’ll then need to spend time and money rehabilitating the resulting soil disturbance.

You have 2 options for the vines growing up into the trees. You can leave them alone. This is recommended if you have used a herbicide on the stems. It is also recommended if you don’t have a lot of immediate time to collect all the tubers that scatter around as you pull the vines down.
Or you can pull the vines down as best you can. This will instantly remove a percentage of the tubers, but a lot will fall to the ground. A good idea – if you can – is to lay out a big tarp or plastic sheeting underneath to catch as many tubers as you can. Also, as the vine is pulled down, it can be piled onto the tarp/plastic sheet.

After this effort, if you’ve still got energy and enthusiasm, you can walk around and pick up as many fallen tubers as possible.

The best way to dispose of the vines, leaves and tubers is to bag or bundle them up and take them to the tip. Don’t put them in the green waste area, as you’ll only be giving the tubers a chance to spread to other people’s properties. Be responsible and dump them at the waste disposal part of the tip.

Another technique is to solarise the material by wrapping it in plastic and leaving it in the sun to heat up. The temperature must get to about 55°C if it is to work. Also, because of the fleshy nature of the tubers, it will need to be left to solarise for a longer period of time than for normal weeds (longer again in winter).

Another technique is to toss the whole lot into a large water container – say an old tank. Madeira tubers rot after being in water for over 30 days. The resulting Madeira ‘soup’ can then be used as liquid fertiliser. But if you’ve got a lot of material, you’ll need a big container. This system works well if you’re disposing of the tubers only.

Smaller plants and sprouting tubers
This is where hand removal is most effective.

Smaller vines tend to have smaller tubers with smaller root systems. This means that they are easier to dig and remove without significant soil disturbance. They also tend not to have too many developed aerial tubers, so pulling them won’t result in it raining tubers everywhere.

There are 2 systems you can use to remove sprouting tubers, depending on your time availability and dedication.

Firstly, you can systematically scour the area removing every single tuber that you can find. This will result in a massive reduction in tuber densities, but will take a long time to get through a small area.

Alternatively, you can remove them as they sprout and begin to grow. Generally, all the tubers won’t sprout at once, so you can do a regular and quick sweep through an area, collecting the tubers that are visible because they have sprouted. This system will obviously cover more ground, but will require more frequent sweeps through the area.

Collect them into strong bags – like fertiliser or feed bags – or into plastic buckets/bins. Dispose of them at the tip (not the green waste disposal), into your wheelie bin or by using the solarisation/soaking methods mentioned above.

Realities of hand removal
The major success criteria with hand removal of any weeds are that you have to be able to commit a lot of time and commit it fairly frequently. If you can’t meet either one of these, then you should think carefully about what it is you want to achieve and how you need to go about it.
A lack of available time can only be remedied by making the time, by buying someone else’s time (ie a contractor) or by ‘cheating’ and using a herbicide to speed up the control process.

The reality is, don’t commit to doing Madeira vine control by hand if you can’t commit to the time (or money) required.

The other reality is that if your Madeira vine is growing along a creek that floods, it’s highly likely that the tubers on the ground will be covered over by layers of soil and silt.

This means that the small sprout you see could come from a tuber 5cm or more underground. Pulling at one of these sprouts will just snap the stem and leave the tuber behind. So if the tuber is buried, you’ll need to carefully dig down, following the stem til you find the tuber. Then you’ll need to dig around and lift the tuber out.

**Follow up**

There is only one golden rule to Madeira vine control. And that’s to do the follow up. That may involve tracing back the stems that you’ve missed and the continual collection of ground tubers.

Start on the sprouting tubers in areas that receive high levels of light. They will grow the quickest. Tubers that sprout in darker conditions tend to stay in a state of suspended animation until there’s a break in the canopy and the light level increases. These tubers in the dark can wait until you have more time.

The best thing about Madeira vine is that they don’t produce viable seed. So if you get rid of all the tubers through persistence, you can eradicate the weed from your property.

Another good thing is that the tubers don’t float very well and tend to die if left in water for longer than 30 days. So to be spread down a creek, they need a big flood event and they need to be washed away from the creek through the force of the water. Most tubers don’t move that far from their mother plants and a percentage die in the water.

The spread mechanism for Madeira vine isn’t too well understood. They are spread by flood events and they are spread by irresponsible people dumping garden rubbish. There is some suspicion that they are also spread by nesting birds using the vines to build their nests (such as crows).