

How To Use a WEED WRENCH



Weed Wrench is easily used by placing the jaws around a woody stem. Pushing the handle forward opens the jaws, pulling back closes the jaws. When the jaws can't close any more on a woody stem, the tool begins to rock on its fulcrum, uprooting the plant.

Generally, Weed Wrench will uproot any plant if the jaws will fit around the stem, and the tensile strength of the stem exceeds the anchoring strength of the roots.

It will work on virtually all woody plants. Jaw placement is easiest on straight, vertical stems and becomes trickier (but not impossible) on multi-stemmed plants or plants that lay flat against the ground. One case where Weed Wrench will not work is root suckers, which certain species of trees are capable of growing. In that situation the sapling you see above ground may look like it could be pulled, but it is actually growing from a large root from the mother tree and cannot be pulled.

It will work on some herbaceous plants if the stem is fibrous and tough enough so the roots pull out before the stem is crushed to the breaking point. Burdock and some thistle species are examples of this.

It will work on previously cut off plants when a stub of the original stem is accessible or can be exposed by a little digging. On the other hand, previously cut off plants can present a worst-case scenario where the root has gotten much bigger than the suckers growing from it indicate, and it may be impossible to pull.

It will pull wooden tree stakes for re-use. It shouldn't be used for pulling steel fence posts as that will eventually damage the gripping surface on the jaws. It will not work on soft-stemmed plants. It will not work on plants which growing in a clump like pampas grass or bamboo, although it has been used successfully to control bamboo runners



Safety Tips

- **Be Prepared:** Always be prepared for the plant you are pulling to break loose suddenly when the roots pull free, a branch breaks off, or a bad jaw placement slips off. Brace yourself to avoid falling backwards, or be sure that if you do fall, it isn't over a bank or onto a sharp object.
- **Be Aware:** When working with or carrying a Weed Wrench, be careful of people nearby. It's safest to carry the larger sizes on your shoulder with the head behind you and the long lever arm in front where you can see its swing.
- **Avoid Injuries:** Always be cautious when pulling plants that have thorns or stiff branches at eye-level; wear eye protection if necessary. The jaws have tremendous gripping force. Keep your fingers away of them, and away from areas where pinching or scissoring actions are occurring.

Operating Tips

- **Placing the Jaws**

Open the jaw until the jaw-catch engages. You can do this by bumping the nose of the tool on the ground while pushing the handle forward. The jaws will stay open while you place them around the stem. Disengage the jaw-catch by putting your toe on top of the lifter arm behind the jaw and giving the handle a tug. If the jaw shows any tendency to slip upward instead of gripping the stem, keep pressure with your foot on the lifter arm until the jaw is solidly clamped on.

If the plant is one that spreads at ground level and has branches interfering with strong placement of the jaw, you can grab the interfering branches with the Weed Wrench and rip them off to gain access to the stronger stem. Or, you can use a pair of loppers or a pruning saw to get the offending parts out of the way. When working with a plant that has needles or thorns you may want to saw it off a few inches above ground before pulling the root; then you won't have the top stabbing you while you work the Weed Wrench™.

- **Uprooting the Weed**

Once the jaw is clamped on, give a short hard pull to determine whether it's going to be an easy or hard root to extract. If it starts to give way, just keep pulling. If it doesn't, don't try to pull it in one stroke. Instead, begin "pumping" the handle, rhythmically pulling hard, then relaxing the pull. This will fracture the soil a little more with each pump, the ground will begin to heave, and finally you will hear a muffled "pop" deep underground when the taproot releases. This technique is a great trick for defeating stubborn plants. In a tough case, dig around the plant with a series of pick or mattock strokes to break the surface soil and some of the lateral roots, then try pumping the Weed Wrench handle again. In practice, you rarely need to resort to this. The pumping technique is also useful for gently coaxing a root out of the soil when a weak stem might otherwise break before the root pulls free.

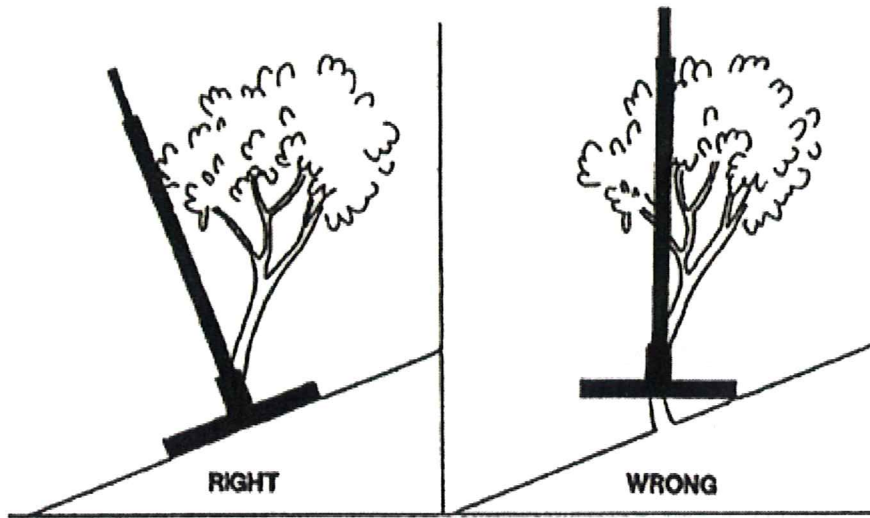
- **Tough roots and soft soil**

In rare situations a plant may be growing where the surface soil is soft but the roots are down into hard soil; this can cause the heel (fulcrum) of the Weed Wrench to dig into the soil instead of the plant lifting out. Landscapers using Weed Wrench to pull tree stakes have reported this problem, too. A scrap of plywood placed under the fulcrum solves it. Weed Wrench works well for pulling a tree stake: Just nibble it out in a series of small bites so you don't break the stake by bending it too much. You can pull steel fence posts this way, too, but be warned that this can damage the jaw facings on the Weed Wrench.

- **Defeating sawed-off stubs**

Plants that have been cut off at ground level present a trickier, but not impossible, situation. The roots are now bigger and stronger than the top, and new stems rip off easily. Yet it takes a surprisingly small nub of the original stem to provide a good grip for pulling the root. Sometimes cutting the bushy re-sprouted branches out of the way helps, or digging a little soil away from the main stem to expose enough of it to grab. Scraping the jaw back and forth sideways on the ground past the stem stump is frequently all it takes to dig the jaw faces down far enough to grip the root.

- **Keep the Fulcrum Flat on the Ground**



Always have the fulcrum flat on the ground before attempting a pull. On level ground this isn't an issue, but on hillsides you might be tempted to take a pull with only one end of the fulcrum touching while you place the jaw straight on a vertical stem. Better to have the fulcrum in full contact with the ground, even if it means gripping the stem at an angle—it will still pull just fine. Failure to heed this can bend the fulcrum at the lifter arm, or in some cases bend the lifter arm at the fulcrum. This damage can be repaired, but it's much easier to just avoid it. Weed Wrench has been used on all angles of terrain, even cliff faces. You can always find a way to pull effectively without harming the tool.

- **Know the tool's limits**

Various factors can affect your success using the Weed Wrench: soil too hard, taproot lodged in bedrock, roots tangled with an adjacent plant's, or in the case of some tree species, what appears to be a sapling may be a root sucker growing from a large root of an adjacent mature tree. Savvy operators will know when to stop before they bend the tool. Don't put a cheater pipe on the grip handle for more leverage, it will only bend the handle. Don't put two people on it! It is designed to work with the strength of one person, not a team.

Maintenance

- The jaw facings will collect dirt and bark until eventually their gripping ability is reduced. A Weed Wrench still works with the teeth clogged, it just works better with them clean. Pick the teeth clean with an ice pick, screwdriver, or similar sharp tool. This is more safely and easily done in a shop with a vise to hold the tool than in the field. Soaking the jaw faces in water for ten minutes before you start cleaning is a big help.
- A little oil on the moving parts, especially during the break-in period or in wet climates, will help your Weed Wrench operate smoothly.
- If the jaw-catch mechanism freezes up after use in rain or mud, remove the Allen screw, spring and steel ball to clean and lubricate them. When you re-assemble, adjust the Allen screw pressure so that the jaw stays open against gravity when you lift the tool off the ground, and the jaw closes easily when you want it to.