Useful Tools for Manual Extraction

Pulling Tools:

All the pulling tools require you to get as many of the upright stems of the ABH into the vice. They all have the problem that, sometimes, this is difficult to do because of bush habitat at ground level. Therefore, someone has to bend down and force the stems into the vice. This can slow things down.

- 1. **The Extractigator** is the lightest weight tool for manual pulling and is easier for women and children to use. For me, it is the most effective tool. It is a clamp on a stick; when you hold the device upright the clamp falls opened and stays opened easily. You then kick it into place around the base of the plant and then, as you rock the handle towards you, the clamp closes and the bush comes out with your power leveraged by the stick. It works VERY well when it works. I would only buy the larger size (cost is about \$125; weight is 12 lbs) and don't buy this tool without getting the "Big Foot" attachment (for an additional \$20; weight is 1.4 lbs). It really is a necessity not an optional extra. This manufacturer provides a discount for bulk orders. **Total weight is 13.4 lbs and cost is \$145 plus shipping**. Available at: http://extractigator.com
- 2. **The Uprooter** You may know of the Weed Wrench, which is no longer available. A former employee of that company is now selling a similar tool called 'The Uprooter'. It weighs 15.75 lbs. and has a larger clamp size and better design than the Weed Wrench. If you liked the Weed Wrench, you will like this tool. When you kick the vice open, it will stay that way so you can put it at the base, but you have to keep your foot on the tool base and pull the bush towards your body to close the clamp; I find that a problem. It is also hard to keep the clamp closed tightly, unless you can keep your foot pressed down on the tool base. It costs \$150 plus shipping. Available at: http://www.theuprooter.com/
- 3. The **Pullerbear** This is also similar to the Weed Wrench. Their website gives a comparison of this tool to the Extractigator and the Weed Wrench. It costs \$99 plus shipping and weighs 13.5 lbs. I recommend adding a wooden base to the tool for better pulling, which will add to the weight and also lift the vice up off the ground, thereby losing the advantage of clamping low. This tool is highly recommended by DIY, but I found it clumsy. I couldn't get the clamp to stay open so I had to bend down to push it around the base almost every time. Without an added wooden platform, the tool sinks into the ground and you lose leverage. And yet, despite this, people with good upper body strength (mostly athletic men) seem to like this tool. http://www.pullerbear.com/compare.html

Prying Tool:

The Honey Suckle Popper is like a huge crochet hook on a heavy wooden fulcrum. This tool weighs about 26 lbs. This is the tool that athletes and stronger people like the best. It works on more plants without the problems presented by bush habit at the ground level, which is a factor with all pulling tools but it is very heavy, weighing almost twice as much. Perhaps for this reason, the manufacturer of the Popper has stopped making them but promises to sell detailed plans for making your own. The phone number is 513-756-0489. The website is up but inactive: http://www.misterhoneysuckle.com

Tools for Snapping Roots:

- 1. **The Root Buster** is like a pile driver (only with a wedge shaped blade at the business end). Whenever you have trouble getting a bush out of the ground, you can usually feel where the resistance is and then you put the Root Buster over the area and start driving the blade into the ground until you cut the root. You can use this tool by itself to stab in a full circle and then pull the bush out by hand. The problem with this tool is that the pin is a pain to put in and take out so you tend leave it off while working. This means that the forked blade can easily fall out of the handle and cut off someone's toes not good. If the pin is out, you have to be meticulous about how you carry it or you must replace the pin into the tool. Tractor Supply calls it a Brush Grubber™ Heavy Duty Root Buster and they sell it a bit cheaper than other vendors at \$39.99 in store. You can find it online from many dealers under different names.
- 2. The Sawzall I don't use this tool because I work with students and I can't use power tools, but you would probably like the Sawzall for removing tough roots. Stab the saw blade in the ground and saw through the dirt until you cut the root. It is rough on the tool but it does work. This is really fast and efficient but expect to buy blades. The advantage to you is that it is lighter to carry into the woods; just carry a spare battery and always be certain it is fully charged before you begin a work day. If you already own one, blade replacements are not that expensive and this is a light and efficient option for most soil conditions.

NB: shipping to Indiana is usually in the \$25 to \$35 range.

For the cut & kill method, apply a 20% glyphosate solution to a horizontal cut. Make the cut as low to the ground as you are able. And check back in 2 to 4 months to foliar spray anything that grows back.

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