

GENERAL INFORMATION FOR BCC VOLUNTEERS and PRESERVE MANAGERS

PERFORMING EXOTIC CONTROL WORK

BCC uses 2 methods of control for invasive exotic plants:

1. Mechanical – pulling small plants out of the ground by hand or with the Weed Wrench. This method is preferred for smaller trees and those in moist, loose soil. Be sure to keep roots from contacting the soil. Take care in identifying and removing all smaller exotic plants as well as big ones. These will be large plants next year. Digging of air potato tubers is the preferred method of control for this exotic vine. Knowledge of exotic plant identification is essential. Advantage to mechanical treatment: immediate removal, avoids having to use expensive chemicals.
2. Chemical – Use of herbicides such as Garlon IV and Rodeo (Roundup)
 - ❑ Garlon IV or Element IV (triclopyr) is an oil-based herbicide that is mixed with a vegetable or mineral oil at 18 – 20% concentration. It is a basal bark herbicide, meaning when it is sprayed on the base of woody plants, the chemical will penetrate the cambium layer of the tree and kill it. When bought, Garlon comes in a box containing two containers of 2.5 gallon each of concentrated Garlon. (Element IV is a cheaper version of Garlon and is what we use). The oil diluent comes in 12.5 gallon plastic drums with enough empty space to hold 2.5 gallons of Garlon. However, we use a 5-gallon measured container for mixing because it is much easier to handle. One gallon of Garlon is added to the empty container then 4 gallons of oil are added, making a 20% solution. This must be mixed well before use. Mixed Garlon is stable and can be stored for several weeks. The shelf life of the concentrated Garlon is up to 2 years, possibly longer. Garlon cannot be used in standing water. It remains in the soil for a long period of time.
 - ❑ Rodeo (Glyphosate) (Roundup is what we use) is a foliar herbicide, meaning it has to be sprayed on the leaves of plants to be effective. It is used primarily for vines such as Japanese honeysuckle, kudzu and cogon grass. It is mixed with water at varying concentrations, usually 5%. It becomes inactive upon reaching the soil. A wetting agent must be used with this herbicide.
 - ❑ EZ-JECT – herbicide capsules used with the EZ-JECT wand. – not currently in use by BCC but it is very effective and safe to use.

Literature about each exotic plant and how to control them, type of herbicide to use, etc. is available from Ron Houser

SPRAYERS

- ❑ Backpack sprayers are available from BCC. These hold 2 gallons of mixed chemicals. Care must be taken not to lose one's balance. They can get heavy after a while and they are more difficult to clean out completely. Advantage: you can free up a hand to carry a machete or clipper.
- ❑ Hand sprayers are currently the preferred way to apply herbicide. Either 1 or 2-gallon models are available from BCC. Advantage is that the sprayer can be set down when spraying or pulling up plants by hand. They are much easier to clean after use.
- ❑ Use of sprayers: Do not pump up sprayers any more than necessary to apply a fine spray to the base of a tree. Generally, spray the lower 12 inches with just enough liquid to do the job. You must go all the way around the tree with the spray; otherwise the tree may not die.
- ❑ Avoid overspray. Try to keep all the liquid on the tree instead of running onto the soil.
- ❑ Do not apply Garlon to areas with standing water.
- ❑ Large trees more than 8-inch diameter may require cutting into the bark with a machete or large knife because of the thickness of the bark layer. Afterwards, spray as usual.
- ❑ Sprayers occasionally get clogged with debris. Remove the tip of the sprayer head and stick a wire through the hole to clean it out. The wire is attached to the sprayer.
- ❑ Any unused chemical should be poured back into the large container. The sprayer should be cleaned after use to avoid clogging. Water based herbicides are cleaned with water. Oil based herbicides are cleaned with soap and water. You may use a dishwashing liquid mixed with water.

CLOTHING, PROTECTIVE EQUIPMENT

It is strongly recommended that you wear long pants and long sleeve shirts. Blackberry vines can be especially painful. A machete and hand clippers come in very handy. Either leather or rubberized gloves may be used. Avoid cloth gloves. Try to avoid getting chemicals on your hands. Wash them off whenever possible. Extra soap and water should be brought out for this purpose. High-topped hiking boots or rubber boots are recommended. Eyewear is recommended because of possible chemical contamination and eye injury from thorn scratches. Sunscreen and insect repellent may be helpful to have on hand. A hat or cap will shade you from the sun. A small backpack or fanny pack is recommended.

TIMING OF EXOTIC CONTROL

April through October (the growing season) is the best time to apply basal bark herbicides. Mechanical removal and foliar herbicide use can be done anytime you can identify the plant.

Generally, you will want to start as early in the day as you can. 7:30 is a good start time. During hot weather it is best to stop after 3 hours or so to avoid overheating and exhaustion.

Do not apply herbicide if rain is expected within 24 hours.

NOURISHMENT

At a minimum, you should bring 1 quart of water with you out in the field and leave more in your car. Gatorade works better for replacement of electrolytes and gives you more energy. Take a break every 30 minutes or so.

HAZARDS TO CONSIDER

Sunburn, dehydration, fatigue and mosquito bites can be prevented. Yellow jacket and ant bites happen on occasion. People allergic to insect bites should not do this work. Snakes are rarely seen and generally avoid people. Be observant and respect all wildlife. Falls can happen due to uneven ground and fallen logs hidden in the grass. If using a machete, be extremely careful, especially around other people. Back injuries could occur because of trying to pull too-large trees out of the ground. If they don't come up with a couple of pulls, use spray on them.

Homeless people and their makeshift camps are occasionally seen. It is best to avoid these areas.