

QUAIL HABITAT MANAGEMENT USING HERBICIDES

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I. Where Do I Start?

- a. Determine species that need to be controlled.
- b. Determine species that need to be left intact.
- c. Realize that when you remove one species, another will take its place. Determine which species you want to return—grass, forage plants.
- d. Pick the herbicide that will best meet these goals.
- e. Pick the application method that will utilize the herbicide most effectively to achieve your goals.

II. Choosing a Herbicide

- a. Most herbicides available today are very safe—not persistent in the soil or toxic to animals—but levels of toxicity vary with rate and application method. FOLLOW THE LABEL!
- b. For most products, you do not need any application licenses.
- c. Many herbicides will control one particular species: however, they may each have very different effects on non-target vegetation.
- d. There may be several different herbicides that will fit a particular need, but costs may vary widely.
- e. Some herbicides will be much more effective depending on method of application.

III. Broadcast Application

- a. Can be cheapest way to cover large areas, especially areas with dense hardwoods or where invasive species have developed a monoculture.
- b. Very effective as a grass release. There are several herbicides that target broadleaf weeds and can leave native grasses.
- c. Costs vary widely—based on target vegetation and application method.
- d. Every plant in treatment area will be affected negatively or positively.

IV. Foliar Application

- a. The foliage of each plant is individually treated.
- b. Gives the ability to treat individual stems and not affect surrounding vegetation.
- c. Probably the best method for treating plants like palmetto (although full control requires integration of fire and mechanical treatments).
- d. Can be difficult if some targets are difficult to get to or if they are too tall to effectively treat foliage.
- e. Labor can be very expensive and time consuming. There is also a moderate amount of herbicide usage.

V. Herbicide Injection

- a. Herbicide (either in a solution or undiluted) is injected into single tree stems.
- b. Can either make a hack with axe or machete and spray herbicide in cut or there are commercially available units that make the cut and injection in one “strike”.
- c. Very little herbicide is used (with Arsenal AC, 1ml per 3 in diameter of tree), however, labor costs are very high—every tree must be touched.

VI. Basal Bark Treatment

- a. The bottom 18 in of stem is sprayed with a mixture of Garlon 4 and diesel fuel or basal oil mixture (usu. 15-25% Garlon 4). Also available as a ready-to-use product called Pathfinder II.
- b. Controls small to medium sized hardwoods and shrubs well, not as effective on some oaks and larger trees.
- c. Moderate amount of herbicide used as well as moderate amount of labor.

VII. Cut Stump Treatment

- a. After a stem has been cut, herbicide or solution is applied to the *fresh* surface of the stump—most effective if done within a couple of hours.
- b. Provides excellent insurance against resprouting, but it does require that target tree be cut down.
- c. Uses little herbicide, but very labor intensive.

VIII. Conclusions

- a. An herbicide application is a tool that may be best used in conjunction with other tools—fire, chopping, tilling.
- b. While we may control the population of a target species that is up and growing, there is seed stock in the soil that may resprout. A follow-up treatment may be necessary.
- c. Get professional help with habitat and herbicide management.

