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 is 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.