

Managing Wildlife Habitat Using Individual Plant Treatment

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Many times wildlife managers are faced with controlling woody plants as they manage the habitat for various wildlife species. Often the emphasis is on thinning to allow more sunlight to reach the soil surface and stimulate grass or forb growth. In other cases, selective removal of non-mast-producing tree species in favor of mast-producing species is a desirable strategy. When woody plant stem number less than 350 per acre, Individual Plant Treatment (IPT) can be a cost-effective method of managing unwanted woody species. There are essentially five IPT strategies to consider depending on the circumstances involved. Remember to allow treated plants (other than cut stump treated plants) to stand for 12 months prior to cutting for removal.

A. Stem Treatment: This treatment method uses a 15-25% mixture of triclopyr in diesel. Apply the mixture to the lower 12-18" of any smooth bark tree. The 25% mix should be used on rough, corky bark of more mature plants. This treatment may be made at any time of year unless there is frozen ground or standing water. For yucca control, apply the same triclopyr-diesel mixture directly into the whorl of yucca plant. No private pesticide applicators license is required to purchase the triclopyr herbicide. Due to the lack of residual soil activity, the use of triclopyr-diesel as a stem treatment is a highly selective method for controlling woody species and an extremely



safe treatment for non-target species in the immediate vicinity. This treatment method is most useful when there is only one or two stems per plant or when plants are >8 feet in height.



B. High Volume Foliar Spray: This treatment method usually requires 1% total concentration of a herbicide or combination of herbicides, depending on the target species and ¼% non-ionic surfactant with at least 90% active ingredient combined in water. Herbicide is applied to all foliage to the point that leaves glisten, but not to the point that herbicide runs off. Timing of application is during the late spring/early summer when growing conditions are good and foliage has turned dark green. A private pesticide applicators license may be required depending on herbicide used. This treatment method is most useful when there are

multiple stems per plant and when plants are <8 feet in height.

C. Spot Soil Treatment: This treatment method involves the use of hexazinone herbicide with a spot-treatment delivery gun. Depending on the size of the target species, a number of "spot" applications of the herbicide are applied directly to the soil surface midway between the base of the plant and the canopy edge. For stems <6 feet in height, apply 2ml of herbicide for each 3 feet of height or canopy diameter, whichever is greater. For stems >6 feet in height, double the application rate to 4ml. Hexazinone does not require a license to purchase. Treatment should be applied during good growing conditions. Beware that hexazinone is **not selective** and will destroy **any** woody species. As an alternative, tebuthiuron pellets may also be used to control woody species. Tebuthiuron works best on sandy-textured soils and is likewise non-selective in its effect on woody species.



D. Cut Stump: This treatment is designed to reduce re-sprouting whenever woody species are cut. With this treatment method, cut the target species close to the ground to minimize interference with vehicle or walking traffic. Use the same herbicide treatment as described in the A. (Stem Treatment) above, but apply enough herbicide to thoroughly wet the surface, especially the edges of the stump. The treatment may be applied at any time of the year as long as standing water or snow do not interfere with treatment to the ground level.

E. Tree Injection: Instead of cutting off the stem, "Frilling" around the base by cutting gashes in the bark with a hatchet, axe, or machete and then pouring or spraying the herbicide in the cuts is also very effective. Spaced cuts are made around the trunk of the tree with an ax or hatchet and this treatment is used on larger diameter trees that are not felled. Make cuts through the bark of the tree into the cambium tissue. Cuts should be approximately two inches long and should be spaced so that there is no more than two inches between cuts around the circumference of the tree. Apply an appropriate herbicide such as picloram + 2,4-D (undiluted), dicamba + 2,4-D (undiluted), or triclopyr (undiluted or 1:1 triclopyr/water) into the cut. This treatment is useful for destroying larger diameter trees and especially useful for creating snag trees for cavity nesting birds.



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