

Chemical Control of Honey Locust and Other Brush Species

Any time is the right time to make management decisions to control honey locust and other brush in your pastures, hay meadows, and border land. While the ideal time for using chemical herbicides for optimal control has come and gone, fall applications can offer opportunities to get these problematic, brushy, plants under control as you wait for the spring season.

Controlling problematic plants in any circumstance is best when approached with an integrated weed management plan. An integrated weed management can combine multiple practices of the four recognized by Kansas State University: chemical, mechanical, cultural, and biological. While each of these method types should be thoroughly considered, for most brush species, especially honey locust, chemical, cultural, and mechanical are the best to be considered.

Because Honey Locust, and other similar brush species will have a well-established root system, they are able to send up suckers and new sprouts after they have been cut. This means that in most cases, mechanical controls, such as cutting, will not be effective on its own.

Cultural control methods are mostly preventative measures that are not effective in controlling an already established problem of brushy-plants, but prescribed burns could be an option in controlling appropriately sized trees, if the area allows for it.

Chemical herbicides can be extremely effective in killing these plants if applying the correct herbicide, at the correct time, in the correct way. The correct herbicide needs to be used to achieve your goals. If you want to kill honey locust in a pasture, but do not want to harm the grass, a different herbicide, or herbicide mix should be used than if you are solely trying to eradicate the honey locusts, and some dead grass is acceptable. The correct herbicide also depends on the timing and application method, but most importantly, the correct herbicide depends on the herbicides' labels. If the species of plant is not on the label for control, do not use it. If the label only allows usage before a certain date, do not spray outside of those guidelines. And if the label calls for a certain rate, do not spray a doubled rate thinking that you will get better control.

The correct time to spray brushy plants greatly depends on the species. If you are trying to control a perennial plant, you will need to spray the plant during the time that the plant is sending nutrients to the roots. An example would be needing to spray buckbrush in early-May versus needing to spray blackberries sometime after late-May. If you missed that period, then spraying when the plants are actively growing is the next-best option.

The correct method of applying the herbicide is dependent on the type of herbicide, timing of the application, and the species and size of the plants. There are many different ways to apply herbicides, but the main application methods are foliar, soil, basal bark, girdle, and cut stump applications. Each method has its own level of effectiveness, and its own level of work involved.

Foliar applications are when you will spray an actively growing and leafed-out plant. This is one of the easiest application methods that does not require any cutting, or exposing of certain parts of the

plant. It can be applied via broadcast spraying (spraying an entire field at once) or via spot spraying (spraying only the targeted species). Foliar application is very effective on non-woody plants, but does not achieve the same effectiveness on larger brush.

Soil applications are applied to the soil and work to kill weeds when they are taken up by the roots. Soil applications require the herbicide to have some residual activity in order for it to be taken up by the plant.

The basal bark application is an effective control method that will not require cutting, but you will need to expose the lower portion of the trunk of the target plant. After exposing the trunk, the lower 12-18 inches of the trunk is liberally treated, all the way around the trunk with the correct herbicides. The basal bark method is effective on larger woody plant species.

The Girdle Application is an effective method that does require cutting. By creating a 1-2 inch cut around the circumference of the trunk, you will cut the cambium layer of the tree, effectively killing the above ground portion of the plant. The herbicide is needed to kill the roots and prevent new sprouts. The correct herbicide should be applied directly in to the girdle cut, before the sap in the cut has time to harden.

The cut stump application is the most labor-intensive option, but will not leave the brush in the pasture. After cutting the tree at or just above ground level, apply a ring of herbicide on the outer, cambium layer of the stump. This should be done soon after the cut is made to ensure the sap does not have time to harden. This herbicide application will prevent any sprouts from appearing.

For Honey locust trees, there are numerous herbicide options for control. For foliar applications, herbicides that contain picloram (tordon 22k), aminopyralid (milestone), Fluroxypyr (Surmount), along with mixtures of the above herbicides, and other herbicides labeled for foliar control of locust trees. Each product will perform differently at different times of the year so it is important to read, and follow the label on the herbicide you chose.

For basal bark, cut stump, and girdle treatments, many of the same herbicides can be used. These would include picloram (tordon RTU, 22k), and aminopyralid (Milestone) as well as using triclopyr (remedy Ultra/ Pathfinder II). Some herbicides require a carrier other than water to effectively penetrate the bark, such as using diesel fuel as the carrier for remedy ultra. It is important to follow all the directions listed on the product label when doing these applications.

Although the optimal time for spraying woody plants has passed, it is still a good idea to make an effort in controlling these plants now, to slow their spread in our fields. For honey locust trees, spraying in August and September with remedy ultra and diesel fuel, using the basal bark method, will effectively kill many plants, or at the least, hold the spread of the trees until more appropriately timed applications can be made the next year.

For help in deciding what control method is best for your situation, please reach out to me, Chad Guthrie, at any of the Southwind Extension Offices.