

News Column

Stacy Campbell

Cottonwood Extension District, Hays

October 6, 2017

### **Ignore them now and pay later**

A thorn in your side is a common phrase we have all heard. Today's farmers and ranchers can relate to this when it comes to thorny honey locust trees that can take over certain pastures where they are growing if not controlled.

Locust trees and other undesirable brush species can invade and compete with desirable forage for moisture, light, and nutrients, and can be a major limitation to rangeland production. Dense brush stands obstruct grazing, reduce livestock performance, and interfere with livestock handling. Removing trees and brush from rangeland can increase forage production and livestock carrying capacity, which can increase the value of the land.

Brush invasions frequently are ignored, until they become severe. Control can be difficult and expensive, and the cost of attempting to eradicate a species usually exceeds any benefits gained, once they have gotten out of hand. That is why it is best to remember this now and make it a year round priority just like you do with thistle control, by staying on top of brush control now before it gets out of hand.

There are basically five different methods of using herbicides to control tree and brush species that can be used, and their effectiveness also depends on what time of the season you are targeting the plant pest. For example, to use a foliar application it is best to apply the herbicide in the spring when brush is nearing full-leaf stage and growing actively. A dormant stem application is done when brush is dormant and the bark is dry. Soil application is best to apply from April through June during the period of active growth. Basal bark application and cut stump or frill application for best root control is obtained from mid-July to mid-January. Periods of dry weather also will aid in root control. Basal bark application is for woody plants with less than 6-inch basal diameter.

Scattered stands of individual trees should either be treated individually using the basal bark herbicide application method (for labeled plants less than 6 inches in diameter), or the cut stump treatment method. The basal bark and some cut stump treatments will not be effective if the plants cannot be treated down to the soil line, depending on the herbicide being used. Avoid conditions where water (or snow later in the season) prevents spraying to the ground line. Not all herbicides for the cut stump method require treating to the ground line, it is important to always read and follow label directions.

Mowing or cutting resprouting trees such as honey locust and hedge without spraying an herbicide will only increase production of sprouts and lead to more problems.

Application equipment for cut-stump application includes pressurized hand sprayers, small backpack sprayers, sprayer mounted on ATV with handheld gun, hydraulic tree shears or saws with an attached spray nozzle, or even a paint brush. Two of the more common pieces of equipment for cutting the woody plants are the turbo saw and the hydra clip attachments to skid-steer tractors.

Although exposure of grazing animals to herbicides is reduced by basal and cut-stump treatments, grazing and haying restrictions still need to be followed. There are no restrictions before grazing with any of the herbicides discussed. Check labels for restrictions for use prior to hay harvesting, removal of animals before slaughter, and for use around lactating dairy animals.

Keith Harmoney, Range Scientist at the Agricultural Research Center - Hays has conducted a large scale replicated field trial to control honey locust. Nearly five-hundred trees were treated on September 10, 2012 and August 21, 2013 using the cut stump and basal bark methods with different herbicides to evaluate their effectiveness. Below are the results of the treatments after two growing seasons to fully assess if the trees are completely killed with no resprouts.

<u>Herbicide Mix-Application Method</u>	<u>Herbicide Rates – v/v</u>	<u>Avg. % Dead Trees</u>
1. Remedy/diesel - basal bark	25% Rem, 75% diesel	76%
2. Milestone/oil - basal bark	5% Milestone, 95% oil	97%
3. Milestone/water - cut stump	10% Milestone, 90% water	99%
4. Dicamba/2,4-D/water - cut stump	33% Dicamba, 2% 2,4-D, 65% water	84%
5. Remedy/diesel - cut stump	25% Rem, 75% diesel	54%

After one year, bark and thorns of many controlled trees were already peeling. By the third year after treatment, a majority of the thorns and bark should be peeled from controlled trees making them more desirable for use as firewood.

It is important to emphasize that when honey locust trees are cut the herbicide should be applied immediately. The stump will soon seal over with a thin protective sap. Usually, treating the entire surface area of the stump is not required, treating completely around the outside edge of the stump is sufficient for most herbicides; however, the label requires treating the whole bark area to the soil surface for some herbicides (**read the label**). The basal bark application is accomplished by spraying the basal parts of brush or trees from the soil surface to a height of 15 inches above the ground. Thoroughly wet all basal bark areas, including crown buds and ground sprouts and roots.

Always read and follow the herbicide label directions, and make sure that oil carriers form a compatible mix with the herbicide being applied. An oil with an emulsifier that will mix well must be used with Milestone for the basal bark application method to penetrate through the bark. It is suggested to do a clear jar test to make sure the two products mix well.

Brand names appearing in this article are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned.

If you have further questions contact Keith Harmony at 785-625-3425, ext. 221 or your local K-State Research & Extension Office.