Garlon® 4 Ultra

HERBICIDE

Dormant Stem Treatment in Your Operations

- Help control future maintenance costs by addressing incompatible plant species while at a stable and manageable height
- Provide flexibility enabling application crews to start earlier and work later in the year creating the ability to keep knowledgeable and experienced crews working within your program
- Offer a vegetation management solution which minimizes "brown out" which can reduce public scrutiny
- Allow vegetation managers the ability to apply budget dollars earlier or later in the year to manage budget fluctuations

Recommended Timing for Dormant Stem Application

Applications can begin soon after the onset of fall leaf drop and continue through the dormant season until the early stages of spring. The recommended timing of fall dormant stem treatments is when target vegetation has reached 50-75% leaf drop and can continue through early spring before woody vegetation exceeds 25% leaf out.

Dormant Stem Treatments and Foliar Application Differences

Dormant stem applications rely on herbicide uptake through the buds, bark, and stems of the target species whereas foliar applications rely on herbicide uptake primarily through the plant foliage. Also, dormant stem applications are applied during the dormant season vs. growing season and allow for reduced visibility from brown-out especially on deciduous species.

Control Levels Expected Compared to Foliar Treatments

Similar to any type of herbicide treatment, a proper application is critical for best results. Performance can vary by species and products used. Based on our research expect 85-95% control when using properly trained crews and recommended equipment.

Products (Herbicides and Adjuvants) Used for Dormant Stem Applications

The foundation herbicide for this treatment is Garlon® 4 Ultra. Other herbicides such as Milestone® and imazapyr are often added based on the target species and plant selectivity desired. High quality adjuvant blends which include a methylated seed oil (MSO) which aids in penetration and nonionic surfactant (NIS) which improves spreading and coverage are preferred. Commercial basal oils containing emulsifiers may also be used. Mixing oil and water soluble herbicides with water can separate over time. It is recommended to use a spray tank designed with an agitation system to keep the mixture in suspension. When using blended goods emulsifiers can be added to the oil and water concentrate to reduce separation.

CORTEVA™ agriscience

Vegetation Management™

Dormant Stem Treatment Applications to the Bark of Trees Will Not Damage Large Trees

More than 25 years of experience has shown that when proper mixing and application techniques are used dormant stem treatments will not pose a threat to overstory trees from either bark or root uptake. The mixture primarily consists of water with low rates of adjuvant and herbicide therefore minimizing the possibility of this occurring. Branches of edge trees that are treated will be controlled.

Selectivity of Dormant Stem Treatments

Selectivity depends on the products used and application timing. Garlon® 4 Ultra herbicide only controls emerged broadleaf weeds and woody plants. However, any emerged green grasses present during the time of application may experience some browning from the oil adjuvants resulting in temporary injury. Susceptible plants that complete their life cycle between growing seasons will not be controlled unless they are present during the time of application.

Dormant Stem Treatments vs. Basal Bark Treatments

Dormant stem treatments consist of a diluted mixture of herbicide and adjuvant which use water as the primary carrier and are applied to the stems and bark of the target plant. Basal bark treatments are comprised of a higher concentration of herbicide mixed in oil and specifically applied to the lower 12-15 inches of the stem above the ground line. Dormant stem treatments are suitable for sites with variable brush densities. It is designed to be used on stems 3 inches or less in diameter. Basal bark treatments are best suited for sites with low stem densities (less than 750 stems per acre) and taller brush. Both dormant stem and basal bark treatments should not be used on stems greater than 6 inches in diameter.

Material is Absorbed by the Plant

Material enters the plant vascular tissue by absorption through the buds, stems, and bark.

Impact of Rain and Effectiveness of Treatments

Once the solution is applied it's very difficult to wash off. Research has shown rainfall immediately after application does not affect absorption or treatment effectiveness. If the target stems and bark are wet prior to application, wait until dry before beginning application.

Limitations to the Brush Size Target Species

Target species should be 3 inches or less in diameter. Larger diameter plants tend to have thicker bark making absorption more difficult, thus applications to larger diameter plants is not recommended. Height will vary by species but experience has shown applications to be more consistent when the brush is mostly head high or less.