# Product Bulletin

Dow AgroSciences LLC 9330 Zionsville Road Indianapolis, IN 46268-1054 USA

# Spike* 20P

**EPA Reg. No. 62719-121**

**Special 2(ee) Recommendation†**

**For Distribution and Use Only in the States of Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington, and Wyoming**

**Reduced Rate Application for Big Sagebrush Canopy Cover Reduction**

**ATTENTION**

**†This recommendation as made is permitted under FIFRA Section 2(ee) and has not been submitted to or approved by EPA.**

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for Spike 20P before applying. Carefully follow all precautionary statements and applicable use directions.
- Except as described below, use of Spike 20P according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for Spike 20P.

## Directions for Use

Spike* 20P herbicide may be applied at reduced rates of 1.0 to 2.5 lb per acre of product (0.2 to 0.5 lb a.i./acre tebuthiuron) where reduction in big sagebrush (*Artemisia tridentata*) canopy cover is desired for wildlife habitat development and enhanced forage production. Application of reduced rates will thin (not eliminate) the live cover of big sagebrush resulting in a more open mosiac of woody and herbaceous vegetation and greater biodiversity on many sites.

The effectiveness of Spike 20P is dependent upon soil texture, soil organic matter, sagebrush density and plant growth conditions following application. The active ingredient (tebuthiuron) is more available for root uptake in coarse textured soils with low organic matter content. Conversely, in soils with high organic matter or clay content, a greater portion of the tebuthiuron will be bound (adsorbed) to the soil material and less available for uptake.

### Application Rates

To choose the appropriate rate of Spike 20P, site characteristics, current live canopy cover, and desired live canopy cover must be considered.

**Thinning:** Rates of 1.0 to 1.5 lb/acre of Spike 20P (0.2 to 0.3 lb a.i./acre) are recommended to provide a thinning effect (50 to 75% canopy reduction) in big sagebrush growing on coarse to medium textured soils with less than 4% organic matter. Higher rates may be required to achieve the desired level of canopy cover reduction on sites with the following characteristics: Soils with greater than 4% organic matter content, soils with greater than 30% clay, or on sites with very dense sagebrush (40% or greater canopy cover).

**NOTE: On high elevation areas (7800 ft or higher), or on sites with high organic matter (5% or greater), higher rates (2.5 to 3.5 lb/acre) may be required. Test areas are recommended before a large scale treatment program is initiated.**

**Control:** Rates of 2.0 to 2.5 lb/acre of Spike 20P (0.4 to 0.5 lb a.i./acre) are recommended to provide a higher level of canopy reduction in big sagebrush (80 to 95%, depending on site characteristics) on coarse to medium textured soils with less than 4% organic matter.

Best and most rapid forage response can be expected where desirable grasses and forbs, suppressed by competition from big sagebrush, are present in the understory at the time of application. Optimum forage response, however, is also dependent upon adequate rainfall following application and proper grazing management.

Spike 20P may be applied using properly calibrated ground or aerial equipment capable of providing accurate and uniform distribution of Spike 20P. Use of equipment not properly calibrated or which does not provide uniform application may result in injury to desirable plants and unsatisfactory thinning results. Application can be made anytime, except when soil is frozen or snow-covered. Herbicidal symptoms appear most rapidly when Spike 20P is applied just before seasonal rainfall and when conditions are favorable for rapid uptake of soil moisture by plants. In periods of drought, the onset of a significant herbicidal response and canopy reduction may be delayed a year or more.



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**Special 2(ee) recommendation:** Reduced rate application for thinning/canopy reduction.