

RECOMMENDED CHEMICALS FOR WEED AND BRUSH CONTROL

Prepared By

Tom Barber, Bob Scott, and Hannah E. Wright-Smith, Extension Weed Scientists; Scott Jones, Small Impoundment Extension Specialist, University of Arkansas Pine Bluff; J.K. Norsworthy, Nilda Burgos and Matthew Bertucci, Weed Scientists, Agricultural Experiment Station of the University of Arkansas; the personnel of the Cooperative Extension Service; and USDA

The control of weeds and brush is essential for the economical production of crops. The high cost and decreasing availability of labor make it necessary to fit the use of herbicides into the production practices already in use on many crops.

This publication is a summary of the latest recommendations for the use of herbicides in Arkansas and conforms with federal and state regulations. Supplemental leaflets giving more detailed information on herbicide usage for specific crops are listed in this book. A herbicide should be tried on a limited acreage until one is experienced with it. Because of volatility and drift hazards to sensitive crops, 2,4-D and dicamba related compounds must be applied according to the Arkansas State Plant Board and regulations listed in the Arkansas Regulations on Pesticide Classification document which is available online at: <https://www.aad.arkansas.gov/laws-regulations>, or from your local county Extension agent. It is important that the user of a herbicide **carefully read and follow the label directions for use and precautions** on the container. Grazing restrictions should be followed per label recommendations.

Endangered Species Act and Bulletins Live Two

Before applying herbicides, you must obtain any applicable Endangered Species Protection Bulletins within six months prior to or on the day of application. Product use restrictions and mitigation measures should be followed to protect listed species and their designated critical habitats, including geographical use limitations; consulting with the Endangered Species Protection Bulletin (Bulletins Live! Two) and mitigation menu web site (<https://www.epa.gov/pesticides/mitigation-menu>); spray drift and nozzle selection; buffer requirements; runoff mitigation measures including selection of practices and determination of soil types. All farmers and applicators are required to follow restrictions provided on the Bulletins Live! Two website in addition to all other labeled requirements.



For more information on and locations of endangered species bulletins, please scan the QR code to visit the Bulletins Live! Two website.



Mitigation menu website.

NOTE:

Herbicide rates recommended are all on a broadcast basis unless specified. When a herbicide is applied as a band over the row, reduce the rate of material accordingly.

$$\text{i.e. } \frac{\text{Band width}}{\text{Row width}} \times \text{Broadcast rate} = \text{Band rate}$$

For example, where the material is applied in 19" bands on 38" rows, the rate of material should be decreased to $\frac{19}{38}$ or $\frac{1}{2}$ of the amount suggested for broadcast spray. Refer to herbicide application section for specific examples.

Conversion Table

1 tablespoon = 3 teaspoons (0.5 oz)
1 oz = 2 tablespoons
1 cup (½ pint) = 16 tablespoons (8 oz)
1 pint (2 cups) = 32 tablespoons (16 oz or 1 lb) (473 ml)
1 gallon (16 cups) = 8 pints or 4 quarts (8.4 lb water)
1 cu ft = 7.48 gal (62.4 lb)
1 acre = 43,560 sq ft
1 ppm = 3.6 oz/A inch = 0.0038 grams/gal
1 cfs = 450 gal/min
1 mph = 88 ft/min

$$\text{Acres} = \frac{\text{Length (ft)} \times \text{width (ft)}}{43,560}$$

$$\text{Number of Rows/A} = \frac{43,560}{\text{Row width (ft)} \times \text{row length (ft)}}$$

Rating Tables

The rating tables preceding the recommendations for each crop give the performance the University of Arkansas Research and Extension personnel expect under optimum conditions, which include such factors as proper incorporation, adequate moisture for activation, proper timing, spray coverage for postemergence herbicides, etc.

Since many factors may cause a herbicide to vary in performance, the University of Arkansas in no way guarantees these estimates. In addition, a high rating on a weed that is not listed on a herbicide label does not constitute a recommendation for that particular herbicide on that particular weed. Rating scale is 0-10, where 10 equals excellent control and 0 equals no control. A "—" indicates no data.

Herbicide Spray Additives

The addition of an adjuvant (surfactant, oil, etc.) to a postemergence herbicide spray mixture in many cases increases its effectiveness. Where an adjuvant is called for, use the herbicide manufacturer's label recommendations.