



CHEMINOVA CHISUM HERBICIDE

EPA REG. NO. 67760-80

BROADLEAF WEED CONTROL IN WHEAT AND BARLEY IN
THE STATES OF COLORADO, KANSAS, NEW MEXICO,
OKLAHOMA AND TEXAS

DIRECTIONS FOR USE

CHISUM may be applied alone for control of emerged broadleaf weeds postemergence, or in combination with other suitable registered herbicides for wheat and barley. Read and follow all manufacturers label recommendations for the companion herbicide. If those recommendations conflict with this label, do not tank mix the herbicide with CHISUM. It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Apply CHISUM at 0.125 ounces per acre for control or partial control of the weeds listed on the EPA registered label. Include a nonionic surfactant, petroleum based crop oil concentrate, or vegetable-seed oil-based product (rnmethylated seed oils are considered a vegetable seed-based oil). If another herbicide is tank mixed with CHISUM to increase the broadleaf weed spectrum, select adjuvants based on the adjuvant limitations of the companion herbicide.

WHEAT and BARLEY

Use Rates

0.125 ounces per acre

Application Timing

Do not apply during boot and early heading, as crop injury may result.

Effectiveness may be reduced if rainfall occurs within 4 hours after application. Unless otherwise directed, treat when weeds are less than 4" tall or in diameter and are actively growing.

Irrigated Wheat and Barley

Make applications after the crop begins tillering but before boot. First post-treatment irrigation should be delayed for at least 3 days after treatment and should not exceed 1 inch of water.

Dryland Wheat and Barley

Make applications after the crop is in the 2-leaf stage but before boot once per use season. Apply 0.125 ounces CHISUM per acre to wheat and barley once per use season.

WEEDS CONTROLLED

0.125 ounces per acre

Blue/purple mustard*	Miners lettuce
Bur buttercup (testiculate)	Pigweed (redroot, smooth, tumble)
Coast fiddleneck (tarweed)	Plains coreopsis
Common chickweed	Prickly lettuce*
Common purslane	Russian thistle*
Conical catchfly	Shepherd's purse
Cowcockle	Smallseed falseflax*
False chamomile	Smartweed (green, ladythumb, pale)

Field pennycress (fanweed)	Snow speedwell
Filaree	Tansymustard*
Flixweed*	Treacle mustard* (Bushy Wallflower)
Groundsel (common)	Tumble/Jim Hill mustard
Henbit	Volunteer sunflower
Kochia*	Waterpod
Lambsquarters (common, slimleat)	Wild mustard II
Mayweed chamomile	

WEEDS SUPPRESSED †*

Canada thistle*	Knotweed (prostrate)*
Common sunflower*	Sowthistle (annual)*
Corn gromwell*	Wild buckwheat*

* See the Specific Weed Problems section.

†Weed suppression is a reduction in weed competition (reduced population and/or vigor) as visually compared to an untreated area. The degree of suppression varies with the rate used, the size of the weeds, and the environmental conditions following treatment.

SPECIFIC WEED PROBLEMS

Blue Mustard, Treacle Mustard, Flixweed, Small seeded falseflax, and Tansymustard: For best results, apply CHISUM tank mixtures with 2,4-D or MCPA postemergence to mustards, but before bloom. For Tansy mustard, Flixweed, Treacle mustard and Small seeded falseflax control, apply 0.1 ounces of CHISUM plus 114 pound active 2,4-0 ester, If only Tansy mustard, Flixweed or Treacle mustard are present, apply 0.083 ounces of CHISUM plus 1/4 pound active 2,4-0 ester for control.

Canada Thistle and Sowthistle: Apply CHISUM plus surfactant or CHISUM plus 2,4-D or MCPA in the spring after the majority of thistles have emerged and are small (rosette stage to 6" elongating stems) and actively growing. The application will inhibit the ability of emerged thistles to compete with the crop.

Corn Gromwell and Prostrate Knotweed: Apply Cheminova CHISUM plus surfactant when weeds are actively growing, are no larger than 2" tall, and when crop canopy will allow thorough coverage. Tank mixing 2,4-0 or MCPA with CHISUM can improve results.

Kochia, Russian thistle, Prickly lettuce: Naturally occurring resistant biotypes of these weeds are known to occur. For best results, use CHISUM in a tank mix with Dicamba and 2,4-0, or bromoxynil and 2,4-D (such as 3/4 - 1 pint "Buctril" + 1/4 - 3/8 pound active 2,4-D ester). CHISUM should be applied in the spring when kochia, Russian thistle, and prickly lettuce are less than 2" tall or 2" across and are actively growing (refer to the Tank Mixtures section of this label for additional details).

Sunflower (common/volunteer): Apply either CHISUM plus surfactant or CHISUM plus 2,4-0 or MCPA after the majority of sunflowers have emerged, are 2" to 4" tall and are actively growing. Use spray volumes of at least 3 gallons by air or 5 gallons by ground.

Wild Buckwheat: For best results, apply CHISUM plus 2,4-0 or MCPA when plants have no more than 3 true leaves (not counting the cotyledons). If plants are not actively growing, delay treatment until environmental conditions favor active weed growth.

SPRAY ADJUVANTS Nonionic Surfactant (NIS)

Apply at a rate (concentration) of 0.25-0.5% v/v (1-2 qt per 100 gal spray solution). Use the higher rate in hot and dry conditions to enhance control.

Crop Oil Concentrate

Under dry conditions or during cool weather, a petroleum based crop oil concentrate, or vegetable-seed oil-based product may be used in place of a nonionic surfactant at 1-2 gallon/100 gal of spray solution (1-2% v/v) to enhance weed control. Use a petroleum-based crop oil concentrate with at least 14% emulsifiers/surfactant and 80% oil.

Ammonium Nitrogen Fertilizer

An ammonium nitrogen fertilizer can be added to a surfactant or a crop oil concentrate to enhance control. Alternatively, a highquality, sprayable grade of ammonium sulfate (2 1-0-0) may be used.

CROP ROTATION

Minimum Rotational Intervals

Minimum rotation intervals* are determined by the rate of breakdown of CHISUM applied. CHISUM breakdown in the soil is affected by soil pH, presence of soil microorganisms, soil temperature, and soil moisture. Low soil pH, high soil temperature, and high soil moisture increase CHISUM breakdown in soil, while high soil pH, low soil temperature, and low soil moisture slow CHISUM breakdown. Of these 3 factors, only soil pH remains relatively constant. Soil temperature, and to a greater extent, soil moisture, can vary significantly from year to year and from area to area. For this reason, soil temperatures and soil moisture should be monitored regularly when considering crop rotations.

* The minimum rotation interval represents the period of time from the last application to the anticipated date of the next planting.

Soil pH Limitations

CHISUM should not be used on soils having a pH above 7.9, as extended soil residual activity could extend crop rotation intervals beyond normal. Under certain conditions, CHISUM could remain in the soil for 34 months or more, injuring wheat and barley. In addition, other crops planted in high-pH soils can be extremely sensitive to low concentrations of CHISUM

Checking Soil pH

Before using CHISUM, determine the soil pH of the areas of intended use. To obtain a representative pH value for the test area, take several 0" to 4" samples from different areas of the field and analyze them separately. Consult local extension publications for additional information on recommended soil sampling procedures.

BIOASSAY

A field bioassay must be completed before rotating to any crop not listed (See the Rotation Intervals table), or if the soil pH is not in the specified range, or if the use rate applied is not specified in the table. or if the minimum cumulative precipitation has not occurred since application.

Field Bioassay

To conduct a field bioassay, grow test strips of the crop or crops you plan to grow the following year in fields previously treated with CHISUM. Crop response to the bioassay will indicate whether or not to rotate to the crop(s) grown in the test strips. If a field bioassay is planned, check with your local Agricultural dealer for information detailing the field bioassay procedure. Before using CHISUM, carefully consider your crop rotation plans and options. For rotational flexibility, do not treat all of your wheat or barley acres at the same time.

Rotational Intervals for Cereals

All Areas - Following Use of Cheminova CHISUM at 0.125 ounces per Acre

Crop	Soil pH	Minimum Cumulative Precipitation (inches)	Minimum Rotational Interval (months)
Winter and spring wheat	7.9 or lower	No restrictions	1
Durum wheat, barley, spring/winter oat	7.9 or lower	No restrictions	10

Rotation Intervals For Crops in Non-Irrigated Land

Following Use of CHISUM at 0.125 ounces per Acre on Wheat and Barley

Location		Crop	Soil pH	Minimum Cumulative Precipitation (inches)	Minimum Rotational Interval (months)
State	County or Area	Grain sorghum, Proso millet	7.9 or lower	No restrictions	10
Colorado	Statewide	Flax, Safflower, Sunflower	7.9 or lower	No restrictions	22
		Field corn	7.9 or lower	15	12
		IR Corn	7.9 or lower	No restrictions	4
		STS Soybeans	7.9 or lower	No restrictions	4
Kansas	Central & Western Kansas (West of the Flint Hills)	Field Corn	7.9 or lower	15	12
		IR Corn	7.9 or lower	15	4
	Western Kansas W. of Hwy. 183	Soybeans	7.5 or lower	22	22
			7.6 – 7.9	33	34
	Central Kansas, Generally E. of Hwy. 183 and W. of the Flinthills	Soybeans	7.9 or lower	15	12
STS Soybeans		7.9 or lower	15	4	
New Mexico	Statewide	Grain sorghum, Proso millet	7.9 or lower	No restrictions	10
		Flax, Safflower Sunflower	7.9 or lower	No restrictions	22
	Eastern New Mexico	Cotton (dryland only)	7.9 or lower	30	22
Oklahoma	Statewide	Grain sorghum, Proso millet	7.9 or lower	No restrictions	10
		Flax, Safflower Sunflower	7.9 or lower	No restrictions	22
		Field corn	7.9 or lower	15	12
		IR Corn STS Soybean	7.9 or lower	No restrictions	4
	Panhandle	Cotton (dryland only)	7.9 or lower	30	22
	E. of the Panhandle	Cotton (dryland only)	7.9 or lower	25	14
Texas	Statewide	Grain sorghum, Proso millet	7.9 or lower	No restrictions	10
		Flax, Safflower, Soybean, Sunflower	7.9 or lower	No restrictions	22
	Panhandle	Field corn	7.9 or lower	15	12
		Cotton (dryland only)	7.9 or lower	30	22
	N. Central Texas*	Field corn	7.9 or lower	15	12
		Cotton (dryland only)	7.9 or lower	25	14

* The counties of N. Central Texas are: Archer, Baylor, Bell, Bosque, Bowie, Callahan, Camp, Cass, Clay, Collin, Cooke, Coryell, Dallas, Delta, Demon, Eastland, Ellis, Falls, Fannin, Foard, Franklin, Grayson, Hardeman, Haskell, Hill, Hood, Hopkins, Hunt, Jack, Johnson, Kaufman, Knox, Lamar, Limestone, McLennan, Milam, Montague, Morr is, Nafarro, Palo Pinto, Parker, Rains, Red River, Robertson, Rockwall, Shackelford, Somervell, Stephens, Tarrant, Throckmorton, Titus, Upshur, Van Zandt, Wilbarger, Wichita, Williamson, Wise, Wood, Young.

GRAZING

There are no grazing restrictions on Cheminova CHISUM.

IMPORTANT PRECAUTIONS

Treated vegetation may be cut for forage or hay. Coveralls, shoes plus socks must be worn if cutting within 4 hours of treatment.

IMPORTANT BEFORE USING CHISUM, READ AND FOLLOW ALL APPLICABLE DIRECTIONS, RESTRICTIONS AND PRECAUTIONS ON THE EPA-REGISTERED LABEL.

This bulletin contains new or supplemental instructions for use of this product which do not appear on the EPA-registered package label. Follow the instructions carefully. This labeling must be in the possession of the user at the time of pesticide application.

Read the Limitation of Warranty and Liability on the Section 3 Federal product label before buying or using THIS product. If terms are not acceptable, return the unopened package at once to Seller for full refund of purchase price paid. Otherwise, use by Buyer or any other User constitutes acceptance of the terms of the Limitation of Warranty and Liability on the Section 3 Federal product label.

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Cheminova Inc.
One Park Drive, Suite 150
P.O. Box 110566
Research Triangle Park, NC 27709
www.cheminova.com