

Nebraska Hop Weed Management

REGISTERED HERBICIDES

Application Timing	Broadleaf or Grasses	Active Ingredient	Trade Name	REI/PHI	Notes
Postemergent	Both	glyphosate (9)	Abundit Extra, Buccaneer, Buccaneer Plus, Credit 41, Credit 41 Extra, Credit Xtreme, Duramax, Envy Six Max, Gly Star Original, Gly Star Plus, Gly Star Pro, Flyfos, Glyfos X-tra, Glyphogan, Honcho Plus, Roundup PowerMAX, Roundup WeatherMAX	see label/ 14d	Apply only when green shoots, foliage or canes are not in the spray zone. Best combined with a pre-emergent early in spring for control of emerged annual and perennial weeds.
	Both	ammoniated soap of fatty acids	Finalsan Total Vegetation Killer	24h/-	Do not spray desirable plants. OMRI listed.
	Both	pelargonic acid (27)	Scythe	12h/ 24h	Apply as direct spray, prior to emergence, or as dormant or post harvest spray for burndown.
	Broadleaf	carfentrazone (14)	Aim EC	12h/7d	Apply with shield or hooded spray. Controls small broadleaf weeds, hop suckers, and lower bine foliage. Requires 19d between treatments.
	Broadleaf	2,4 D (4)	Base Camp Amine 4, Clean Amine, Drexel De-Amine 4, Radar AM, Rugged, Shredder Amine 4, Weedar 64, Weed RHAP A4D	see label	Controls most annual and perennial broadleaf weeds. Apply as directed to row middles.
	Grasses	Clethodim (1)	Agrisolutions Select 2EC, Arrow 2EC, Avatar, Avatar S2, Cleanse, Cleanse 2E, Clethodim 2EC, Dakota, Envoy Plus Herbicide, Gatlin, IVM Clethodim 2E, Select Max, Shadow, Shadow 3EC, Shadow Ultra, Tapout, Vaquero, Volunteer, Willowood Clethodim 2EC	see label	Controls annual and perennial grasses.
Pre-emergent	Broadleaf/ annual grasses	trifluralin (3)	Aceto Trifluralin 4 EC, Agrisolutions Trust, Cornbelt Trifluralin, Drexel Trifluralin 4EC, Treflan 4EC, Treflan HFP, Treflan TR-10, Trifluralin 10G, Trifluralin 4EC, Trifluralin HF, Triflurex HFP	12h/-	Soil type determines application rate - refer to label. Apply in dormancy.
	Both	flumioxazin (14)	Chateau, Redeagle, Tuscany, Warfox	12h/ 30d	Apply Jan-Mar as a 1-1.5 ft. band to dormant hops. Most broadleaves and grasses controlled. Moisture is needed to activate herbicide.
	Both	norflurazon (12)	Solicam DF	12h/ 60d	Soil type determines application rate - refer to label. 6mo waiting period for application after planting.

Notes: **Postemergent herbicides** are used to control actively growing weeds. **Pre-emergent herbicides** are applied to areas prior to weed germination. Next to some active ingredients is a number in parentheses, (#). This number is the Weed Science Society of America (WSSA) mode of action code for managing herbicide resistance. **PHI**-preharvest intervals, **REI**-restricted entry interval.

Treated Acres versus Sprayed Acres: When planning applications of any herbicide, one should refer to the label before taking any action. Generally, application rates are listed on labels as pounds, pints, or quarts per acre. Most herbicides are applied over the hop rows, otherwise known as banded applications. Calculating the correct amount for a banded applications is important for your hops. There are 43,560 square feet in one acre. In a 1 acre hop yard with 14 feet between rows, there are 3,111 feet of row ($43,560/14$). Bands are approximately 4 feet wide, resulting in 12,444 square feet or 0.28 acre of area to treat ($3,111 \times 4$). Following the label without calculating banded applications could result in much higher concentrations of herbicide being applied, and therefore causing severe damage to your hop plants.

Steps to Calculate Banded Rates¹

1. Divide total square feet of one acre by row spacing in feet to determine feet of row per acre. ($43,560/14 = 3,111$ ft)
2. Multiply the feet of row per acre by the band width in your hop yard to determine the square footage to be treated. ($3,111 \text{ ft} \times 4 \text{ ft} = 12,444 \text{ sq ft}$)
3. Divide treated area by area of one acre to calculate the percentage of one acre to treat. ($12,444/43,560 = 0.28 = 28\%$)
4. Multiply the percentage of acre to be treated by the label broadcast rate (in this example, 1 pound). $0.28 \times 1 \text{ pound} = 0.28 \text{ pounds}$
5. Multiply the percentage of acre to be treated by the recommended volume of water for an acre to determine the amount of water to use per acre. $0.28 \times 30 \text{ gallons} = 8.4 \text{ gallons}$

1. ID-462-W - Hops Production in Indiana, Integrated Pest Management Guide for Hops in Indiana 2015

Disclaimer: This list of herbicides registered for hops in Nebraska was verified through the Nebraska Department of Agriculture. While there are other products outside of this list registered for weed control of hops in other states, applying products not registered in our state may result in unsalable hops or plant damage. If unsure of a products registration, visit <http://www.kellysolutions.com/ne/pesticideindex.htm>. Remember, hops are sensitive to herbicide injury. Products such as glyphosate or 2,4-D should not touch any part of a green hop plant, as significant damage will result. Be aware of weather conditions that may be conducive to volatilization and drift.