

# Checklist for Applying Non-crop Herbicides



Understanding the risks associated with applying non-crop herbicides aids in eliminating off-target injury to desirable vegetation. Providing for proper herbicide performance through training and education results in economic, aesthetic and environmental benefits to the treatment site. The following checklist will aid applicators in developing a low-risk and high-benefit herbicide program.

## Application accuracy

- Select the proper equipment for the spray job.
- Use the proper nozzle type for accurate herbicide placement.
- Calibrate periodically for spray output accuracy.
- Use a drift control agent as recommended by product labeling.
- Use as low a pressure as practical to reduce drift.
- License and certify application personnel as necessary.
- Maintain detailed spray records of all treatments.
- Draining or flushing spray equipment near or on desirable vegetation may result in injury or loss of desirable vegetation.

## Chemical selection

- Understand the chemical properties of solubility, mobility, persistence and volatility.
- Match the vegetation to be controlled with the correct chemical, rate and timing.
- Evaluate the performance at the end of the season to consider any program upgrades needed.

## Target-area stability

- Sites disturbed by mechanical means or vehicle traffic may lead to herbicide inactivity or movement to off-target areas.
- Know the soil texture or road ballast composition as it relates to wind or water erosion potential.
- Treat asphalt or concrete surfaces only if specifically directed by the product labeling.

## Environmental conditions

- Applications made during high wind, high temperatures and low humidity may increase the potential for off-target drift.
- Be cautious of passing-vehicle wind shear, particularly from large trucks, when spraying.
- Understand local weather patterns to make a proper timing of the herbicide treatment.

- Applications made to saturated or frozen soils or just prior to heavy rainfall may increase the potential for off-target movement.
- When making herbicide applications to slopes, heavy rainfall may increase the potential for movement to nontarget areas.

## Adjacent vegetation and property

- Know the chemical sensitivity of adjacent vegetation, crops and ornamentals.
- Use caution when making treatments next to agricultural crops.
- Know the sensitivity of your site and do not use non-crop herbicides in any ornamental planting, home or park area unless so labeled.
- Be aware that tree or plant roots may extend or grow into the treatment area.

## Off-target concerns

Movement of any product during a heavy rain shower is possible. The greatest potential risk of off-target effects is during the first few weeks following application. If the first appreciable rain shower is unusually heavy, the product may dissolve in the water and be carried to the lowest point in or near the treatment area.

## Key factors impacting a clean, straight treatment line

- Intensity and amount of rain following application.
- Steepness of slope.
- Soil properties: heavy, light and aggregate type.
- Product rate.
- Product performance properties.

## For more information

Contact your local DuPont Vegetation Management Service Center or DuPont representative. And visit us on the Web at [vm.dupont.com](http://vm.dupont.com).

## 1996 Total Vegetation Control and Product Movement Evaluation — Brookings County, S.D.

Treatment 3/29/1996	Rate/A	Off-target movement (ft) 8/12/96	% Grass suppress 8/12/96	Bareground control (%) 8/12/96
Check	–	0	0	0
Arsenal	3 pt	2	95	30
Arsenal	6 pt	10	95	90
Casoron	12 lbs	0	30	0
Casoron	36 lbs	0	50	0
DuPont™ Hyvar® X	5 lbs	2	85	75
Hyvar® X	15 lbs	10	95	95
DuPont™ Karmex® DF	5 lbs	0	65	10
Karmex® DF	15 lbs	1	80	35
DuPont™ Krovar® I DF	6 lbs	2	65	85
Krovar® I DF	18 lbs	2	85	95
DuPont™ Oust®	4 oz	0	65	0
Oust®	8 oz	2	95	10
Pramitol	5 gal	0	75	70
Pramitol	10 gal	4	95	90
Spike	4.75 lbs	15	98	98
Spike	9.5 lbs	15	98	98
Surflan	6 qt	0	25	10

COMMENTS: Plots established along asphalt road shoulder; slight slope. Perennial grass vegetation. Foxtail emerged at the low rate of Hyvar® X, Krovar® I DF, and both Pramitol rates. Higher rates tended to move farther laterally. Higher rates of Arsenal, Hyvar® X, Pramitol and all rates of Spike had excessive slope movement.

SOURCE: Plant Science Department. South Dakota State University, Brookings, S.D.

*This reference guide is not intended as a substitute for the product label for the product(s) referenced herein. Product labels for the above product(s) contain important precautions, directions for use and product warranty and liability limitations that must be read before using the product. Applicators must be in possession of the product label(s) at the time of application. Always read and follow all label directions and precautions for use when using any pesticide alone or in tank mix combinations.*

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