

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

March 17, 2021

Craig D. Kleppe, Ph.D. Product Registration Manager BASF Corporation 26 Davis Drive, PO Box 13528 Research Triangle Park NC 27709

Subject: PRIA Label Amendment – Adding new nonfood use

Product Name: Finale Herbicide EPA Registration Number: 7969-444 Application Date: 11/08/2019,03/16/2021 Decision Number: 557577,572246

Dear Mr. Kleppe:

The application referred to above, submitted under the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable under FIFRA sec 3 (c)(5). You must submit and/or cite all data required for registration/registration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Page 2 of 2 EPA Reg. No. 7969-444 Decision No. 557577,572246

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Manjula Unnikrishnan by phone at 703-347-8520, or via email at unnikrishnan.manjula@epa.gov.

Sincerely,

Rachel Holloman, Chief Fungicide Herbicide Branch, Registration Division (7505P)

Rachel C. Holloman

Enclosure



Herbicide

ACCEPTED

3/17/2021

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under

EPA Reg. No. 7969-444

For nonselective postemergence weed control on golf courses, and in landscaping, ornamentals, tree production, turfgrass, and vegetation management sites

Active Ingredient:

 glufosinate-ammonium*
 11.33%***

 Other Ingredients:
 _88.67%

 Total:
 100.00%

EPA Reg. No. 7969-444

EPA Est. No.

WARNING/AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See full label for complete First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty, and state-specific crop and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

Net Contents:



^{*} CAS Number 77182-82-2

^{**} Equivalent to 1.00 pound of active ingredient per U.S. gallon, formulated as a soluble concentrate

FIRST AID		
If in eyes	 Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes; then continue rinsing. Call a poison control center or doctor for treatment advice. 	
If swallowed	 Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to by a poison control center or doctor. DO NOT give anything by mouth to an unconscious person. 	
If on skin	 Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice. 	
If inhaled	 Move person to fresh air. If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably mouth to mouth if possible. Call a poison control center or doctor for further treatment advice. 	
	LIOTI INF NUMBER	

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).

NOTE TO PHYSICIAN: If this product is ingested, endotracheal intubation and gastric lavage must be performed as soon as possible, followed by charcoal and sodium sulfate administration. Additionally, call 1-800-832-HELP (4357) immediately for further information.

Precautionary Statements

Hazards to Humans and Domestic Animals

WARNING. Causes substantial but temporary eye injury. Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Coveralls worn over long-sleeved shirt and long pants
- Chemical-resistant gloves
- Shoes plus socks
- Protective eyewear (goggles, face shield, or safety glasses)

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users must:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product.
 Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

DO NOT apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwater or rinsate. Glufosinate-ammonium and its degradates have properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

POLLINATOR ADVISORY. This product contains a herbicide. Follow all label directions and precautions to minimize potential off-target exposure in order to prevent effects to nontarget plants adjacent to the treated site that may serve as habitat or forage for pollinators.

Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This label must be in the possession of the user at time of application.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Finale® herbicide is not for sale, distribution, or use in Nassau and Suffolk counties in New York State.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses; and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **12 hours**.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, including plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves
- Shoes plus socks
- Protective eyewear (goggles, face shield, or safety glasses)

NONAGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. The applications for trimming and edging, industrial, recreational and public areas, and farmsteads are not within the scope of the WPS.

DO NOT enter treated areas without protective clothing until sprays have dried.

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

DO NOT use or store near heat or open flame. Store in original container in a well-ventilated area separately from fertilizer, feed, or foodstuffs. Avoid crosscontamination with other pesticides.

Pesticide Disposal

Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Handling

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity ≤ 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank and continue to drain for 10 seconds after flow begins to drip. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

In Case of Emergency

In case of large-scale spill of this product, call:

• CHEMTREC 1-800-424-9300

BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

Steps to take if material is released or spilled:

- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing, and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

Use Sites

Finale® herbicide may be applied for control of emerged weeds to the following use sites; see the **Specific Use Site Instructions** section for details:

- Golf courses
- Native grass areas
- Ornamental production nurseries (including greenhouses, lath houses, shade houses)
- Turfgrass
- Conifer and hardwood tree production areas, nurseries and plantations, including Christmas trees
- Vegetation management in noncropland areas

Product Information

Finale is a broad-spectrum, postemergence herbicide that contains the active ingredient glufosinate-ammonium.

Finale is a water-soluble concentrate for application as a foliar spray to control annual and perennial emerged broadleaves, grasses, and sedges. Finale also controls many terrestrial and riparian invasive and noxious weeds and controls or suppresses certain woody species (brush, trees, and vines) including conifers. Finale is nonselective and injures or kills green vegetation contacted by the spray (exception, non-susceptible turfgrass species).

Mode of Action

Glufosinate-ammonium, the active ingredient in **Finale**, is a **Group 10** herbicide and a potent inhibitor of glutamine synthetase.

Herbicide Resistance Management

Any weed population may contain or develop plants naturally resistant to this product. Weed species with resistant biotypes may eventually dominate the population if this herbicide is used repeatedly in the same area or in successive years as the primary method of control for the targeted species. Appropriate resistance-management strategies must be followed.

To delay herbicide resistance consider:

- Avoiding the consecutive use of **Finale**, or other glufosinate-containing products, on the same weed species over time.
- Using tank mixes or premixes with herbicides from different target-site-of-action groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank mix or prepack rate on the weed(s) of concern.

- Basing herbicide use on a comprehensive Integrated Pest Management (IPM) program including cultural and mechanical weed control methods.
- Monitoring treated weed populations for loss of field efficacy and control of escapes with effective alternative herbicides or mechanical methods.
- Identifying weeds present in the area through scouting and area history and understand their biology. The weed control program needs to consider all of the weeds present.
- Scouting areas prior to application to identify the weeds present and their growth stage to determine if the intended application will be effective.
- Scouting areas after application to verify the treatment was effective.
- Suspected herbicide resistant weeds may be identified by the following indicators:
 - 1. Failure to control a species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
 - 2. A spreading patch of noncontrolled plants of a particular species; and
- 3. Surviving plants mixed with controlled individuals of the same species
- If resistance is suspected, treating escapes with a herbicide with a different MOA and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.
- Contacting your local extension specialist or certified crop advisor for any additional pesticide resistancemanagement and/or IPM guidance for certain areas or specific weeds.
- Reporting any incidence of nonperformance of this product against a particular weed species or suspected weed resistance to your local extension specialist, certified crop advisor, BASF representative, or your **Finale** supplier.

Application Instructions

- Apply Finale to foliage of emerged weeds and woody (brush) species.
- Apply **Finale** in a single application or sequential applications.
- For best results, apply **Finale** under warm temperatures, high humidity, and bright sunlight.
- Weed control may be reduced when application is made when heavy dew, fog, and mist/rain are present, or to weeds under stress due to environmental conditions including drought, cool temperatures (below 50°F), or extended periods of cloudiness.
- Apply a higher rate of **Finale** for plant sizes listed (see Use Rates table) when vegetation cover is dense or when weeds are growing under stressed conditions or cool temperatures (below 50°F).
- **Finale** is rainfast between 30 minutes and 4 hours after application depending on weed species, application rate, and environmental conditions.
- Under active growing conditions, symptoms of Finale application on treated plant material occur within 2 to 4 days after application.

- Regrowth may occur under certain conditions, including: weed growth stage at application, using less than the specified label rate, or environmental conditions.
- Delay seeding of turfgrasses for 7 days following Finale® herbicide treatment.
- Plants may be safely transplanted into Finale-treated areas after spray has dried.
- Finale may be applied by air or ground.

Application Methods and Equipment

Use and configure application equipment for spray volume, accurate and uniform distribution of spray droplets over the treated area, and to avoid spray drift to nontarget areas. Maintain continuous agitation during spraying with mechanical or bypass agitation. Avoid overlaps that will increase rates above use rates specified in this label.

For best results, apply **Finale** in spray volumes that ensure uniform and thorough coverage of target vegetation.

Thoroughly clean sprayer after each use.

Ground Application

- **Broadcast, Banded or Boom Spray.** Apply **Finale** at a minimum of 15 gallons of water per acre with spray pressure no more than is required for thorough target plant coverage.
- Spot or Directed Spray. Apply Finale with backpack, pump, or hydraulic sprayer to weeds or other undesirable foliage on a spray-to-wet basis. Ensure uniform and thorough coverage, but avoid applying beyond runoff.
- Trimming and Edging. When spraying Finale adjacent to desirable plants, use a shield made of cardboard, plywood, or sheet metal to help prevent spray from contacting foliage of desirable plants.
- Side Trimming. Direct the Finale spray solution to thoroughly cover (spray-to-wet) only the portion of the plant to be controlled.
- Broadcast Spray for Brush Control. Apply Finale
 with ground equipment at spray volume depending on
 height and density of the brush (see following
 paragraphs).

Low volume brush application: Apply 20 to 50 gallons per acre when brush height is less than 6 feet and brush cover is less than 60% of the area.

High volume brush application: Apply 50 to 100 gallons per acre when spraying medium-to-high density vegetation.

• Individual Plant Treatments (IPT). Apply Finale utilizing a selective foliar application method that targets individual plants (e.g., herbaceous or woody weed species). The application spray volume needs to be adjusted to account for the height and density of target vegetation to ensure thorough and uniform coverage of the target plant. Higher spray volumes may be necessary for taller/denser vegetation. Make IPT using backpack or hydraulic handgun equipment. Selectively wet all foliage on the target plant, starting at top of plant and covering all sides, but **DO NOT** drench target vegetation causing

spray solution to run off. For best results, make IPT with an additive (see the **Tank Mixing Other Products and Additives** section for details).

Aerial Application

- Broadcast Spray. Apply Finale at a minimum of 15 gallons of water per acre. The spray volume per acre is determined by the equipment to ensure thorough spray coverage of target vegetation.
- Helicopter Application Only. Apply Finale at a minimum of 15 gallons of water per acre. The spray volume per acre is determined by the height and density of the target vegetation and equipment used. A drift control device or drift control system may be used when applying to areas near desirable (susceptible) plants.

Mandatory Spray Drift Mitigation

Aerial Applications

- **DO NOT** release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- The spray boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
- Applicators must select nozzles and pressure that deliver medium to coarse droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (ASABE §572).
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- **DO NOT** apply when wind speed exceeds 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Ground Applications

- Apply with the nozzle height recommended by the manufacturer, but no more than 4 feet above the ground or vegetative canopy, unless necessitated by application equipment.
- Applicators must select nozzles and pressure that deliver medium to coarse droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (ASABE §572).
- DO NOT apply when wind speed exceeds 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Spray Drift Advisory

The applicator is responsible for avoiding off-site spray drift. Be aware of nearby nontarget sites and environmental conditions.

Importance of Droplet Size

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if application is made improperly or under unfavorable environmental conditions.

Controlling Droplet Size - Ground Boom

Volume. Increasing the spray volume so larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.

Pressure. Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.

Spray Nozzle. Use a spray nozzle designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size - Aircraft

Adjust Nozzles. Follow nozzle manufacturers' recommendations for setting up nozzles. Generally, to reduce fine droplets, orient nozzles parallel with the airflow in flight.

Boom Height - Ground Boom

Use the lowest boom height compatible with the spray nozzles that will provide thorough and uniform coverage. The boom must remain level with the vegetation canopy and have minimal bounce.

Release Height - Aircraft

Higher release heights increase the potential for spray drift.

Temperature and Humidity

When applying in hot and dry conditions, use larger droplets to reduce effects of evaporation.

Temperature Inversion

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light-to-no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid application during temperature inversions.

Wind

Drift potential generally increases with wind speed. Avoid applications during gusty wind conditions. Applicators must be familiar with local wind patterns and terrain that could affect spray drift.

Shielded Sprayers

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that shields are not interfering with uniform deposition of spray on the target area.

Use Restrictions for All Labeled Uses

- Grazing of vegetation treated with **Finale® herbicide** is prohibited for one year after treatment.
- **DO NOT** apply directly or allow drift to contact desirable green tissue, or green, thin, or uncalloused bark of desirable vegetation.
- **DO NOT** apply this product through any type of irrigation system.

Use Site	Application Method	Maximum Single Application Rate	Maximum Annual Application Rate	Maximum Number of Application Per Year	Minimum Retreatment Interval (days)
Golf Course Maintenance and Landscaping; Native Grass Areas;	Broadcast	6 qts/A (1.5 lbs ai/A)			
Ornamentals; Commercial, Residential, and Industrial Landscaping; Conifer and Hardwood Tree Production Areas, Nurseries, and Plantations, including Christma Trees; Vegetation Control and Management in Noncropland Areas	Spot	8 fl ozs per gallon of spray (0.063 lb ai)	18 qts/A (4.5 lbs ai/A)	3*	5
	Broadcast	6 qts/A (1.5 lbs ai/A)	19 ato/A		
Dormant Bermudagrass	Spot	8 fl ozs per gallon of spray (0.063 lb ai) 18 qts/A (4.5 lbs ai/A) 3*	3*	5	
Lawn or Turf Renovation and/or	Broadcast	4 qts/A (1.0 lb ai/A)	16 etc/A		
Replacement (including residential lawns)	Spot	1.47 fl ozs per gallon of spray (0.012 lb ai)	16 qts/A (4.0 lbs ai/A)	4*	45

(continued)

Use Site	Application Method	Maximum Single Application Rate	Maximum Annual Application Rate	Maximum Number of Application Per Year	Minimum Retreatment Interval (days)
Selective Weed Control in	Broadcast	4 qts/A (1.0 lb ai/A)	18 gts/A	4* (6 when	
Nonsusceptible Turf (including residential lawns)	Spot	1.47 fl ozs per gallon of spray (0.012 lb ai)	(4.5 lbs ai)	using reduced rates)	45

^{*}When using the maximum single application rate (excluding spot treatments).

Tank Mixing Other Products and Additives

It is the pesticide user's responsibility to ensure that all products in the mixtures are registered for the intended use. Read and follow the applicable restrictions and precautions and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Finale® herbicide may be tank mixed or applied sequentially with other herbicide products registered for use in any use site found in this label. Refer to the tank mix product labels to confirm that the respective tank mix products are registered for the intended use. Read and follow the specific tank mixing instructions on this label and respective product labels.

Finale may be tank mixed with one or more preemergence herbicide(s) for residual control of emerging underground reproductive plant parts or weed seeds, as well as vegetative growth from previously treated plants.

Additives

Addition of nonionic antifoaming agent may reduce foaming, especially when using soft water.

Spray drift control additives may be used; read and follow all directions and precautions as specified on the drift control additive label.

Ammonium sulfate (AMS), methylated seed oil (MSO), or nonionic surfactant (NIS) may be added for foliar applications.

For optimum burndown activity with **Finale** and to achieve consistent weed control in postemergence use patterns, an adjuvant system may be used that includes any of the following:

Additive/Adjuvant	Rate	
AMS (spray grade)	2 to 4 lbs/A	
plus one of	the following	
MSO	1% volume/volume (v/v)	
or		
NIS	0.25% v/v	

Compatibility Test for Tank Mixing Other Products and Additives

Before tank mixing components, always perform a compatibility jar test.

- 1. In a clear glass jar, add components in the order listed.
- 2. Add the appropriate amount of herbicide in the following order: (a) dry flowable, (b) wettable powder, (c) aqueous suspensions, (d) flowables, (e) liquids, and (f) solutions and emulsifiable or liquid concentrates. Shake or gently stir jar after each addition to thoroughly mix.
- 3. After all components have been added, cap jar, tighten lid, and invert ten cycles to mix.
- 4. Let solution in jar stand for 15 minutes.
- 5. Evaluate the solution for uniformity and stability. Look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. If the tank mix partners are not compatible, DO NOT use the mixture in any spray solution that could clog spray nozzles.

Mixing Order

Make sure each component is thoroughly mixed and suspended before adding tank mix partners. Maintain constant agitation during mixing and application until spraying is completed.

- 1. Start with calibrated and clean equipment.
- 2. Fill the spray tank half full with water.
- 3. Start agitation.
- 4. If mixing with a flowable/wettable powder tank mix partner, prepare a slurry of the appropriate amount of the product in a small amount of water. Add the slurry to the spray tank.
- 5. Add ammonium sulfate (AMS) to the spray tank if needed.
- 6. If mixing with a liquid tank mix partner, add the liquid mix partner next.
- Complete filling the spray tank with water before adding Finale because foaming may occur.
- 8. Add **Finale** when tank is full and continue agitation.
- 9. If foaming occurs, use a silicone-based **antifoaming agent**.

If the spray mixture is allowed to settle for any period of time, thorough agitation is required to resuspend the mixture before spraying is resumed. Maintain constant agitation while spraying.

Use Rates

Weed Size and Growth Stage	Broadcast Rate of Finale® herbicide (quarts/A)	Spot Spray Rate of Finale (% solution)
Weeds < 3 inches in diameter or height	2 to 3	1 to 1.5
Weeds < 6 inches in diameter or height, pre-tiller grasses	3 to 4	1.5 to 2.5
Weeds ≥ 6 inches in diameter or height, tillered grasses	4 to 6	2.5 to 3
Weeds > 8 inches in diameter or height	6	3
Brush	2 to 6	1 to 3
Volunteer conifer	4	2.5

Rate of Finale (quarts/A)	Glufosinate Rate Equivalency (lbs ai/A)
2	0.5
3	0.75
4	1.0
6	1.5
16	4.0
18	4.5

Spot Spray Dilution. Amount of **Finale** added to water to make 1 to 100 gallons of spot spray solution at dosages of 1% to 6% solution.

Desimal	Volume of Spot Spray Solution					
Desired % Solution	1 gallon	10 gallons	25 gallons	50 gallons	100 gallons	
(v/v)	Amount of Finale					
1.0%	1.5	13	1	2	1	
	fl ozs	fl ozs	quart	quarts	gallon	
1.5%	2	20	1.5	3	1.5	
	fl ozs	fl ozs	quarts	quarts	gallons	
2.0%	2.5	25	2	4	2	
	fl ozs	fl ozs	quarts	quarts	gallons	
2.5%	3	36	2.5	5	2.5	
	fl ozs	fl ozs	quarts	quarts	gallons	
3%	4	40	3	6	3	
	fl ozs	fl ozs	quarts	quarts	gallons	
6%*	8	80	6	12	6	
	flozs	fl ozs	quarts	quarts	gallons	

^{*} Spot treatment rate for Individual Plant Treatment applications only.

Weeds Controlled

For postemergence control of emerged weeds listed in the following tables, apply **Finale** at the rates for broadcast or spot applications based on weed size and growth stage.

Broadleaf Weeds Controlled

Common Name	Scientific Name	
Bindweed	Convolvulus spp.	
Buckwheat, wild	Polygonum convolvulus	
Buffalobur	Solanum rostratum	
Burdock, common	Arctium minus	
Chickweed, common	Stellaria media	
Clover, white	Trifolium repens	
Cocklebur, common	Xanthium strumarium	
Dandelion, common	Taraxacum officinale	
Dock, curly	Rumex crispus	
Dogbane, hemp	Apocynum cannabinum	
Filaree, redstem	Erodium cicutarium	
Fleabane	Erigeron spp.	
Goldenrod	Solidago spp.	
Gromwell, field or corn	Buglossoides arvense	
Henbit	Lamium amplexicaule	
Horsetail, field	Equisetum arvense	
Jimsonweed	Datura stramonium	
Kochia	Kochia scoparia	
Lambsquarters, common	Chenopodium spp.	
Lettuce, prickly	Lactuca serriola	
Mallow, little (cheeseweed)	Malva parviflora	
Marestail (horseweed)	Conyza canadensis	
Mugwort	Artemisia vulgaris	
Mullein	Verbascum spp.	
Mustard, tansy (flixweed)	Descurainia sophia	
Mustard, wild	Sinapis arvensis	
Nettle	Urtica spp.	
Nightshade	Solanum spp.	
Onion, wild	Allium canadense	
Pennycress, field	Thlaspi arvense	
Pigweed	Amaranthus spp.	
Plantain	Plantago spp.	
Pokeweed, common	Phytolacca americana	
Purslane, common	Portulaca oleracea	
Ragweed	Ambrosia spp.	
Rocket, London	Sisymbrium irio	
Rocket, yellow	Barbarea vulgaris	
Rose, wild	Rosa spp.	
Shepherd's purse	Capsella bursa-pastoris	

8

Broadleaf Weeds Controlled (continued)

Common Name	Scientific Name
Smartweed, Pennsylvania	Polygonum pensylvanicum
Sowthistle, annual	Sonchus oleraceus
Spurge, leafy	Euphorbia esula
Thistle, Canada	Cirsium arvense
Thistle, musk	Carduus nutans
Thistle, Russian	Salsola iberica
Turnip, wild (wild radish)	Raphanus raphanistrum
Velvetleaf	Abutilon theophrasti
Vervain	Verbena spp.
Virginia copperleaf	Acalypha virginica
White heath aster	Erigeron spp.
Woodsorrel	Oxalis spp.

Grass Weeds and Sedges Controlled

Common Name	Scientific Name
Bahiagrass	Paspalum notatum
Barley	Hordeum spp.
Barnyardgrass	Echinochloa crus-galli
Bermudagrass	Cynodon dactylon
Bluegrass, annual	Poa annua
Bluegrass, Kentucky	Poa pratensis
Brome, downy	Bromus tectorum
Brome, smooth	Bromus inermis
Carpetgrass	Axonopus affinis
Crabgrass	Digitaria spp.
Cupgrass, woolly	Eriochloa acuminata
Dallisgrass	Paspalum dilatatum
Fescue	Festuca spp.
Foxtail, giant	Setaria faberi
Foxtail, green	Setaria viridis
Foxtail, yellow	Setaria pumila
Goosegrass	Eleusine indica
Guineagrass	Urochloa maxima
Johnsongrass (rhizome)	Sorghum halepense
Lovegrass	Eragrostis spp.
Nutsedge	Cyperus spp.
Panicum, fall	Panicum dichotomiflorum
Para grass	Urochloa mutica
Quackgrass	Elymus repens
Ryegrass	Lolium spp.
Sandbur	Cenchrus spp.
Shattercane	Sorghum bicolor spp. arundinaceum

Grass Weeds and Sedges Controlled (continued)

Common Name	Scientific Name	
Signalgrass	Urochloa spp.	
Sprangletop	Leptochloa spp.	
Stinkgrass	Eragrostis cilianensis	
Torpedograss	Panicum repens	
Vaseygrass	Paspalum urvillei	
Wheat, volunteer	Triticum aestivum	
Wild oat	Avena fatua	
Windgrass, common	Apera spica-venti	

Brush^{1,2} Species Suppressed or Controlled

Common Name	Scientific Name
Blackberry	Rubus spp.
Cedar, western red ²	Thuja plicata
Deerbrush	Ceanothus integerrimus
Douglas fir ²	Abies spp.
Elm ²	Ulmus spp.
Gallberry	llex spp.
Hazel	Corylus spp.
Honeysuckle	Lonicera spp.
Huckleberry	Gaylussacia spp.; Vaccinium spp.
Maple	Acer spp.
Multiflora rose	Rosa multiflora
Oak ²	Quercus spp.
Pine ²	Pinus spp.
Poison ivy	Toxicodendron radicans
Poison oak	Toxicodendron toxicarium
Roundleaf greenbrier	Smilax rotundifolia
Salmonberry	Rubus spectabilis
Sumac	Rhus typhina
Sweetgum	Liquidambar styraciflua
Thimbleberry	Rubus parviflorus
Trumpet creeper	Campsis radicans
Vine maple	Acer circinatum

¹ Not for use on brush in California.

² Apply higher rates of Finale® herbicide:

- for hard-to-control woody plants including elm, certain oaks, or when plant leaf surfaces have hardened off; or tank mix **Finale** with other herbicides registered for control of these woody plants.
- when conditions are not optimum for thorough spray coverage, including when weed growth is heavy or dense.

² Apply lower rates of Finale when:

- target species is conifer.
- vegetation growth conditions allow for uniform spray coverage.

Specific Use Site Instructions

Golf Course Maintenance and Landscaping

Finale® herbicide may be used for trimming (including side) and edging on golf courses along cart paths; around tee box signs, ball washers, light posts, sign posts, and sand traps; and in landscape areas including around individual trees and shrubs, landscape beds, mulched areas, clubhouses, buildings, foundations, fences, driveways, paths, parking areas, and sidewalks. When spraying in areas adjacent to desirable plants, use a shield made of cardboard, plywood, or sheet metal to help prevent spray from contacting foliage of desirable plants.

Finale may be used to establish and maintain native grass and natural areas (areas as specified below in **Native**Grass Areas section) on golf courses. Apply Finale as a postemergence broadcast or spot application for nonselective broadleaf weed control in native grass areas and unimproved turf.

Native Grass Areas

Finale may be used to establish and maintain native grass and natural areas including wildlife management areas, wildlife openings, wildlife food plots, wildlife habitats, habitat restoration areas, and conservation reserve program (CRP) areas. [Optional text: Not for use in California.]

Apply **Finale** only as a spot or IPT application for selective weed control in native grass areas and unimproved turf.

Ornamentals

Apply **Finale** for the control of undesirable vegetation in ornamental production during bed preparation before planting; around and within shade houses, lath houses, and/or greenhouses; as a directed spray around containers and field-grown established ornamentals and ornamental gardens; and for nursery maintenance.

Finale may be applied around nonbearing fruit and nut trees, vines, brambles, and bushberries grown in commercial ornamental production nurseries. Immature and/or inedible fruits may appear and are not intended for harvest or consumption.

Planting Bed Preparation Application. Apply **Finale** as a broadcast application targeting emerged weeds during preplant bed preparation for new ornamental plantings and production. Ornamentals may be planted into the treated area after the restricted-entry interval (REI) of 12 hours.

Directed Spray Application. Apply Finale

postemergence-directed as a broadcast, banded, or spot spray application to control emerged weeds in/around field-grown woody plants and trees, between and/or around containers, and in/around ornamental gardens.

DO NOT make an over-the-top application to ornamentals or severe injury will occur.

DO NOT apply directly to or allow spray drift to contact desirable green tissue or green, thin, or uncalloused bark of desirable vegetation or severe injury will occur.

Greenhouse, Lath House, and Shade House Applications. Apply Finale to control emerged weeds in greenhouses, lath houses, and shade houses. Air circulation fans must be turned off during application. Apply Finale as a directed spray, using large droplet and low-pressure type nozzles. DO NOT drift or directly contact desirable vegetation, especially edible crops.

Nursery Maintenance. Apply **Finale** for nursery maintenance in areas where ornamental plants are not currently being grown, including gravel or stone pathways, roads within the nursery, dry irrigation ditches and/or ditchbanks, unused gravel pads within nursery blocks, or nursery pads not currently in production, and around greenhouses, lath houses, and shade houses.

Side Trimming. Direct the **Finale** spray solution to thoroughly cover (spray-to-wet) only the portion of the plant to be controlled.

Commercial, Residential, and Industrial Landscaping

Finale may be used for trimming (including side) and edging commercial and/or residential landscape areas including around individual trees and shrubs, landscape beds, mulched areas, home foundations, garages, buildings, fences, driveways, parking areas, sidewalks, yard ornaments, mail boxes, light posts, walking paths, patios, and industrial landscapes and landscaped highway medians, interchanges, embankments, and buffer areas where perennial plants are established. When spraying in areas adjacent to desirable plants, use a shield made of cardboard, plywood, or sheet metal to help prevent spray from contacting foliage of desirable plants.

Finale may be applied around nonbearing fruit and nut trees, vines, and bushberries grown in commercial, residential, or industrial areas. Immature and/or inedible fruits may appear and are not intended for harvest or consumption.

Apply **Finale** postemergence-directed as a broadcast, banded, or spot spray application around established trees and/or woody shrubs while targeting emerged weeds.

DO NOT make an over-the-top application to any desirable landscape vegetation or severe injury will occur.

DO NOT apply directly or allow spray drift to contact desirable green tissue or green, thin, or uncalloused bark of desirable vegetation or severe injury will occur.

Turfgrass

Finale® herbicide may be applied in the turfgrass use sites (dormant Bermudagrass, lawn or turf renovation and/or replacement, selective weed control) in any maintained turf including commercial, industrial, residential lawn, athletic, recreational, golf, and sod farm settings.

Dormant Bermudagrass - Apply Finale to control winter annual weeds in well-established dormant hybrid or common Bermudagrass grown on athletic fields, home lawns, golf courses, or in unimproved, dormant roadside Bermudagrass turf. Apply only when Bermudagrass turf is fully dormant and before spring greenup or severe turfgrass injury or delayed greenup may occur. For best results, apply Finale as a broadcast spray after most weeds have germinated and are in an early growth stage. Applications of **Finale** may also be made to suppress or control undesirable biennial or perennial weeds. Avoid high volume and spot applications where spray volume exceeds 80 gallons per acre or injury or delayed greenup may occur. Apply Finale in a single application or sequentially if follow-up applications are necessary. Apply up to three times per year but **DO NOT** apply cumulatively more than 18 quarts of **Finale** per acre per year for this use.

Lawn or Turf Renovation and/or Replacement (including residential lawns) - Apply Finale as a broadcast spray at 4 quarts per acre or as a spot spray at 1.47 fl ozs per gallon of water for each 500 sq feet (equivalent to 1.0 lb ai/A) to remove any undesired lawn or turfgrass and to kill any existing broadleaf and grass weeds. For best results, apply in the spring or fall, when daytime temperatures are at least 60° F. If the lawn or turf is dry, water every other day for a week before applying **Finale**. **DO NOT** mow for 7 days before or after herbicide application. If necessary for more thorough renovation, re-apply Finale at no less than 45-day intervals. Make up to 4 applications per year for renovation but **DO NOT** apply cumulatively more than 16 quarts of Finale per acre per year for this use. For removal or renovation of wellestablished turfgrass areas, apply Finale with a compatible tank mix partner for more thorough grass control (grass herbicides for example, glyphosate, clethodim, or fluazifop).

Selective Weed Control in Non-susceptible Turf (including residential lawns) - Apply Finale at 2 to 4 quarts per acre as postemergence over-the-top broadcast spray or as spot spray at 1.47 fl ozs per gallon of water for each 500 square feet (equivalent to 1.0 lb ai/A) to non-susceptible turfgrass species and/or cultivars to remove any annual or perennial weeds infesting the turf. If regrowth of treated weeds is observed, re-apply Finale at no less than 45-day intervals to achieve the desired weed control results. Make up to 6 applications per year for selective weed control, but DO NOT apply cumulatively more than 18 quarts of Finale per acre per year for this use.

Conifer and Hardwood Tree Production Areas, Nurseries, and Plantations, including Christmas Trees

Apply **Finale** to control volunteer conifers and other undesirable plants during site preparation operations before planting and establishment of conifer and hardwood tree productions areas, nurseries, and plantations, including Christmas trees; or as an understory application below the tree canopy of established conifers and hardwoods.

DO NOT apply **Finale** as an over-the-top broadcast spray to desirable tree plantings (including Christmas trees) or severe injury will occur.

DO NOT apply directly to or allow spray drift to contact desirable green tissue or green, thin, or uncalloused bark of desirable trees, including Christmas trees, or severe injury will occur.

Site Preparation Application. Apply **Finale** as a broadcast application during preplant site preparation for control of volunteer conifers and other undesirable plants, and for enhanced brownout with other site-preparation tank mixes. Seedling trees may be planted into the treated area after the restricted-entry interval (REI) of 12 hours.

Volunteer Conifer Control. For best control of volunteer conifer, apply **Finale** as a foliar application in the spring, summer, and early fall when volunteer conifer seedlings are actively growing. Mid-to-late fall applications to volunteer conifer that are slowing their growth may not provide consistent control.

Understory Application in Established Plantations.

Apply **Finale** postemergence-directed as a broadcast, banded, or spot spray application below the canopy of established conifer or hardwood plantings for control of targeted emerged weeds and/or other undesirable vegetation.

Directed Spray Application in Christmas Tree Plantations. Apply **Finale** postemergence-directed as a broadcast, banded, or spot spray application at the base of or around trees and/or in-between rows when targeting emerged weeds.

Vegetation Control and Management in Noncropland Areas

Apply **Finale** for nonselective weed and/or brush control in and/or around to the following uncultivated noncropland areas where vegetation control and/or management is needed to maintain the site(s):

Airports, airfields, terminals
Alleys
Athletic fields
Bareground areas
Barns
Barrier strips
Beaches (not for use in California)
Campgrounds

Canals (dry)

Cemeteries

Commercial sites including retail centers, strip malls, shopping malls, office buildings, plants

Construction sites

Ditchbanks

Ditches (dry)

Drive-in theaters

Educational facilities

Farmstead and ranch areas (barnyards, buildings and outbuildings, driveways, lanes, facilities, farmyards,

foundations, machinery or implement yards, windbreaks, shelterbelts, uncropped areas, fallow areas, runoff areas)

Fences, fencelines, boarder fencing, fence rows

Fire breaks, fire rehabilitation areas

Fuel storage areas

Government and military installations including bases, airports, ranges (all types)

Grain facilities

Gravel yards, pits

Hardscapes

Industrial sites, plants, and areas

Landfill sites

Livestock facilities

Lumberyards, storage yards

Manufacturing plants/sites

Mines (all types) and mine reclamation areas

Municipal sites

Natural areas including parks (national, state, county, city)

Nuclear plant sites

Office buildings

Parking lots/areas/lanes

Pathways

Paved areas

Pipelines

Power plants/stations (including nuclear plant sites)

Prairies

Prisons and correctional facilities

Private and public managed lands including Bureau of Land Management grounds, national parks and forests, public managed grounds and areas

Pumping stations or installations

Railroads, rail yards, rail crossings, rail lines of sight, rail rights-of-way

Recreational areas and open spaces including campgrounds, parks, restoration areas, RV camping/parking areas, hunting grounds, sports areas, off-road transportation paths/trails, natural areas, tennis courts

Refineries

Resorts

Roadways/roadsides/highways including interstate highways (federal, state, city and county), expressways, tollways, access roads, entrance/exit ramps, aprons, medians, guardrails, rest areas, rights-of-way

Roof-top plantings

Schools

Sewage disposal areas

Sidewalks

Sod farms

Solar farms

Sports and motorsports complexes

Storage shed sites

Tank farms (chemical, industrial, petroleum, water)

Trails and trailheads, hiking paths

Transected grazed areas (only when using IPT as described following)

Transitional areas between upland and lowland sites (when dry)

Utility buildings, plant sites, substations

Utility rights-of-way (electrical, pipeline, telephone)

Vacant lots

Walkways

Warehouses

Waste disposal sites, wastelands

Water towers

Wayside structures

Wetlands (seasonally dry with intermittingly flooded low lying areas including flood plains, deltas, marshes, swamps, bogs but not applied to standing water) Wildlife areas (management, opening, habitats) Wind farms, wind turbine stations

Apply **Finale®** herbicide as a broadcast or spot spray application for control of herbaceous and woody weed species. Make foliar applications in the spring, summer, and early fall when undesirable vegetation is actively growing. Mid-to-late fall applications to vegetation that is slowing growth may not provide consistent control.

Individual Plant Treatments (IPT) in Transected Grazed Areas. Apply Finale only as an IPT for vegetation management in noncropland sites that transect areas grazed by livestock. Target only individual undesirable weedy herbaceous and woody plant (brush) species. Apply Finale at rates of 2% to 6% volume/volume. Finale can be tank mixed with other herbicides registered for control of the target weed. DO NOT apply as a broadcast spray on sites that transect grazed areas. There are no grazing restrictions where Finale is applied as an IPT to treat undesirable plants.

Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

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