

Specimen Label

HALAUXIFEN-METHYL	GROUP	4	HERBICIDE
FLORASULAM	GROUP	2	HERBICIDE



Quelex[®]

with Arylex[™] active

HERBICIDE

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For preplant burndown and postemergence control of annual broadleaf weeds in wheat (including durum), barley, and triticale.

Not for sale, distribution, or use in Nassau and Suffolk counties in New York State

Active Ingredient:

halauxifen-methyl: 2-pyridinecarboxylic acid, 4-amino-3-chloro-6-(4-chloro-2-fluoro-3-methoxyphenyl)-, methyl ester.....	10.4%
florasulam: N-(2,6-difluorophenyl)-8-fluoro-5-methoxy[1,2,4]triazolo[1,5-c]pyrimidine-2-sulfonamide.....	10.0%
Other Ingredients	79.6%
Total	100.0%

Acid Equivalent: Contains 0.1 lb of halauxifen (2-pyridinecarboxylic acid, 4-amino-3-chloro-6-(4-chloro-2-fluoro-3-methoxyphenyl)) per pound of product.

Active Ingredient: Contains 0.1 lb of florasulam (N-(2,6-difluorophenyl)-8-fluoro-5methoxy[1,2,4]triazolo [1,5-c]pyrimidine-2-sulfonamide)

Precautionary Statements

Hazards to Humans and Domestic Animals

EPA Reg. No. 62719-661

Keep Out of Reach of Children

CAUTION

Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Harmful if Absorbed Through Skin. Avoid contact with skin, eyes or clothing. Causes moderate eye irritation. Wash hands 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:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

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.

Engineering Controls

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- 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 clothing.

First Aid

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 day or night, for emergency treatment information.

Environmental Hazards

NON-TARGET ORGANISM ADVISORY STATEMENT:

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift

GROUNDWATER ADVISORY STATEMENT:

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

SURFACE WATER ADVISORY STATEMENT:

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow water.

This product is classified as having high potential for reaching surface water via runoff for several days after application.

A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of florasulam from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read all Directions for Use carefully before applying.

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.

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 the label about personal protective equipment (PPE), restricted-entry interval, and notification to workers (as applicable). The requirements in this box 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.

Agricultural Use Requirements (Cont.)

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, such as plants, soil or water, is:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Storage and Disposal

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store in a cool, dry, well-ventilated place. Store in original container only. In case of leak or spill, contain material and dispose as waste

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Nonrefillable rigid containers 50 pounds or less:

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 puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. 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. **Or Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank. 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.

Nonrefillable nonrigid containers:

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available, or dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Refillable containers larger than 50 pounds:

Container Handling: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. If not refilled, offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Nonrefillable rigid containers larger than 50 pounds:

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 puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank. 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.

Product Information

Use Quelex® herbicide as a preplant burndown and postemergence herbicide for the control of annual broadleaf weeds such as common lambsquarters, redroot pigweed, cleavers, henbit, wild buckwheat and

mustards in wheat (including spring, winter and durum), barley, and triticale not underseeded with legumes.

Quelex rapidly stops growth of susceptible weeds. However, typical symptoms (discoloration) of dying weeds may not be noticeable for 1 to 2 weeks after application, depending upon growing conditions and weed susceptibility. Degree of control and duration of effect are dependent upon weed sensitivity, weed size, crop competition, growing conditions at and following treatment, and spray coverage.

Use Restrictions

- **Chemigation:** Do not apply this product through any type of irrigation system.
- Do not apply Quelex directly to, or otherwise permit it to come into direct contact with, susceptible crops or desirable plants including alfalfa, edible beans, canola, flowers and ornamentals, lentils, lettuce, peas, potatoes, radishes, soybeans, sugar beets, sunflowers, tomatoes, or tobacco. Do not permit spray mists containing Quelex to drift onto such plants.
- Do not apply to crops underseeded with legumes.
- Do not apply more than 0.75 ounces of Quelex per acre per growing season.
- Do not apply products containing halauxifen-methyl to the crop field more than two growing seasons per year.
- In New York State - do not apply product within 30 ft. of freshwater bodies such as but not limited to lakes, reservoirs, rivers, permanent streams, marshes, and natural ponds.
- Not for sale, distribution, or use in Nassau and Suffolk counties in New York State

WEED RESISTANCE MANAGEMENT

Quelex, which contains the active ingredients florasulam and halauxifen-methyl, is a group GROUP 2 or 4 herbicide, based on the mode of action classification system of the Weed Science Society of America. Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different modes of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product, users should:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- If using post-emergence herbicides or tank mixes, control weeds early when they are relatively small (less than 4 inches)
- Apply full rates of Quelex for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.
- Scout fields after application to detect weed escapes or shifts in control of weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed to your local company representative, local retailer, or county extension agent.
- Contact your local company representative, crop advisor, or extension agent to find out if suspected resistant weeds to these MOAs have been found in your region. Do not assume that each listed weed is being controlled by multiple mode of action. Products with multiple active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredient in this product.
- If resistance is suspected, treat weed escapes with an herbicide having a mode of action other than Group 2 or 4 and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.
- Suspected herbicide-resistant weeds may be identified by these indicators:
 - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
 - A spreading patch of non-controlled plants of a particular weed species; and
 - Surviving plants mixed with controlled individuals of the same species.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum herbicide with other mode of action as a foundation in a weed control program, if appropriate.
- Utilize sequential applications of herbicides with alternative modes of action.
- Rotate the use of this product with non-Group 2 or 4 herbicides.
- Avoid making more than two sequential applications of Quelex and any other Group 2 or 4 herbicides within a single growing season unless mixed with an herbicide with a different mode of action with an overlapping spectrum for the difficult-to-control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields to reduce weed seed production.

INTEGRATED PEST MANAGEMENT

This product should be used as part of an Integrated Pest Management (IPM) program that may include biological, cultural, and chemical practices aimed at preventing economic pest damage. Application of this product should be based on appropriate IPM and resistance management strategies and practices that delay or reduce the development of herbicide-resistant weed biotypes. Such practices include, but are not limited to, field scouting, use of weed free crop seed, cultural practices including burndown herbicides, crop rotation and cultivation, proper water management, correct weed pest identification, following rotational practices outlined on pesticide labels, and treating with the correct product rates when target weed populations are at the correct stage and economic thresholds for control.

Crop Rotation Intervals

The following rotational crops may be planted at the indicated interval following application of Quelex. For best results, conduct a field bioassay prior to planting any broadleaf crops not listed. Do not plant unlisted crops prior to 15 months after the last application.

Crop	Rotation Interval ^{(1) (2)}
barley, wheat, triticale	0 days
soybean	60 days
field corn, popcorn, seed corn, sweet corn, millet, oats, rice, rye, sorghum, sugarcane, grasses, cotton, sunflower	3 months
Alfalfa ⁽³⁾	4 months
Canola (fall seeded)	5 months
camelina, canola (spring seeded), chickpea, dry bean, peas (dry and succulent), flax, mustard, peanut, safflower, sugar beet, faba bean	9 months
Potato (not for seed) ⁽⁴⁾	10 months
other crops not listed	15 months

⁽¹⁾ Minimum number of months that must pass before planting other crops after application of Quelex.

⁽²⁾ In the event of cereal crop failure, no-till soybean, no-till cotton, field corn and sorghum may be planted 45 days after Quelex application in the states of AL, AR, DE, GA, IL, IN, KS, KY, LA, MD, MO, MS, NC, NE, NJ, OH, OK, PA, SC, TN, TX and VA.

⁽³⁾ For rotation to alfalfa, cumulative precipitation (including irrigation) must be greater than 6.0 inches between application date and alfalfa seeding date. Otherwise, rotation to alfalfa is recommended 9 months following application.

⁽⁴⁾ For rotation to potatoes, precipitation (including irrigation) must be greater than 8.0 inches during the 10 months following application of Quelex. Otherwise, rotation to potatoes is recommended 15 months following application.

Ground Applications: To minimize spray drift, apply Quelex in a total spray volume of 8 gallons or more per acre using spray equipment designed to produce coarse, low pressure sprays. Refer to the spray equipment manufacturer's recommendations for detailed information on nozzle types, arrangement, spacing and operating height and pressure. To prevent over-application when making spot treatments, apply with a calibrated boom. Operate equipment at spray pressures no greater than is necessary to produce a uniform spray pattern. Operate the spray boom no higher than is necessary to produce a uniformly overlapping pattern between spray nozzles.

Precautions

- For optimum spray distribution and thorough coverage, use flat fan or low volume flood nozzles. For flat fan nozzles, use a spray volume of at least 8 gallons per acre (GPA).
- For flood nozzles on 30" spacings use at least 10 GPA, flood nozzles no larger than an orifice size of 10. For 40" spacings, use at least 20 GPA. It is essential to overlap the nozzles 100% for all spacings.
- "Raindrop RA" (or similar) nozzles that produce extra-coarse sprays are not recommended for Quelex herbicide applications, as weed control performance may be reduced.

Restrictions

- Do not apply with hollow cone-type insecticide nozzles or other nozzles that produce a fine-droplet spray.
- Apply Quelex with a nozzle class that ensures a coarse or very coarse spray (according to ASABE S572.1).

SPRAY DRIFT

Aerial Applications:

- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- Applicators must use one-half swath displacement upwind at the downwind edge of the field. Do not apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10mph, the boom length must be 65% or less of the wingspan for fixed-wing aircraft and 75% or less of the rotor blade diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions.

Ground Boom Applications:

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.
- For applications prior to the emergence of crops, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

Boomless Ground Applications:

- Applicators are required to use Medium or coarser droplet size (ASABE S572.1) for all applications
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET 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 are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Ground Boom

- Volume – Increasing the spray volume so that 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 that is 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, nozzles should be oriented with the airflow in flight.

BOOM HEIGHT – Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT – Aircraft

Higher release heights increase the potential for spray drift. When applying aerially to crops, do not release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

SHIELDED SPRAYERS

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

TEMPERATURE AND HUMIDITY

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

TEMPERATURE INVERSIONS

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 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 applications during temperature inversions.

WIND

Drift potential generally increased with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

- Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

BOOM-LESS GROUND APPLICATIONS:

- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

HANDHELD TECHNOLOGY APPLICATIONS:

- Take precautions to minimize spray drift

Sensitive Areas: Only apply the pesticide when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Other State and Local Requirements

Applicators must follow all state and local pesticide drift requirements regarding application of herbicides. Where states have more stringent regulations, they must be observed.

Mixing Directions

Quelex - Alone

1. Fill the tank with 1/2 – 3/4 of the total amount of water.
2. Start agitation.
3. Add the required amount of Quelex.
4. Add the required amount of adjuvant (refer to Adjuvants section).
5. Continue agitation while filling the spray tank to the required volume.
6. To ensure a uniform spray mixture, continuous agitation is required during application. If product is allowed to settle, thoroughly agitate to resuspend the mixture before spraying. Apply mixture immediately after it is prepared.

Quelex - Tank Mix

If a broader spectrum of weed control is needed, Quelex may be tank mixed with labeled rates of other herbicides provided the following restrictions are observed:

Tank Mixing Restrictions:

- DO NOT TANK MIX ANY PESTICIDE PRODUCT CONTAINING GLUFOSINATE WITH QUELEX.
- Only use products in tank mixture with this product that: 1) are registered for the intended use site, application method and timing; 2) are not prohibited for tank mixing by the label of the tank mix product.
- Do not exceed specified application rates for respective products or maximum allowable Application rates for any active ingredient in the tank mix.
- Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels. 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 limitations 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.
- Always perform a (jar) test to ensure the compatibility of products to be used in tank mixture.

Tank Mix Compatibility Testing: When tank mixing Quelex with other materials, a jar test using relative proportions of the tank mix ingredients should be conducted prior to mixing ingredients in the spray tank. Use a clear glass quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludges, gels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

Vigorous, continuous agitation during mixing, filling and throughout application is required for all tank mixes. Sparger pipe agitators generally provide the most effective agitation in spray tanks. To prevent foaming in the spray tank, avoid stirring or splashing air into the spray mixture.

Mixing Order for Tank Mixes:

1. Fill the spray tank to 3/4 of the total spray volume required with water.
2. Start agitation.
3. Add the correct amount of Quelex and agitate for 2 to 3 minutes
4. After adding Quelex, add different formulation types in the following order: (1) dry flowables; (2) wettable powders; (3) aqueous suspensions, flowables and liquids. Maintain agitation and add: (4) emulsifiable concentrates; (5) solutions; and (6) adjuvants. Allow each product type to completely mix and disperse before adding another.
5. Finish filling the spray tank. Maintain continuous agitation during mixing and throughout application. If product is allowed to settle, thoroughly agitate to resuspend the mixture before spraying. Apply mixture immediately after it is prepared.

If application or agitation must be stopped before the spray tank is empty, the materials may settle to the bottom. Settled materials must be resuspended before spraying is resumed. A sparger agitator is particularly useful for this purpose. Settled material may be more difficult to resuspend than when originally mixed. Do not allow tank mixes to set overnight.

Clean-Out Procedures for Spray Equipment

1. Drain any remaining spray mixture from the application equipment, then wash out tank, boom, and hoses with clear water. Drain again.
2. Hose down the interior surfaces of the tank while filling the tank 1/2 full of water.
3. Add commercial tank cleaner, such as household ammonia, at a rate of 1 gallon per 100 gallons of water. Recirculate for 10 – 20 minutes and spray out the mixture through the boom.
4. Remove all spray nozzles and screens and clean separately.
5. If spray equipment will be used for pesticide application to crops sensitive to Quelex, repeat steps 1 through 3. Additional steps may also be required to remove all traces of Quelex including replacing hoses or other fittings that may contain adsorbed actives.
6. Thoroughly clean exterior surfaces of spray equipment.

Note: Rinsate may be disposed of on site according to label use directions or at an approved waste disposal facility. Reduced results may occur if water containing soil is used, such as visibly muddy water or water from ponds and ditches that is not clear.

Weeds Controlled or Suppressed

Common Name

Scientific Name

Weeds Controlled

buckwheat, wild
buttercup, smallflower
canola, volunteer¹
chamomile, corn
chamomile, false (scentless)
chamomile, mayweed (dogfennel)
chamomile, wild
chickweed, common
catchweed bedstraw (cleavers)
deadnettle, purple
filaree, redstem
flixweed
flax, volunteer
fumitory
geranium, Carolina
groundsel, cressleaf
hawksbeard, narrowleaf
hemnettle, common
henbit
horseweed (maretail)
lambquarters, common
London rocket
mustard, black
mustard, blue (purple)
mustard, tansy
mustard, treacle (bushy wallflower)

Polygonum convolvulus
Ranunculus abortivus
Rapistrum rugosum
Anthemis arvensis
Matricaria perforata
Anthemis cotula
Matricaria discoidea
Stellaria media
Galium aparine
Lamium purpureum
Erodium cicutarium
Descurainia sophia
Linum usitatissimum
Fumaria officinalis
Geranium carolinianum
Senecio glabellus
Crepis tectorum
Galeopsis tetrahit
Lamium amplexicaule
Conyza canadensis
Chenopodium album
Sisymbrium irio
Brassica nigra
Chorispora tenella
Descurainia pinnata
Erysimum repandum

Weeds Controlled or Suppressed (Cont.)

Common Name	Scientific Name
mustard, tumble (Jim Hill)	<i>Sisymbrium altissimum</i>
mustard, wild	<i>Sinapis arvensis</i>
pennycress, field	<i>Thlaspi arvense</i>
pepperweed, Virginia	<i>Lepidium virginicum</i>
pigweed, redroot	<i>Amaranthus retroflexus</i>
ragweed, common	<i>Ambrosia artemisiifolia</i>
ragweed, giant	<i>Ambrosia trifida</i>
soybean, volunteer	<i>Glycine max</i>
shepherdspurse	<i>Capsella bursa-pastoris</i>
smartweed (green, ladysthumb, Pennsylvania)	<i>Polygonum spp.</i>
vetch, hairy	<i>Vicia villosa</i>

Weeds Suppressed²

bindweed, field	<i>Convolvulus arvensis</i>
dandelion	<i>Taraxacum officinale</i>
kochia	<i>Kochia scoparia</i>
lettuce, prickly	<i>Lactuca serriola</i>
sunflower, common	<i>Helianthus annuus</i>
sowthistle, annual	<i>Sonchus oleraceus</i>
sowthistle, perennial	<i>Sonchus arvensis</i>
thistle, Canada	<i>Cirsium arvense</i>

¹Including herbicide-tolerant canola varieties except Clearfield (imidazolinone-tolerant) canola.

²Suppression is expressed as a reduction in weed competition (reduced population or vigor) as compared to untreated areas. The degree of weed control and duration of effect may vary with weed size, density, application rate, coverage, and growing conditions before, during and after treatment.

Product Application Instructions

Application Timing

Apply Quelex in the spring or fall early postemergence to the main flush of actively growing weeds in the 2 to 4 leaf stage or less than 4 inches tall. See the crop-specific use directions of this label for complete application instructions and restrictions. Extreme growing conditions such as drought or near freezing temperatures prior to, at, or following time of application may reduce weed control and increase the risk of crop injury at all stages of growth. Only weeds that have emerged at the time of application will be controlled. If foliage is wet at the time of application, control may be decreased. Applications of Quelex are rainfast within 4 hours after application.

Spray Coverage

Use sufficient spray volume to provide thorough coverage and a uniform spray pattern. Do not broadcast apply in less than 5 gallons of total spray volume per acre. For best results and to minimize spray drift, apply in a spray volume of 10 gallons or more per acre. As vegetative canopy and weed density increase, increase spray volume to obtain acceptable weed control. Use only nozzle types and spray equipment designed for herbicide application. To reduce spray drift, follow precautions under Avoid Injurious Spray Drift.

Adjuvants

When Quelex is applied alone, use a non-ionic surfactant at 1.6 to 4 pints per 100 gallons of spray solution (0.2 – 0.5% v/v), or a Crop Oil Concentrate (COC) or Methylated Seed Oil (MSO) at 4 to 8 pints per 100 gallons (0.5 – 1.0% v/v). When Quelex is applied in combination with emulsifiable concentrate (EC) formulations, such as 2,4-D ester or MCPA ester, additional adjuvant is not required. When an adjuvant is to be used with this product, Corteva Agriscience recommends the use of a Council of Producers & Distributors of Agrotechnology certified adjuvant.

Application in Fluid Fertilizer

Quelex may be applied in spray solutions containing liquid nitrogen fertilizer. Run a tank mix compatibility test before mixing Quelex in fertilizer solution. Mix and disperse Quelex granules in clean water as a pre-slurry before adding to liquid fertilizer solution. If using a non-ionic surfactant when Quelex is applied in spray solutions containing liquid nitrogen fertilizer, use non-ionic surfactant at a maximum rate of 0.25% v/v. Do not use crop oil concentrate or methylated seed oil. Additional adjuvants are not needed when using Quelex in tank mix with 2,4-D ester or MCPA ester and liquid nitrogen fertilizer solutions. Temporary crop injury may result when liquid nitrogen fertilizer is used as the spray carrier. Foliar-applied liquid nitrogen fertilizer may cause foliar leaf burn, yellowing or reduced growth due to the activity of the liquid fertilizer on the crop.

Preplant Application

Application Information

Use Rate

Apply 0.55 to 0.75 oz Quelex per acre. Use the 0.55 oz rate for lighter infestations and/or small stages of weeds.

Application Timing

Quelex may be used as a preplant burndown in the spring, summer or fall when the majority of weeds have emerged and are actively growing.

Crop Specific Information

Wheat (including spring, winter and durum), Barley, and Triticale

Apply 0.55 to 0.75 oz Quelex per acre as a preplant burndown treatment to wheat (including durum), barley and triticale to control emerged weeds prior to, or shortly after planting (prior to emergence). If applied after seeding, do not apply if soil has begun cracking over the drill row due to emerging crop seedlings. Make applications when the majority of weeds have emerged and are actively growing.

Observe all plant back restrictions listed in the Crop Rotation Intervals table of this label.

Preemergence to Fall Early Postemergence Application

Wheat (winter only)

Apply 0.75 oz of Quelex per acre in the fall to newly planted or actively growing seedling winter wheat. For best results, apply when weeds are actively growing in the 2 to 4 leaf stage or less than 4 inches tall. Only weeds emerged at the time of treatment will be controlled. Best results are obtained from applications made to seedling weeds. For spring application to winter wheat see Postemergence Application section below.

Postemergence Application

Wheat (Including spring, winter and durum), Barley and Triticale

Apply 0.75 oz of Quelex per acre to actively growing wheat (including spring, winter and durum), barley and triticale, from the 2-leaf to flag leaf emergence stage (Zadoks scale 39). For winter wheat only, applications can be made from coleoptile emergence through flag leaf emergence. The treatment may be applied in the autumn or spring in winter wheat. For best results, apply when weeds are actively growing in the 2 to 4 leaf stage or less than 4 inches tall. Only weeds emerged at the time of treatment will be controlled. Best results are obtained from applications made to seedling weeds.

Warm, moist growing conditions promote active weed growth and enhance the activity of Quelex by allowing maximum foliar uptake and contact activity. Weeds hardened off by cold weather or drought stress may not be adequately controlled or suppressed and re-growth may occur. For best results, ensure thorough spray coverage of target weeds.

Quelex Use Restrictions:

1. Do not apply more than 0.75 oz of Quelex per acre per growing season.
2. Do not apply more than 2.25 oz of Quelex per acre per year between all preplant and postemergence applications.
3. **Preharvest Interval (PHI):** Do not apply within 60 days of crop harvest.
4. Do not apply closer than 21 days before cutting of hay.
5. Do not allow livestock to graze on treated crops for 7 days following application.
6. Do not use treated plant material or manure from animals that have grazed or consumed forage from treated areas for compost, mulch, or mushroom spawn until 14 days after application.

Terms and Conditions of Use

If terms of the following Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. To the extent permitted by law, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitation, of Remedies.

Warranty Disclaimer

Corteva Agriscience warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. To the extent permitted by law, Corteva Agriscience MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Corteva Agriscience or the seller. Corteva Agriscience will not be responsible for losses or damages resulting from the use of this product in any manner not specifically directed by Corteva Agriscience. To the extent permitted by law, all such risks associated with non-directed use shall be assumed by buyer and/or user.

Limitation of Remedies

To the extent permitted by law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, tort, strict liability, or other legal theories), shall be limited to, at Corteva Agriscience's election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

To the extent permitted by law, Corteva Agriscience shall not be liable for losses or damages resulting from handling or use of this product unless Corteva Agriscience is promptly notified of such loss or damage in writing. To the extent permitted by law, in no case shall Corteva Agriscience be liable for consequential, incidental or special damages or losses.

The terms of the Warranty Disclaimer, Inherent Risks of Use, and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Corteva Agriscience or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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Produced for
Corteva Agriscience LLC
9330 Zionsville Road
Indianapolis, IN 46268

Label Code: CD02-411-021
Replaced Label: CD02-411-020
EPA accepted 03/05/2025

Revisions:

1. Corrected Typo in Mode of Action changed halauxifen-methyl to 4 and florasulam to 2 in the Mode of Action table.
2. Updated to Corteva branding and trademark statement
3. Added: Not for sale, distribution, or use in Nassau and Suffolk counties in New York State.
4. Cover, shipping Label → Booklet cover / small container base label
 - a. Updated reference statement to include ***"including First Aid and"***...Directions for Use.

5. Expanded "Environmental Hazards" section.
 - a. Added section "Non-Target Organism Advisory"
 - b. Added Heading "Groundwater Advisor"
 - c. Added section "Surface Water Advisory"
6. Added Use Restriction: New York required language: "In New York State - do not apply product within 30 ft. of freshwater bodies such as but not limited to lakes, reservoirs, rivers, permanent streams, marshes, and natural ponds."
7. Added mandatory "Weed Resistance Management" language
8. Added mandatory "Integrated Pest Management" language
9. Crop Rotational Table:
 - a. Alfalfa: Reduced plant back interval to 4 months; Added footnote (3) describing the requirement of rainfall: For rotation to alfalfa, cumulative precipitation (including irrigation) must be greater than 6.0 inches between application date and alfalfa seeding date. Otherwise, rotation to alfalfa is recommended 9 months following application.
 - b. Add Potato to the Crop Rotation Interval table at 10 months
 - c. Added a 4th footnote to the Crop Rotation Interval table for potato: "For rotation to potato...15 months following application."
 - d. Updated Soy Plantback interval to 60 days in Crop Rotation Table.
 - e. Added NE, NJ, and PA to 'cereal crop failure statement to read: In the event of cereal crop failure, no-till soybean, no-till cotton, field corn and sorghum may be planted 45 days after Quelex application in the states of AL, AR, DE, GA, IL, IN, KS, KY, LA, MD, MO, MS, NC, NE, NJ, OH, OK, PA, SC, TN, TX and VA.
10. Reformatted "Spray Drift Advisories" section.
11. Add the following weeds controlled: filaree, redstem; groundsel, cressleaf; and pepperweed, virginia, ragweed, common; ragweed, giant
12. Updated application timing directions:
 - a. Added Section: Preemergence to Fall Early Postemergence Application.
 - b. Added statement to Postemergence Application in 1st paragraph new second sentence, "For winter wheat only...flag leaf emergence."
 - c. Added the following statement to Postemergence Application section: Do not use treated plant material or manure from animals that have grazed or consumed forage from treated areas for compost, mulch, or mushroom spawn until 14 days after application.
13. Expanded "Mandatory Spray Drift Management" section
14. Related to change of company name, address, and contact information for company 62719 accepted by EPA January 5, 2021, the following additional changes have been made:
 - a. Produced For: Updated company name to "Corteva Agriscience LLC"
 - b. Terms and Conditions for Use: Updated
 - c. Warranty Disclaimer: Updated
 - d. Inherent Risks of Use: Updated
 - e. Limitation of Remedies: Updated
 - f. Throughout label: Updated references to "Dow AgroSciences" to either "company" or "Corteva Agriscience"