QUALI-PRO

SULFENTRAZONE	GROUP	14	HERBICIDE

EXPEL

Turf Herbicide

- Visible initial results in 24 hours.
- Kills Sedge and Kyllinga Fast.

For Use in Railroad, Highway, Roadside, Pipeline and Utility Rights-of Way, Industrial Areas, Fence Rows, and Other Non-crop Sites. Can Also Be Used for Selective Weed Control in Turf Sites Including Residential and Institutional Lawns, Athletic Fields, Commercial Sod Farms, Golf Course Fairways and Roughs. Also for use as Selective Weed Control in Container and Field grown ornamentals.

ACTIVE INGREDIENT:
Sulfentrazone*.....39.6%
OTHER INGREDIENTS:.....60.4%
TOTAL: 100.0%

*Equivalent to 4 pounds of active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

Si usted no entienda 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.)

FIRST AID	
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 do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
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 INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
HOT LINE 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 SafetyCall at 1-866-897-8050 for emergency medical treatment information.	

Manufactured for:
Control Solutions, Inc.
5903 Genoa Red Bluff
Pasadena, TX 77507

EPA Reg. No. 53883-478
EPA Est. No. 87431-MO-001A
88746-GA-01

NET CONTENTS: **QUART**

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful if swallowed, absorbed through skin, or inhaled. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handing and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils. nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, Viton ≥ 14 mils.
- Shoes plus socks

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not re-use 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 should:

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

ENVIRONMENTAL HAZARDS

This pesticide is toxic to marine/estuarine invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

Groundwater advisory:
Sulfentrazone is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Do not use on coarse soils classified as sand, which have less than 1% organic matter.

Surface water advisory:
Sulfentrazone can contaminate surface water through spray drift. Under some conditions, sulfentrazone may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several to many months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-lying tile drainage systems that drain to surface waters.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

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

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.
Applicators must not exceed labeled rates of this product. Refer to specific crop directions for use for maximum use rates. Calculate the 12-month period for the purpose of maximum use rates from when EXPEL is first applied.

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 this label about personal protective equipment (PPE) and restricted-entry interval. These requirements 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.

Personal Protective Equipment (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:

- Coveralls
- chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, Viton ≥ 14 mils.
- shoes plus socks

NON-AGRICULTURAL 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.

Reentry Statement: Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treatment area until sprays have dried.

WEED RESISTANCE MANAGEMENT

For resistance management, EXPEL is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to EXPEL and other Group 14 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance management strategies should be followed.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of EXPEL or other Group 14 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop

seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.

- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.

PRODUCT INFORMATION

EXPEL is a soil-applied selective herbicide. It will control listed grasses, sedges and broadleaf weeds. EXPEL is a flowable product that contains 4 pounds of active ingredient (sulfentrazone) per gallon.

The active ingredient sulfentrazone inhibits an enzyme required by plants in order to produce chlorophyll.
Inhibiting this enzyme leads to the release of singlet oxygen (O) which then disrupts cellular membranes, resulting in cellular leakage and cellular death ultimately resulting in plant death.

EXPEL has a selective mode of action because sulfentrazone has a greater affinity for the PRO IX enzyme in listed weed species as opposed to listed crops.

EXPEL must be prepared and used in such a way so as to prevent the following:

- spills
- improper disposal of spray mixtures, rinsate or any excess pesticide
- back siphoning in wells

Setback
The following activities must not be carried out within 50 feet of any well (including drainage and abandoned wells) unless the activity is carried out on an impervious pad that has been built to withstand the heaviest possible weight that will be moved across the pad or placed upon it:

- Loading
- Mixing
- Washing/rinsing EXPEL from application equipment

The impervious pad must be made to contain any leaks or spills, as well as any rinsate/washwaters and rain that may fall upon it. An impervious pad that does not have a roof must have enough capacity to contain a minimum of 110% of the volume of the largest container that will be placed on the pad. Those pads that are covered by a roof must have enough capacity to contain a minimum of 100% of the volume of the largest container that will be placed on the pad. The roof must be big enough to completely exclude contact with the pad from rainfall.

The above containment volume minimum must be maintained. The minimum capacity volumes do not apply to the following:

- Vehicles delivering pesticide product to the load/mix area

Applicators must ensure that they are aware of any State requirements for containment and set back from wells.

The impervious pad must be self-contained so that surface water cannot flow over or from one pad. They
must also be sloped to allow for material removal.

Do not load or mix EXPEL within 50 feet of any sinkholes, reservoirs, impounded or natural lakes, wells (including drainage and abandoned wells) or intermittent/perennial rivers and streams. This restriction does not apply where there are properly diked loading/mixing areas or impervious pads. The restriction also does not apply where abandoned wells are properly plugged or capped.

APPLICATION INSTRUCTIONS

Apply EXPEL as a broadcast treatment at rates indicated, in enough water to obtain good coverage and to make at least 10 gallons finished spray per acre.

When EXPEL is tank mixed or applied alone, use water, as the carrier.

In order to assure appropriate amounts of moisture for activation of product, best results will be obtained if EXPEL is applied in early spring, late summer or fall.

Make application with a boom and nozzle sprayer or boomless application system. Make application at spray pressure of 25 psi or below, unless the manufacturer specifies otherwise. Achieve best possible spray delivery and coverage, with minimum amounts of fine spray droplets by utilizing properly chosen and adjusted nozzles, spray tips, and screens.

Applications by helicopter can only be made to railroad rights of way.

Do not allow spray to drift onto adjacent plants as injury to other plants may occur.

When EXPEL has been activated, it will provide control of listed weed species. The level of control will depend on the size and type of weed species when EXPEL is activated. The control of listed germinating weed species will be reduced when rain or irrigation follows a period of dry weather.

Where there are prolonged periods when rainfall/irrigation is not available, alternative weed control methods should be considered.

Once a treatment with EXPEL has been made, seedlings and germinating seeds absorb sulfentrazone from the soil solution. The amount of available active ingredient contained in the soil solution, is determined by the following factors:

- soil type
- soil pH
- soil organic matter content

SPRAY DRIFT

Select nozzles and application pressure that deliver medium to coarse or larger spray droplets as indicated in the nozzle manufacturer's recommendations and in accordance with the ASABE* Standard S-572.

Select coarse to very coarse droplet size when sulfentrazone is used as a preemergent/preplant application.

Select medium to very coarse droplet size when sulfentrazone is used postemergence with a contact burndown herbicide.

Applicators may spray only when wind speed is between 3 and 10 mph.

Do not apply as spray droplets smaller than medium to coarse (defined by the ASABE* standard).

Application by Air

- Aerial application is allowed only when the field is too wet to safely apply pesticides using ground equipment.
- For aerial applications, the maximum release height must be 10 feet from the top of the crop canopy, unless a greater application height is required for pilot safety.
- When this product I allowed to be applied by air, applicator must use a minimum finished spray volume of 5 gallons per acre.

Application by Ground

- Ground applicators must use a minimum finished spray volume of 10 gallons per acre.
- When sulfentrazone is tank mixed with a contact burndown herbicide, ground applicators must use a minimum spray volume of 15 gallons per acre.

CALIFORNIA ONLY SPECIFIC RESTRICTIONS ON APPLICATIONS OF EXPEL

Runoff Ground Water Protection Areas. Do not use in areas identified by the California Department of Pesticide Regulation as runoff ground water protection areas* unless one of the following management practices can be met:

a) Incorporation of the pesticide. Within 48 hours after the day this product is applied, the pesticide shall be incorporated on at least 90 percent of the area treated; using a disc, harrow, rotary tiller, or other mechanical method, or by sprinkler or low flow irrigation, including chemigation where allowed by the label, using a minimum of ¼ inch of irrigation water and a maximum of one inch as described under Application Instructions, at application rates that do not cause surface water runoff from the treated property or to wells on the treated property; or
b) Retention of runoff on field. For six months following the application, the field shall be designed, by berms, levees, or nondraining circulation systems, to retain all irrigation runoff and all precipitation on, and drainage through, the field. The retention area on the field shall not have a percolation rate of more than 0.2 inches per hour (5 inches per 24 hours); or
c) Retention of runoff in a holding area off the field. For six months following application, all runoff shall be channeled to a holding area off the application site, under the control of the property owner, that is designed to retain all irrigation runoff and all precipitation on, and drainage through, the treated field and all other areas draining onto that holding area. The holding area shall not have a percolation rate of more than 0.2 inches per hour (5 inches per 24 hours); or
d) Runoff onto a fallow field. For six months following application, runoff shall be managed so that it runs off onto an adjacent unenclosed fallow field at least 300 feet long that is not irrigated for six months after application with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under Application Instructions, with full consideration of any plant back restrictions.

Artificial Recharge Basins. Do not use below the high water line inside artificial recharge basins (a surface facility, such as an infiltration pond or basin, or spreading ground that is specifically designed and managed to increase the infiltration of introduced surface water supplies into a ground water basin), unless this product is applied six months or more before the basin is used to recharge ground water. Unlined Canals and Ditches. Do not use below the high water line inside unlined canals and ditches unless either (a) the pesticide user can document that the percolation rate of the canal or ditch is equal to or less than 0.2 inches per hour (0.002 gallons per minute per square foot), or (b) the pesticide is applied six months before water is run in the canal or ditch.

Rights-of-Way. Do not use on engineered rights-of-way in areas established by the California Department of Pesticide Regulation as leaching or runoff ground water protection areas* unless either (a) any runoff from the treated right-of-way shall pass through a noncrop fully vegetated area adjacent, and equal in area, to the treated area, or spread out onto an adjacent unenclosed fallow field that is at least 300 feet long and that will not be irrigated for six months following application with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under Application Instructions, with full consideration of any plantback restrictions, or (b) the property operator complies with any permit issued pursuant to the storm water provisions of the federal Clean Water Act pertaining to the treated area.

Leaching Ground Water Protection Areas. Do not use in areas designated by the California Department of Pesticide Regulation as leaching ground water protection areas* unless either (a) the user does not apply any irrigation water for six months following application of this product or (b) the user applies this product to the planting bed or the berm above the level of irrigation water in the furrow or basin and the water level shall remain at or below the level for six months following application of the following application as described under Application Instructions, or (c) irrigation is managed so that the ratio of the amount of irrigation water applied divided by the net irrigation requirement is 1.25 or less for six months following application of this product.

*Consult with your County Agricultural Commissioner to determine whether the application will be within an area designated by the California Department of Pesticide Regulation as either a Runoff Ground Water Protection Area or a Leaching Ground Water Protection Area. Details regarding the locations of these areas are also available via the internet at http://www.cdpr.ca.gov/docs/emon/ehap.htm.

Mixing with Liquid Fertilizers
EXPEL may be applied in combination with liquid fertilizers. Local advice regarding fertilizers can yield recommendations of products best suited in your area (e.g., urea or DAN solutions). Follow use and mixing and directions on fertilizer labels. Determine the compatibility of a liquid fertilizer combination before mixing [In a lidded glass jar (~1 quart size), add all mix partners, in their relative proportions. Invert, shake or mix the jar thoroughly. If mixture forms precipitates (flakes or sludge), gels, balls up or forms oily films or layers, this indicates incompatibility. Though signs of incompatibility will typically be seen within 5 minutes of mixing, mixture should be observed for approximately 30 minutes.

Mixing and Loading Instructions
This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas. Operations that involve mixing, loading, rinsing or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well, are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and

rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment. Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

Sprayer Equipment Clean-Out

After spraying EXPEL and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure:

1. Drain sprayer tank, hoses, and spray boom and thoroughly rinse the inside of the sprayer tank with clean water to remove sediment and residues. In addition, thoroughly flush sprayer hoses, boom, and nozzles with clean water.
2. Fill the tank 1/2 full with clean water, and add appropriate detergent or ammonia (follow manufacturer's directions for use). Fill the tank to capacity and operate the sprayer for 15 minutes to flush hoses, boom, and nozzles.
3. Drain the sprayer system. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray tips and screens separately.
4. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State and local regulations and guidelines.

Do not drain or flush equipment on or near desirable trees or plants. Do not contaminate any body of water that may be used on other plants.

TURF GRASSES
(Including Residential Lawns, Institutional Lawns, Athletic Fields, Golf Course Fairways and Roughs and Commercial Sod Farms)

EXPEL can be used to control broadleaf, grass and sedge weeds in established turfgrasses (seeded, sodded or sprigged). Turf grasses should be established (good root system; uniform stand) tolerant to EXPEL (see below). A healthy root system is necessary to fill in exposed edges, which are more susceptible to EXPEL.

Tolerant Turf Grasses

Cool Season Grasses: Apply EXPEL at 4 to 8 fl oz (0.125-0.25 lb a.i.) per acre (unless noted) to:

Bentgrass, creeping*
Fescue Fine** (*Festuca rubra*)
Fescue, Tall** (*Festuca arundinacea*)
Ryegrass, Perennial (*Lolium perenne*)
Bluegrass
Kentucky (*Poa pratensis*)
Bluegrass, Rough*** (*Poa trivialis*)

*Apply a maximum of 4 fl oz EXPEL to creeping bentgrass
** An undesirable plant response can occur if applying EXPEL to certain varieties of Chewings fine fescue or tall fescue.

Warm Season Grasses: Apply EXPEL at 8 to 12 fl oz (0.25-0.375 lb a.i.) per acre to:

Bahiagrass*** (*Paspalum notatum*),
Buffalograss (*Buchloe dactyloides*),
Carpetgrass (*Axonopus affinis*),
Centipedegrass (*Eremochioa ophuidides*),
Kikuyugrass (*Pennisetum clandestinum*),

Sheashore Paspalum (*Paspalum vaginatum*),
Zoysiagrass*** (*Zoysia japonica*),
Bermudagrass (*Cynadon dactylon*),
Bermudagrass Hybrids (*Cyn bluegrass*),
St. Augustinegrass*** (*Stenotaphrum secundatum*)

*** St. Augustine grass and some varieities of bahiagrass, rough bluegrass or zoysiagrass, particularly turfgrass that has been stress-weakened can experience temporary leaf surface discoloration (removed upon mowing) upon application of EXPEL. Chemicals, certain cultural practices, disease, mechanical exposure and cultivation and weather can all be causes of stress-weakened turf.

Not all varieties or cultivars have been tested with EXPEL. Consult with university or weed management specialists for information on using EXPEL with specific local varieties or cultivars of turfgrass. Prior to treatment on new turgrass varieties, test response to EXPEL by applying to a small area of turfgrass

Do not apply more than 12.0 fl. oz. product (0.375 lbs sulfentrazone) per acre per 12 month period. The 12 month period starts at the point of first application.

Preemergence Weed Control
When applied as indicated on this label, the following weeds will be controlled or suppressed with EXPEL

Summer Annual Weeds - apply in early spring, prior to germination of weed seeds.

Broadleaf Weeds:
Black medic (*Meidcago lupulina*)
Common purslane (*Portulaca oleracea*)
Pigweed, redroot (*Amaranthus retroflexus*)
Pigweed, smooth (*Amaranthus hybridus*)
Prostrate knotweed (*Polygonum aviculare*)
Spurge (*Euphorbia spp*)
Spurge, prostrate (*Euphorbia supine*)
Spurge, spotted (*Euphorbia maculate*)

Grassy Weeds:
Barnyardgrass (*Echninochloa crusgalli*)
Crabgrass, large (*Digitrana sanguinalis*)
Crabgrass, smooth (*Digitana ischaemum*)
Foxtail, green (*Setana vindis*)
Foxtail, yellow (*Setana glauca*)
Goosegrass (*Eleusine indica*)

Winter Annual Weeds - apply in late summer or early fall.

Broadleaf Weeds:
Buttercups (*Ranunculus spp.*)
Carolina geranium (*Geranium carolinianum*)
Chickweed, common (*Stellana media*)
Chickweed, mouseear (*Cerastium vulgatum*)
Common groundsel (*Senecio vulgans*)
Corn Speedwell (*Veronica arvensis*)
Hairy bittercress (*Cardamine hirsute*)
Henbit (*Lamium amplexicaule*)
Knawel (*Scieranthus annuus*)
Large Hop clover (*Trifolium campestre*)
Parsley piert (*Alchemilla microcarpa*)
Spurweed (*Soliva pterosperma*)
Violet, Johnny-jump-up (*Viola rafeinesquii*)

Grassy Weeds:
Annual bluegrass (*Poa annua*)
Annual ryegrass (*Lolium multiflorum*)

Postemergence Weed Control
When applied as indicated on this label, the following weeds in turfgrass will be controlled or suppressed with EXPEL:

Broad leaf Weeds:

Bedstraw, catchweed (*Galium apanne*)
Bittercress (*Cardamine spp.)*
Buttercup *(Ranunculus spp.)*
Carpetweed *(Mollugo verticillata)*
Beggarweed, Florida *(Desmodium tortuosum)*
Black Medic *(Medicago lupulina*)
Carolina geranium *(Geranium carolinianum)*
Chickweed, common *(Stellaria media)*
Chickweed, mousear *(Cerastium vulgatum)*
Clover *(Trifolium spp.)*
Cudweed *(Gnaphalium spp.)*
Dock, curly *(Rumex crispus)*
Eclipta *(Eclipta prostrata)*
Fiddleneck *(Amsinckia spp.)*
Galinsoga *(Galinsoga ciliate)*
Goldenrod *(Solidago spp.)*
Groundsel, common *(Senecio vulgans)*
Knawel *(Scieranthus annuus)*
Kochia *(Kochia scoparia)*
Lawn burweed (spurweed) *(Soliva pterosperma)*
Mallow, common (*Malva neglecta)*
Parsley piert *(Alchemilla arvensis)*
Pigweed, smooth *(Amaranthus hybridus)*
Pineapple weed *(Matricaria matricariodes)*
Puncture weed *(Tribulus terrestris)*
Pusley, Florida *(Richardia scabra)*
Rocket, London *(Sisymbrium irio)*
Smartweed, PA *(Polygonum pensylvanicum)*
Speedwell *(Veronica spp.)*
Spurge, prostrate *(Euphorbia humistrata)*
Star of Bethlehem *(Omithogalum umbellatum)*
Violet, wild *(Viola pratincola)*
Woodsorrel, creeping (*Oxalis corniculata*)
Cinquefoil *(Potentilla spp.)*
Copperleaf *(Ascalypha spp.)*
Dandelion *(Taraxacum officinale)*
Dollarweed *(Hydrocotyl umbellate)*
Evening primrose *(Oenothera biennis)*
Filaree *(Erodium spp.)*
Garlic, wild *(Allium vineale)*
Ground ivy *(Glechema hederasea)*
Henbit *(Lamium amplexicaule)*
Knotweed, prostrate *(Polygonum aviculare)*
Lambsquarters.common *(Chenopodium album)*
Lespedeza, common *(Lespedeza striata)*
Onion, wild *(Allium canadense)*
Pigweed, redroot *(Amaranthus retroflexus)*
Pigweed, tumble *(Amaranthus albus)*
Plantain, buckhorn *(Plantago lanceolate)*
Purslane, common *(Portulaca oleracea)*
Red weed *(Melochia corchorifolia)*
Shepherd's purse *(Capsella bursa pastons)*
Sorrel, red *(Rumex acetosella)*
Spurge, annual *(Euphorbia spp.)*
Spurge, spotted *(Euphorbia maculata)*
Velvetleaf *(Abutilon theophrasti)*
Violet, Johnny-jump-up *(Viola rafeinesquii)*
Woodsorrel, yellow *(Oxalis stricta)*

Grassy Weeds:

Goosegrass (*Eleusine indica)*

Sedges:

Kyllinga, green (*Kyllinga brevifolia)*
Nutsedge, purple (*Cyperus rotundus)**
Sedge, cylindrical *(Cyperus retrorsus)*
Sedge, Surinam *(Cyperus surinamensis*)
Kyllinga, false green *(Kyllinga gracillima)*
Nutsedge, yellow *(Cyperus esculentus)*
Sedge, globe (*Cyperus glubulosus)*
Sedge, Texas *(Cyperus polystachyos)*

***NOTE:** Split applications give optimum control of purple nutsedge. When actively growing purple nutsedge is evident, apply as indicated below:

- Cool season grasses: 2 - 4 fl. oz (0.0625-0.125 lb a.i.) EXPEL per acre first application, followed by second application of 4 -6 fl. oz. (0.125-0.19 lb a.i.) per acre
- Maximum annual application rate is 8 fl. Oz. (0.25 lb. a.i) on cool season grasses
- Warm season grasses: 6 - 8 fl. oz. (0.19-0.25 lb a.i.) EXPEL per acre first application, followed by second application of 4-6 fl. oz. (0.125-0.19 lb a.i.) per acre.

- Maximum annual application rate is 12 fl. Oz. (0.375 lb. a.i) on warm season grasses.
- Allow 35 days between applications

Application Instructions
Apply amount of EXPEL indicated above to turfgrass to control or suppress indicated weeds.

Best control is achieved with grassy weeds when applied with grasses are actively growing and small (pre tiller stage). Application rates lower than 12 fl. oz/ acre will control grasses for 60 days.

Optimum control of broadleaf weeds will occur if application is made shortly after weed emergence.

Applications to sprigged, overseeded or reseeded areas: Turfgrasses can be sprigged, overseeded or reseeded after EXPEL applications. Best results are obtained from waiting at least 1 month after EXPEL application before sprigging, overseeding or reseeding. If slight plant response can be tolerated, overseeding of Bermudagrass with perennial ryegrass can be done between 2 to 4 weeks after EXPEL application.

Observing proper fertilization, irrigation and soil cultivating practices, and using mechanical or power seeding equipment will give optimum overseeding or reseeding results.

Optimum weed control is obtained with thorough spray coverage.

Selective Weed Control in Container and Field Grown Ornamentals.

Apply as a directed spray toward the base of the plant. Do not spray over-the-top. EXPEL is the most effective when applied to soil free of clods and debris such a s leaves or mulch. When applied pre-emergence, the treated area should receive at least 0.25 inches of irrigation of rainfall after application for the greatest efficacy.

The addition of liquid fertilizers can increase the probability of superficial damage to green plant tissue inadvertently treated if applied with EXPEL.

Use Precautions

1. Direct application of EXPEL to actively growing foliage can cause unacceptable injury to desirable plants. See below list for compatible plants. To reduce injury, apply EXPEL as a site directed spray to the soil around the base of the plant. Avoid application directly to plant foliage where possible. However, if foliage contacted during application, apply overheard irrigation to the foliage to wash EXPEL from plant surfaces onto soil.

Restrictions

1. Do not apply to areas where ornamental bulbs or dormant non-woody perennials are present. EXPEL is soil active and may damage these plants upon emergence.

Tolerant Ornamental Species
The species listed below are tolerant to EXPEL.

When plants are under stress (such as heat, drought, or frost damage), some cultivars of listed plants may be sensitive to EXPEL.

Tolerant Ornamental Species

Abelia *(Abelia X grandiflora)*
Arborvitae *(Thuja sp.)*
Azalea and Rhododendron *(Rhodendron sp.)*
Boxwood Species *(Buxus sp.)*
Bridal – Wreath *(Spirea sp.)*
Butterfly Bush *(Buddleia davidii)*
Crape Myrtle *(Lagerstroemia indica)*
Creeping Juniper *(Juniperus horizontalis)*
Douglas Fir *(Pseudotsuga menziesii)*
Dwarf Yaupon Holly *(Ilex vomitora 'Nana')*
Fir Species *(Fraser, Balsam, etc) (Abies fraseri)*
Juniper *(Juniperus sp.)*
Meserve Holly *(Ilex x meserveae)*
Norway Spruce *(Picea abies)*
Rose *(Rosa sp.)*
Rotunda Holly *(Ilex Rotunda)*
Southern Magnolia *(Magnolia grandiflora)*
Taxus sp. *(Yew)*

Application Sites and Instructions

Site	Application Instructions
Newly-Transplanted Container of Field Nursery Stock	1. Apply after new transplant material has formed roots and is well established. 2. Do not apply until soil has settled around transplants. 3. Direct application toward base of plant to avoid terminal and bud area of plant.
Established Container, Field Nursery Stock Plants or Landscape Plants	1. Apply at any time as directed. Spray towards the base of the plant.

Application Rate for Container and Field Grown Ornamentals

Amount to Apply (Broadcast)*	Comments
4-12 fl oz/A 0.092-0.275 fl oz/1000 sq ft	**1.** Use 8-12 fl oz/A for sedges and perennial weeds. **2.** Multiple applications may be made if needed as long as total amount applied in one year does not exceed 12 fl oz/A **3.** Direct application toward base of plants.

*Do not use on food producing trees, vines or plants

Restrictions

- Maximum single application rate is 12 fl. oz./ A (0.375 lb. a.i.)
- Maximum annual application rate is 12 fl. oz./A (0.375 lb. a.i.)

Tank Mixes and Adjuvants

Tank mixing with other pesticides registered for use on turfgrass can extend the weed control range and enhance efficacy of EXPEL for both preemergence and postemergence control. It is the pesticide user's responsibility to ensure that all products 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.

Use of adjuvants or surfactants with EXPEL can cause short-term discoloration of some turf species.

Control Solutions, Inc. does not advise use of EXPEL with surfactants or adjuvants.

Restrictions

- Establish sod production areas for three (3) months before initial treatment with EXPEL.
- Allow 35 days between applications.
- Maximum single application rate is 8 fl. oz. product (0.25 lbs a.i.) for cold season grasses and 12 fl. oz. product (0.375 lbs a.i.) for warm season grasses.
- Temporary undesirable effects can be caused by the use of surfactants with EXPEL. Perform an on-site evaluation of surfactants for effects to turfgrasses and mixture compatibility prior to use.
- Do not apply more than 0.375 lbs sulfentrazone (12.0 fl. oz. product) per acre per 12 month period. The 12 month period starts at the point of first application.
- Pre harvest interval is 3 months
- Do not feed forage or allow grazing of turf treated with EXPEL
- Use of EXPEL with surfactants is not advised unless surfactant / sulfentrazone combinations have previously proven to be safe to a particular turf variety
- Use of EXPEL mixed with or applied within 7 days of herbicides containing the active ingredient trinexapac-ethyl can result in temporary turfgrass discoloration. Applying EXPEL and trinexapac-ethyl herbicides 7 or more days apart decreases possibility of discoloration
- Do not apply EXPEL to tees or putting greens on golf courses

NON-CROP USES
For use in Railroad, Highway, Roadside, Pipeline and Utility Rights of Way, Industrial Areas, Fence Rows, and Other Listed Non-Crop Sites

Apply EXPEL to control susceptible weeds, maintain bare ground and complete vegetation control, and for residual control of germinating weeds in noncropland.

When applied as indicated on this label, the following weeds will be controlled with EXPEL:

Beggarweed,Florida *(Desmodium tortuosum)*
Chickweed, common *(Stellaria media)*
Crabgrass species *(Digitaria spp.)*
Daisy, American *(Coreopsis grand/flora)*
Dayflower, Virginia *(Commelina virginica)*
Fixweed *(Descurainia sophia)*
Groundcherry, clammy (seedling) *(Physallis heterophylla)*
Jimsonweed *(Datura stramonium)*
ALS/Triazine resistant Kochia *(Kochia scoparia)*
Lettuce, wild *(Lactuca virosa)*
Milkweed, honeyvine *(Ampelamus albidus)*
Morningglory species *(Ipomoea spp.)*
Nightshade species *(Solanum spp.)*
Palmer amaranth-*(Amaranthus-palmeri)*
Pigweed, redroot *(Amaranthus retroflexus)*
Thistle, Russian *(Salsola iberica)*
Waterhemp, common *(Amaranthus rudis)*
Carpetweed *(Mollugo verticillata)*
Copperleaf Hophornbeam *(Acalypha ostryifolia)*
Croton, tropic *(Cretan glandulosus)*
Dayflower, common *(Commelina communis)*
Dock, curly *(Rumex crispus)*
Galinsoga, hairy *(Galinsoga ciliata)*
Groundcherry, cutleaf *(Physalis angulata)*
Kochia (*Kochia scoparia)*
Lambsquarter, common *(Chenopodium album)*
Mallow, common *(Malva neglecta)*
Mexicanweed *(Caperonia castanifolia)*

Mustard species *(Brassica spp.)*
Nutsedge species *(Cyperus spp.)*
Pigweed, smooth *(Amaranthus hybridus)*
Texasweed *(Caperonia palustrus)*
Waterhemp, tall *(Amaranthus tuberculatus)*

Application can be made to non-crop use sites including:

- Railroad Rights-of-Way - including railroad yards, railroad crossings and railroad bridge abutments
- Highway, Roadside, Pipeline and Utility Rights-Of-Way - including guardrails, road shoulders, electric utility substations, pipeline pumping stations, around electric transmission towers, around distribution line poles and similar areas where complete vegetation control is needed
- Industrial Areas, Fence Rows and Other Non-Crop Sites - including production facilities, tank farms, storage areas, parking areas, lumber yards, airports, military installations, along fence rows and similar non crop sites.

Application Rates
Apply 8-12 fl. oz./acre (0.25-0.375 lb. a.i.)

Use higher rates:

- To extend length of control
- On soils with fine soil textures
- On soils with more than 2% organic matter

Do not use on soils with less than 1% organic matter (sandy soils)

Application Instructions
Apply EXPEL as a broadcast treatment at rates indicated, in enough water to obtain good coverage and to make at least 10 gallons finished spray per acre. In order to assure appropriate amounts of moisture for activation of product, best results will be obtained if EXPEL is applied in early spring, late summer or fall.

Make application with a boom and nozzle sprayer or boomless application system. Make application at spray pressure of 25 psi or below, unless the manufacturer specifies otherwise. Achieve best possible spray delivery and coverage with minimum amounts of fine spray droplets by utilizing properly chosen and adjusted nozzles, spray tips and screens.
Applications by helicopter can only be made to railroad rights of way.

Tank Mixes
Tank Mix EXPEL with burndown herbicides (such as 2,4-D, dicamba, diquat, glyphosate, etc.). It is the pesticide user's responsibility to ensure that all products 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.

Restrictions

- Do not apply more than 12.0 fl. oz. product (0.375 lbs sulfentrazone) per acre per 12 month period. The 12 month period starts at the time of first application.
- Maximum single application rate is 12 fl. oz./ A (0.375 lb. a.i.)
- Do not use on soils with less than 1% organic matter (sandy soils)
- Applications by helicopter can only be made to railroad rights of way

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Do not use or store around the home.

PESTICIDE STORAGE: Store product in original container only, away from other pesticides, fertilizer,
food or feed. Store in a cool, dry place and avoid excess heat.

PESTICIDE DISPOSAL: Waste resulting from the use of this product must be disposed of at an approved waste disposal facility.

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container.
Triple rinse container (or equivalent) promptly after emptying.

[For containers ≤ 5 gallons] Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drop for 10 seconds after the flow begins to drip. Fill the container ¼ 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. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

Steps to be taken in case material is released or spilled:
In case of release or spill, isolate area and keep unprotected persons or animals away from area. Dike and contain the spill with inert material (sand, earth, cat litter or commercial clay, 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 re-use. Keep the spill out of all sewers and open bodies of water.

LIMITATION OF WARRANTY AND LIABILITY

IMPORTANT: READ BEFORE USE. Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of Control Solutions, Inc. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, Control Solutions, Inc. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label.

LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, neither Control Solutions, Inc., the manufacturer, nor the Seller shall be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid.