

City of Santa Barbara
MATERIAL EXEMPTION REQUEST FOR PESTICIDE APPLICATION

Dept Parks IPM Coordinator Jazmin LeBlanc Phone 805-564-5513
Pesticide Applicator (employee or company) Name Parks Division, Steve Biddle Phone 805-564-5439
Application Site Cabrillo Ball Field Specific Location turfgrass

Date(s) of Application TBD during normally scheduled field closure period Date of request 7/21/2022 Product Name Change Up Active Ingredient MCPA, Floxypyr, Dicamba

SpeedZone Southern

2,4-D, Mecoprop-p, Dcamba, Carfentrazone

Number of Applications: ☒ One-time ☐ Other 2 applications

• Type: ☐ Emergency ☒ Trial ☐ Other _____

Product type: Herbicide ☒ Insecticide ☐ Fungicide ☐ Other _____

Application: ☐ Ornamental ☒ Turf ☐ Golf ☐ Vector Control ☐ Park Tree ☐ Street Tree
☐ Right of Way ☐ Vertebrate pest ☐ Other _____

Is the pesticide on the *Tiered Materials List*? ☐ No ☒ Yes If yes, provide the Tier _____

If the pesticide is not on the *Tiered Materials List*, provide the following screening information. See the IPM Strategy and the *Tiered Materials List* for instructions on screening the pesticide.

EPA Reg # 228-445 Signal Warning Estimated Tier Yellow

EPA Reg # 2217-835 **Caution** **Yellow**

Restricted ☐ No ☐ Yes/Describe _____

P Waste _____ PBT _____ WA PBT _____ Persistent _____ Mobil _____

Cancer _____ Repro _____ Neuro _____ Endocrine _____

Bird _____ Fish _____ Bees _____ Wildlife _____

☒ Attach product label and MSDS to this form.

Describe the pest problem.

Weed growth of many kinds are outgrowing major portions of the kikuyu grass in these playing fields. In a normal low impact park setting, kikuyu grass can outcompete many of our weeds and other weeds can just be mowed. But kikuyu cannot hold up well to organized sports and especially groups that wear cleats. The intense use of the turf by sports teams creates a viscous cycle of injury to the grass and reduced health, which allows more and more establishment of weed cover and weed seed banks.

These fields currently have high fluctuation of surface type and quality including bare areas, inconsistent surfaces, and some areas that are slippery where more broadleaf and clover are predominant. Low turf quality leads to field closures for renovations and unavailability of fields for the community. There are only 6 sports fields in the City parks system, so closures make a significant impact to many groups who rely on them. We have tried a number of different approaches in mechanical and cultural practices and at this point we believe we cannot overcome the challenges imposed by high wear to these sports fields without chemical weed control.

Describe the management goals and objectives for this site.

Our goal is to use low volumes of selective herbicides in fenced areato get close to a turf mixture surface that is consistent with softball, baseball, soccer, kickball, ultimate Frisbee and other programmed uses. By mixing the limited selective herbicide applications with over-seeding, full renovations, and other beneficial cultural non-chemical programs, we believe we can achieve a much higher quality and safer play field.

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What is the damage threshold for this pest at this site?

10% coverage of playing surface by invasive weeds would be our desired threshold.

Describe the monitoring of the pest and potential predators that was conducted and the control methods previously used at the site.

Previously hand weeding was tried for 1 year with limited to no success. This was also very labor intensive and costly. There are no selective 'green' alternatives. This site is inspected at a minimum 1X per week and often 2-3 times per week.

Describe how the product would be applied including frequency, concentration, and method of application.

Change Up and SpeedZone Southern would be applied with a boom sprayer following label directions at a rate of 2 pints/acre with two applications during field closure time.

What non-target impacts are anticipated?

There are no anticipated non-target impacts. Target area would be only inside a fenced area with 6' high fences.

How does the use of this product help achieve the site management goals? Note if this is curative or preventative.

The site management goal for this site is to provide a consistent playing field that can be mowed to desired heights. This turf should be mostly free of noxious weeds, healthy, and as dense as possible. This goal is both curative and preventative. In terms of curative management we are trying to reduce a major infestation of many invasive weed species to encourage and allow the transition to a majority turf-only field. In terms of preventative management, we hope to use a regular program of these 2 herbicides at a limited volume to keep weeds from going to seed and keep weeds down to a low level. We will also implement mechanical and cultural practices to prevent seed production.

How will the effectiveness of this product be monitored? Include expected results and indicators of success.

This site is walked by staff multiple times per week to check playing field, facilities, and irrigation needs. Checks will initially be daily to observe results for the first week and then go to a more normal 2 times per week inspection to monitor weed reduction and impacts to existing turf. Indicators of success include dying weeds and the spread of health, green grass.

Describe site conditions, for example consider the following: restricted access, distance from a creek or body of water, degree of runoff, site is a pesticide-free zone, etc.

The playing field areas are fenced and accessed through locked gates. No herbicides will be applied outside the fenced areas. For Cabrillo Ball Field, the nearest body of water is the Pacific Ocean with the closest location at 200 yards away. Foliar spray will only be applied under desirable conditions when there is no precipitation or high winds. No runoff to watersheds is anticipated and low volumes of active ingredients will be used.

List alternatives considered, alternatives implemented and why they were eliminated.

Hand weeding was tried for a 1 year period. This was unsuccessful due to size, types of weeds not controlled by hand picking and birds eating seeds and spreading them. This program was so costly it was not sustainable in the long term budget as well as yielding low control rates. Since turf grass is the desired species and there are currently no effective selective 'green' alternatives, this was not an option.

Justification: describe why is applying this pesticide is the best solution and why a less-hazardous chemical, non-chemical option or taking no action is not feasible.

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Due to the nature of sports play, a near monocultural turf surface is the desired playing field for group and completeive sports. We have up until this time tried to provide a quality playing surface with no chemicals and only cultural and mechanical controls. This has led to sports fields that were installed as a monoculture hybrid Bermuda to what our consultant called a weed salad. These fields have gone through multiple closures due to 30% or greater loss of any plant playing surface.

We anticipate that the improvement of turf at these fields will ultimately save our department money open the sports field to more play on the calendar by improving durability and shorter closure periods. Future renovation and maintenance of the turf will be significantly helped by having less bare ground to start over and improved density, making recovery faster and of a higher quality. There will also be reduced competition with weeds that outgrow the turf and choke it out.

Was outside expertise utilized? ☐ No ☒ Yes / Describe

Our in-house expertise includes two former Golf Course Superintendents, one former Golf Course Assistant Superintendent with experience totaling over 40 years. All 3 have CA/ DPR licenses for those periods. We also had in field consultations with experts from NuFarm agro, Corteva agro, and 2 sales representative from Sierra Pacific Turf Supply whose previous experience includes a tenure at UC Riverside turf program and consulting turf expert and former golf course Superintendent. We have utilized the vast field experience with turf and a strong emphasis on pursuing healthy soil and turf as our primary motivation to this proposed program of achieving a high quality sports field surface.

Describe future plans to prevent using the chemical again.

The product will be used as a trial to determine whether it may be valuable to use at other sites or on a programmatic basis for some athletic fields. As weed populations go down our goal is to transition to a 1.5 pint per acre rate or even lower. We also plan to use more mechanical control methods such as verti-cutting and lowering mower heights when possible to cut off seed from weeds to prevent them being viable. To ultimately be successful, we will need to employ all of the above strategies in these challenging sites.

Signatures _____
Department IPM Coordinator City IPM Coordinator

Completed by the City of Santa Barbara Staff IPM Committee

Vote Tally ____ Disposition: ☐ Approved ☐ Denied/Reason _____

If approved, follow the attached best management practices.

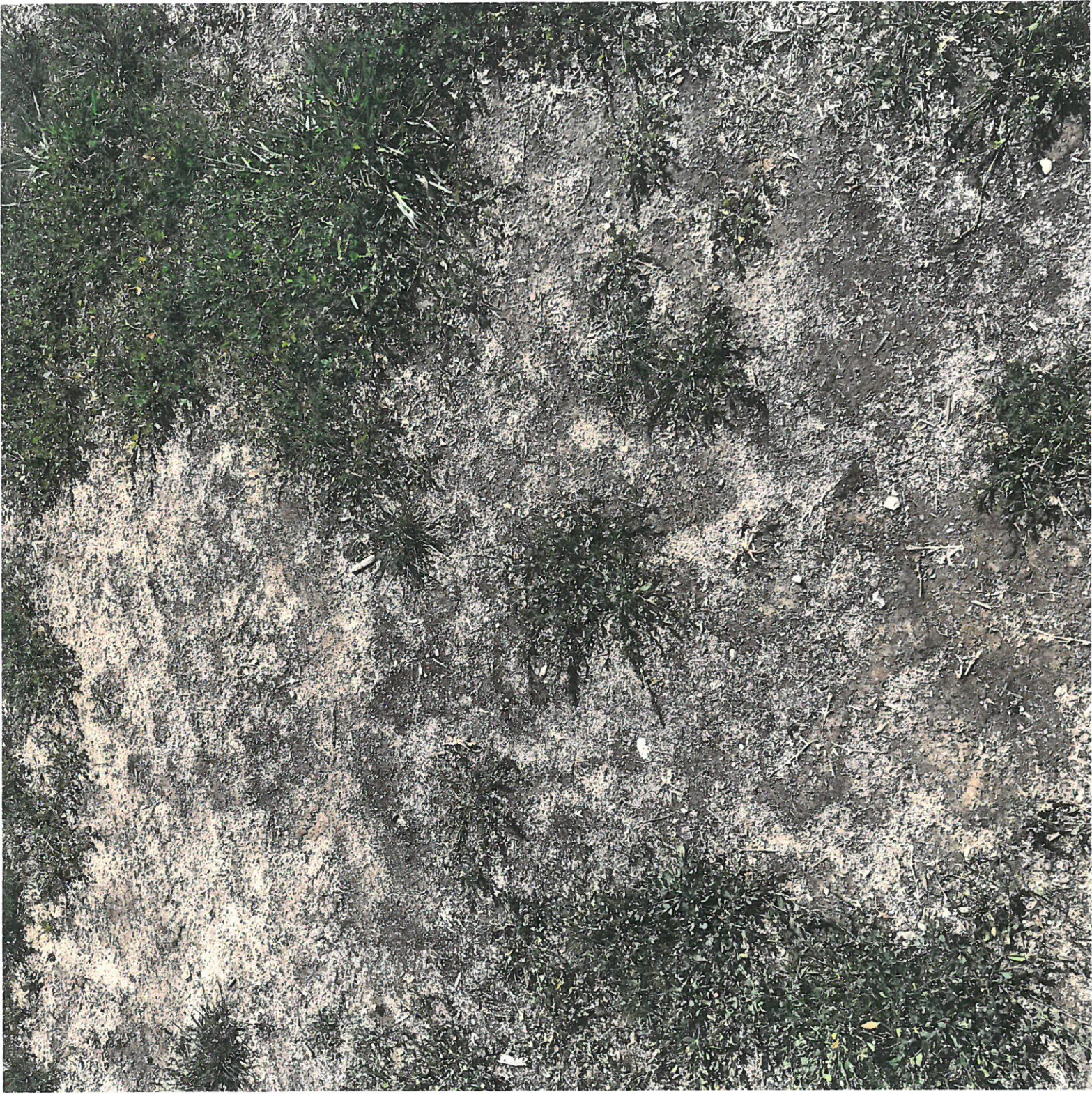
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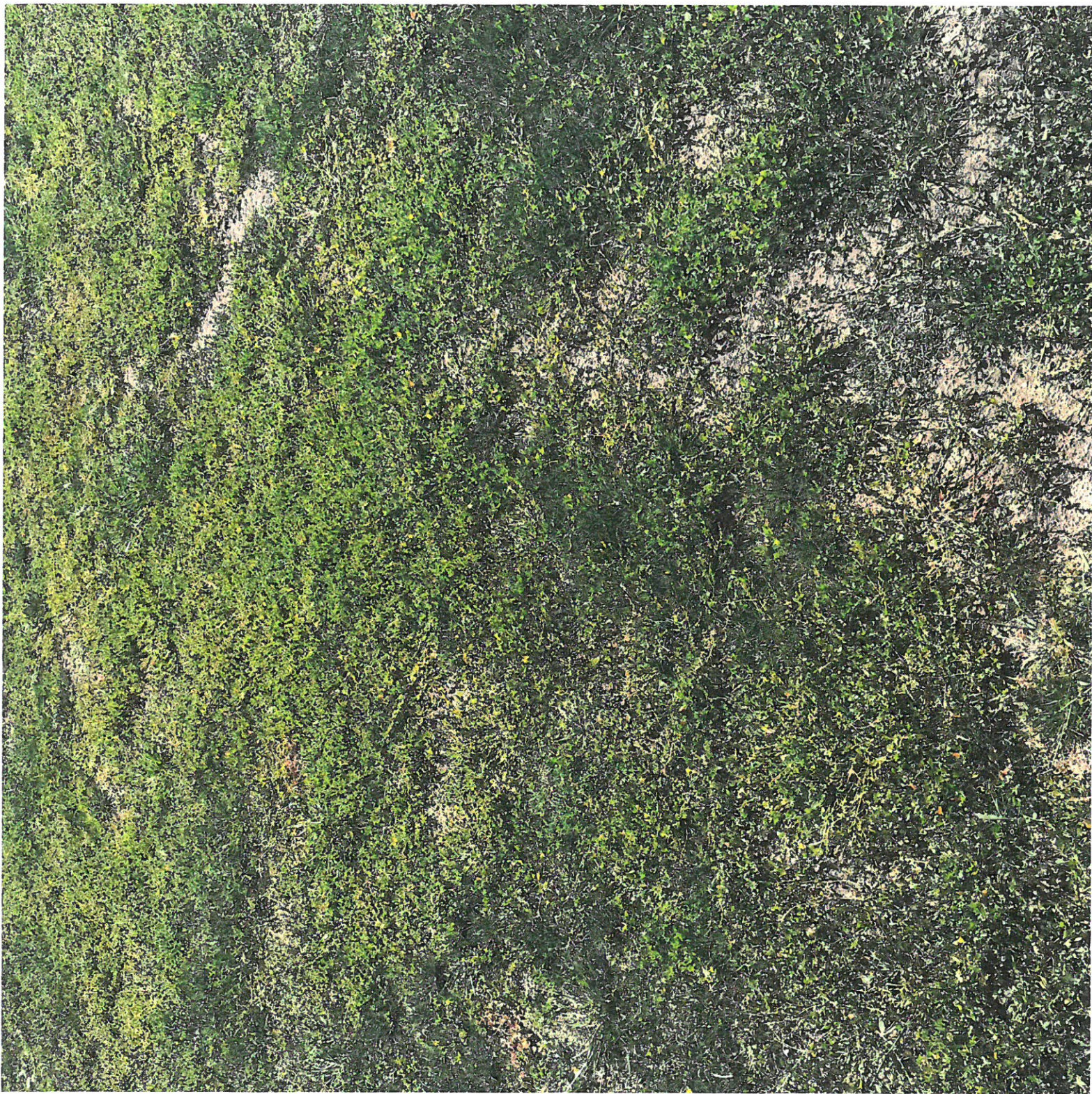
Completed by the IPM Advisory Committee

Vote Tally ____ Disposition: ☐ Approved ☐ Denied/Reason _____

If approved, follow the attached best management practices.

Comments:





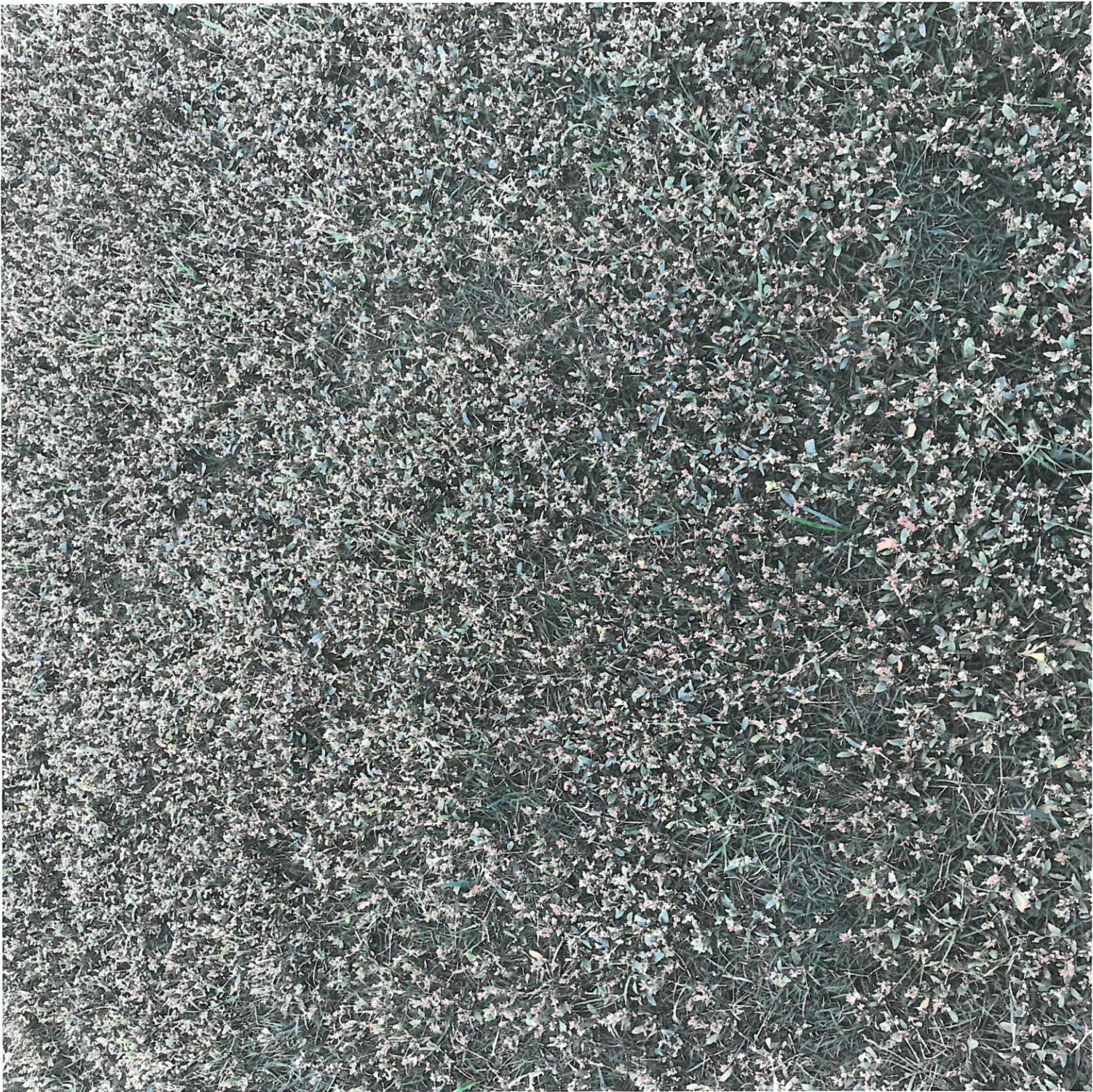


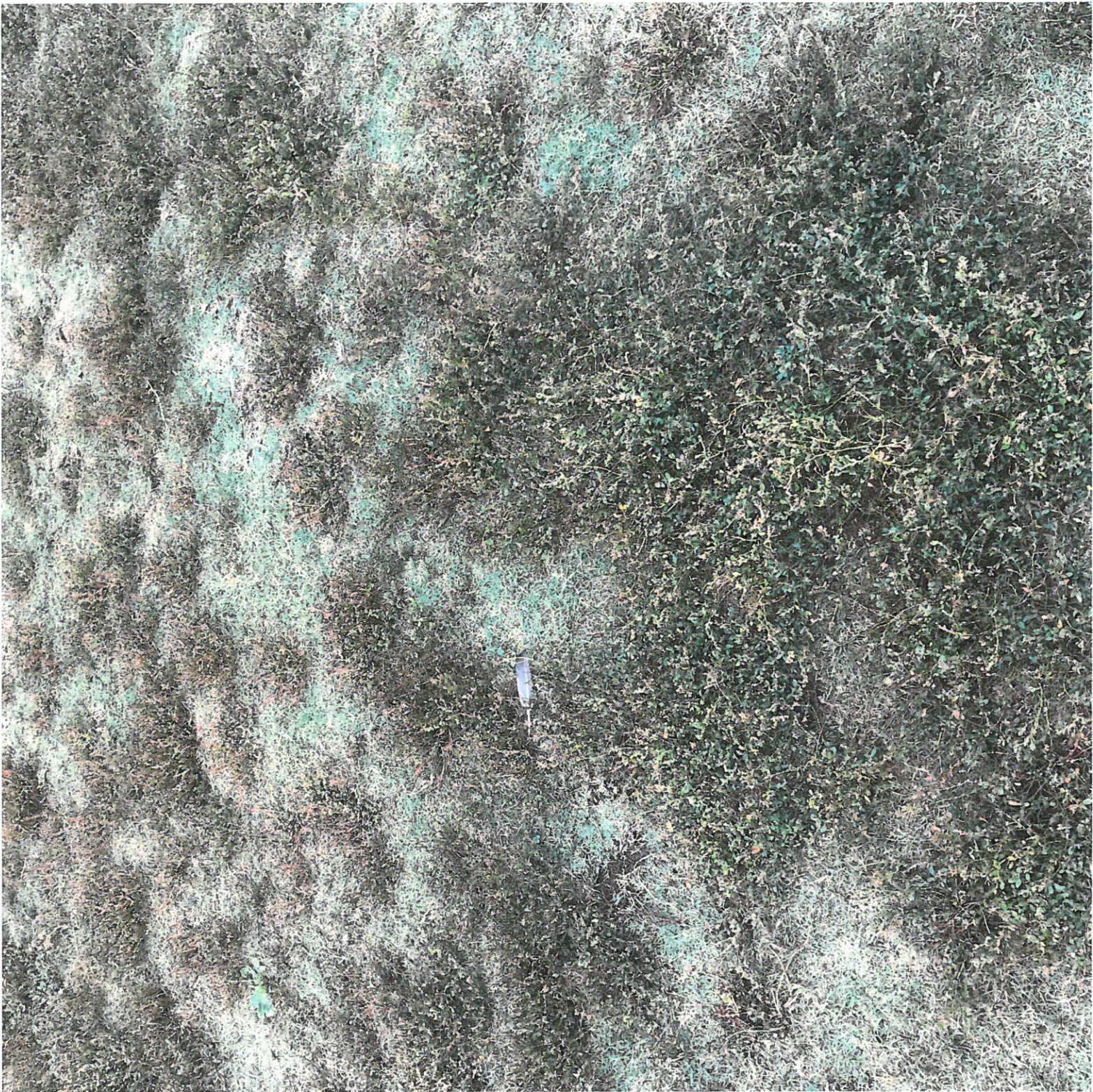
















SELECTIVE HERBICIDE

STRIKE OUT THE WEED CONTROL GAP FOR WINNING TURFGRASS.

Change Up™ premium selective herbicide combines MCPA, fluroxypyr and dicamba to deliver powerful weed control results. An excellent herbicide for warm- and cool-season turf, Change Up controls more than 200 broadleaf weeds and it starts working quickly to strike out weeds and help reduce callbacks. Plus, Change Up is ideal for any accounts that may be sensitive to the use of 2,4-D on the property.

COMPETITIVE ADVANTAGES

MAXIMUM POWER. CONVENIENT FORMULA.

- Transition zone convenience of spraying both warm- and cool-season turfgrass without having to change herbicides
- Offers the power of three proven herbicides in one convenient pre-mixed formulation
- Contains MCPA – ideal for accounts requesting a 2,4-D alternative
- Labeled for warm- and cool-season turfgrass including Bahiagrass, Creeping bentgrass, Bermudagrass, Kentucky bluegrass, Ryegrass, Fescue, Carpetgrass, Centipedegrass, Zoysiagrass and St. Augustinegrass
- Reduced callbacks following a quick visual response and excellent weed control
- Contains the pyridine herbicide fluroxypyr for unparalleled clover control
- Broad spectrum – excellent control of more than 200 broadleaf weeds including dandelion, plantain, oxalis, chickweed, thistles and other hard-to-control species
- Convenient to use – tank mix compatible with a number of liquid fertilizers and iron formulations

AT-A-GLANCE INFO

EPA REG. NO.	228-445
ACTIVE INGR.	MCPA (41.68%), fluroxypyr (4.17%), dicamba (4.17%)
FORMULATION	liquid
CHEM. FAMILY	phenoxycarboxylic acid, pyridines and benzoic acids
HRAC NO.	4
MODE OF ACT.	auxin growth regulators
SIGNAL WORD	warning
RESTRICTED	no
PACKAGE SIZE	2.5 gal (2 per case), 30 gal



RESIDENTIAL



COMMERCIAL



TURF



GOLF TURF



POST-EMERGE



SOD FARMS

MORE PRODUCTS EXCLUSIVELY FROM NUFARM

Celero
HERBICIDE

Escalade²

SureGuard SC
HERBICIDE

 **Nufarm**
Grow a better tomorrow

GROUP 4 HERBICIDE

Change Up™

Selective Herbicide

FOR SELECTIVE BROADLEAF WEED CONTROL IN ORNAMENTAL LAWNS AND TURF GRASSES.
CONTAINS MCPA, FLUROXYPYR AND DICAMBA

CONTROLS: Dandelion, Chickweed, Black medic, Knotweed, Plantain, Oxalis, Clover, Cocklebur, Thistle and many other species of broadleaf weeds listed on this label.

ACTIVE INGREDIENTS:

Dimethylamine Salt of 2-Methyl-4-Chlorophenoxyacetic Acid*	51.05%
1-Methylheptyl Ester of Fluroxypyr: [(4-amino-3-5-dichloro-6-fluoro-2-pyridinyl)oxy]acetic Acid, 1-methylheptyl ester**	6.00%
Dicamba (3,6-Dichloro-o-Anisic Acid)***	4.17%

OTHER INGREDIENTS

TOTAL:	38.78%
	100.00%

Isomer Specific Method, Equivalent to:

*2-Methyl-4-Chlorophenoxyacetic Acid	41.68%, 4.0 lbs./gal.
**[(4-amino-3-5-dichloro-6-fluoro-2-pyridinyl)oxy]acetic acid	4.17%, 0.4 lbs./gal.
***3,6-Dichloro-o-Anisic Acid.	4.17%, 0.4 lbs./gal.

DO NOT SELL, DISTRIBUTE OR USE THE PRODUCT IN NASSAU AND SUFFOLK COUNTY IN NEW YORK.

KEEP OUT OF REACH OF CHILDREN 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 INSIDE BOOKLET FOR FIRST AID AND
ADDITIONAL PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire,
or Exposure, Call CHEMTREC
(800) 424-9300
For Medical Emergencies Only,
Call (877) 325-1840

EPA Reg. No. 228-445

Manufactured for
Nufarm Americas Inc.
11901 S. Austin Ave.,
Alsip, IL 60803



Grow a better tomorrow.

Under some conditions this product may have a potential to run-off to surface water or adjacent land. Where possible, use methods which reduce soil erosion, such as no till, limited till and contour plowing; these methods also reduce pesticide run-off. Where feasible, use application techniques such as T-banding and in-furrow techniques which incorporate the pesticide into the soil. Use of vegetation filter strips along rivers, creeks, streams, wetlands, etc. or on the downhill side of fields where run-off could occur will minimize water run-off is recommended.

Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore, the likelihood of increased spray drift. Avoid spraying during conditions of low humidity and/or high temperatures.

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. 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 48 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, such as plants, soil, or water, is:

- coveralls worn over short-sleeved shirt and short pants
- chemical-resistant footwear plus socks
- chemical-resistant gloves made of any waterproof material
- chemical-resistant headgear for overhead exposure, and
- protective eyewear

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. For Turf use, the maximum number of broadcast applications per treatment site is 2 per year.

Do not allow people (other than applicator) or pets on treatment area during application. Do not enter or allow others to enter the treated area until sprays have dried.

This product is for use on Ornamental Turf Lawns (Residential, Industrial and Institutional), Parks, Cemeteries, Athletic Fields and Golf Courses (Fairways, Aprons, Tees* and Roughs); also for use on Sod Farms.

*Excluding Bentgrass Tees.

SPRAY DRIFT MANAGEMENT

Preventing spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

Apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

Apply only when the wind speed is 2-10 mph at the application site.

For groundboom application, do not apply with a nozzle height greater than 4 feet above the crop canopy.

Avoid drift of spray mist to vegetables, flowers, ornamental plants, shrubs, trees and other desirable plants. Do not use on Dichondra, nor on lawns or turf where desirable clovers are present. Avoid fine mists. Use lawn type sprayer with coarse spray as wind drift is less likely. Avoid contact with exposed feeder roots of ornamentals and trees. Do not allow the herbicide solution to mist, drip, drift, or splash from treated areas onto desirable broadleaf plants as small amounts of this product can damage sensitive plants near the treated area. If desirable plants are accidentally sprayed, immediately rinsing leaves with water may reduce or eliminate plant damage.

Maximum control of weeds will be obtained from spring or early fall applications when weeds are actively growing. The degree of weed control and duration of effect will vary with weed size and density, spray rate and coverage, and growing conditions before, during, and after the time of treatment. Use the higher rate for hard-to-control weeds. Avoid broadcast applications when air temperature exceeds 90°F. When using in small, spot treatment applications in temperatures over 90°F, turf injury may occur. Use added caution when treating Carpetgrass and St. Augustinegrass and air temperature exceeds 80°F.

APPLICATION RESTRICTIONS

- Do not apply more than 3 pints of this product per acre per application (1.5 lbs MCPA ae, 0.15 lbs Fluroxypyr ae, 0.15 lbs Dicamba ae).
- Do not apply more than 2 broadcast applications of this product to the same treatment site per year, excluding spot treatments.
- Do not apply more than 6 pints of this product per acre per year, including all broadcast and spot treatments combined.
- The minimum retreatment interval for this product is 21 days.
- Do not apply this product to lawn or turf during spring transition (green-up).
- Do not exceed specified dosages for any area; be particularly careful within the dripline of tree and other ornamental species.
- Do not apply to newly seeded grasses until well established.
- Do not apply by air.
- Do not apply this product through any type of irrigation system.

MIXING INSTRUCTIONS

Fill spray tank with water. Start agitation and slowly add the specified amount of concentrate. Maintain continuous agitation after mixing and during application. If this product is allowed to stand in tank for extended periods of time, some separation may occur. Reagitate before use.

ORNAMENTAL LAWNS AND TURF

This product may be applied by broadcast or spot treatment application methods.

Rates for Ornamental Lawns and Turf

For Bluegrass, Ryegrass and Fescue, apply 2 to 3 pints per acre. For Creeping Bentgrass use 1.25 pints per acre. For Common and Hybrid Bermudagrass, Bahiagrass, Carpetgrass, Centipedegrass and Zoysiagrass apply 1.5 to 2.5 pints per acre. For St. Augustinegrass apply 1.0 pint per acre.

Make broadcast applications of 1.25 to 3 pints per acre in 20 to 240 gallons of water per acre (or spot treatment application of 0.46 to 1.10 fl. oz. in 0.5 to 5.5 gallons of water per 1,000 square feet) to control weeds growing in turf grasses.

Lower Volume Equipment: Use as little as 5 gallons of water per acre. Use only application equipment that is capable of spreading a uniform droplet, wetting each weed surface.

NOTE: For all grasses (1) avoid double coverage resulting from overlap unless temporary turf injury can be tolerated and (2) use reduced rates if grass is stressed from heat, drought, etc.

SOD FARMS

This product is also intended for use on sod farms. This herbicide provides selective broadleaf control in warm season and cool season turfgrass established for commercial sod production.

Timing

Apply this herbicide to broadleaf weeds that are actively growing. Follow-up applications may be required for dense infestations of perennial and biennial weeds.

The application of this product to newly sodded, sprigged, or plugged grasses should be delayed until 3 to 4 weeks after the sodding, sprigging, or plugging operations. Apply this herbicide to grass seedlings after the second mowing. Also, applications to dormant Bermudagrass, dormant Zoysiagrass and dormant Bahiagrass are suggested.

Rates for Sod Farms

For Bluegrass, Ryegrass and Fescue, apply 2 to 3 pints per acre. For Creeping Bentgrass use 1.25 pints per acre. For Common and Hybrid Bermudagrass, Bahiagrass, Carpetgrass, Centipedegrass and Zoysiagrass apply 1.5 to 2.5 pints per acre. For St. Augustinegrass apply 1.0 pint per acre. Spray volume for Sod Farm application is 5 to 175 gallons per acre.

Generally, the lower application rates will provide satisfactory control of sensitive weeds. The higher application rates will be required for dense infestations of perennial weeds, for adverse/extreme environmental conditions, or for weeds beyond the appropriate growth stages.

OTHER NON-CROP AREAS

(fencerows, hedgerows, roadsides (including aprons and guard rails), ditches, rights-of-way, utility, pipelines, powerlines, railroads, airports, commercial plants, storage and lumber yards, barrier strips and firebreaks, equipment areas, nurseries and ornamental plantings, fuel tank farms, pumping stations and other similar industrial sites)

For broadcast application to control broadleaf weeds, mix at a rate of 2 to 3 pints per acre. Spray volume for these applications is 50 to 300 gallons of water per acre. Thoroughly saturate all weeds with spray mixture. Apply any time between the time when plants come into full leaf (Spring) to when the plants begin to go dormant. Best results are obtained when weeds are young and actively growing. Do not cut weeds until herbicide has translocated throughout the plant causing root death. For small broadleaf weeds, use the lower rate. Heavy, dense stands require the higher rate with high water volume.

For small (spot) applications with small tank sprayers, apply at the rate of 0.75 to 2.0 ounces of this product per gallon of water and spray to thoroughly wet all foliage.

For control of woody plants, apply to both stems and foliage any time from the time foliage is completely matured until the time plants start to go dormant. All leaves, stems and suckers must be completely wet to the ground line for effective control. Certain species are more resistant to this herbicide and may display regrowth. Mix thoroughly before spraying.

COMPATIBILITY

This product can be mixed with some liquid fertilizers or liquid iron materials. Because liquid fertilizers and liquid iron differ in pH, free ammonia content, density, salt concentration and percentage of water, a compatibility test (given below) is recommended prior to mixing in the application equipment. All regulations, either State or Federal, relating to the application of liquid fertilizers or liquid iron and this product must be strictly followed. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. The following compatibility test should always be performed prior to full-scale mixing.

If you do not agree with or do not accept any of the directions for use, the warranty disclaimers, or limitations of liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

RV042216[2]

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All other trademarks are the property of their respective owners.



SpeedZone[®]

SOUTHERN

BROADLEAF HERBICIDE FOR TURF

ACTIVE INGREDIENTS:

2,4-D, 2-ethylhexyl ester	10.49%
Mecoprop-p acid	2.66%
Dicamba acid	0.67%
Carfentrazone-ethyl	0.54%

OTHER INGREDIENTS:	85.64%
TOTAL	100.00%

THIS PRODUCT CONTAINS:

0.52 lb. 2,4-dichlorophenoxyacetic acid equivalent per gallon or 6.96%.
 0.20 lb. (+)-R-2-(2-methyl-4-chlorophenoxy) propionic acid equivalent per gallon or 2.66%.
 0.05 lb. 3,6-dichloro-o-anisic acid equivalent per gallon or 0.67%.
 0.04 lb. Ethyl α ,2-dichloro-5-[4(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]-4-fluorobenzenepropanoate or 0.54%.

Contains Petroleum Distillate.

Isomer Specific by AOAC Methods.

KEEP OUT OF REACH OF CHILDREN CAUTION

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.)



**READ THE ENTIRE LABEL FIRST.
OBSERVE ALL PRECAUTIONS AND
FOLLOW DIRECTIONS CAREFULLY.**

PRECAUTIONARY STATEMENTS

Hazards to Human and Domestic Animals

CAUTION: Harmful if absorbed through the skin. Avoid contact with skin, eyes, or clothing. Harmful if swallowed.

Personal Protective Equipment (PPE)

Some materials that are chemical resistant to this product are barrier laminate, nitrile rubber, neoprene rubber or Viton. If you want more options, follow the instructions for category E on a EPA chemical resistance category selection chart.

All mixers, loaders, applicators, flaggers, and other handlers must wear:

- long-sleeved shirt and long pants,
- shoes and socks,
- chemical resistant gloves,
- chemical resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

See engineering controls for additional requirements.

User Safety Requirements

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 Control Statements

Containers over 1 gallon and less than 5 gallons: Mixers and loaders who do not use a mechanical system (probe and pump) to transfer the contents of this container must wear coveralls or a chemical-resistant apron in addition to the other required PPE.

Containers of 5 or more gallons: Do not open-pour product from this container. A mechanical system (such as a probe and pump or spigot) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal. If the mechanical system is used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4)], the handler PPE requirements may be reduced or modified as specified in the WPS.

When handlers use closed systems or enclosed cabs 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.
- Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water.
- Users should 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.

First Aid

If swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Do not induce vomiting unless told to by a poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.
If on skin:	<ul style="list-style-type: none"> • 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:	<ul style="list-style-type: none"> • 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 eye. • Call a poison control center or doctor for treatment advice.
If inhaled:	<ul style="list-style-type: none"> • 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 treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For additional information in case of emergency, call toll free 1-877-800-5556.

NOTE TO PHYSICIAN: Contains petroleum distillate – vomiting may cause aspiration pneumonia.

Environmental Hazards

This pesticide may be toxic to fish and aquatic invertebrates and may adversely affect non-target plants. 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 aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

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.

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. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Issue Date 11-Nov-2014

Revision Date 23-Jan-2020

Version 5

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier.

Product Name SPEED ZONE® Southern Broadleaf Herbicide for Turf

Other means of identification

Product Code PBI FP 6561076

EPA Pesticide Registration Number 2217-835

Product Size 4/1 U. S. Gal.

Recommended use of the chemical and restrictions on use

Recommended Use Herbicide

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address

PBI-Gordon Corporation
P.O. Box 860350
Shawnee, KS 66286

Company Name

PBI-Gordon Corporation
P.O. Box 860350
Shawnee, KS 66286

Manufacturer

PBI-Gordon Corporation
P.O. Box 860350
Shawnee, KS 66286

Emergency telephone number

24 Hour Emergency Phone Number Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute dermal toxicity	Category 4
Skin Corrosion/Irritation Category	Category 2
Aspiration hazard	Category 1
Acute Aquatic Toxicity	Category 2
Chronic Aquatic Toxicity	Category 2
Flammable liquids	Category 4

Label elements

Emergency Overview

Signal word

Danger

Hazard statements

- Harmful in contact with skin
- Causes skin irritation
- May be fatal if swallowed and enters airways
- Toxic to aquatic life with long lasting effects
- Combustible liquid



	call a physician.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
Inhalation	Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Aspiration into lungs can produce severe lung damage. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Delayed pulmonary edema may occur. If symptoms persist, call a physician.
Ingestion	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Call a physician.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms No information available

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically. Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk is justified by the presence of additional toxic substances. Contains petroleum distillate - vomiting may cause aspiration pneumonia.

5. FIRE-FIGHTING MEASURES

<u>Suitable Extinguishing Media</u>	Dry chemical. Carbon dioxide (CO2). Alcohol resistant foam.
<u>Unsuitable extinguishing media</u>	No information available.
<u>Specific hazards arising from the chemical</u>	In the event of fire and/or explosion do not breathe fumes. Thermal decomposition can lead to release of irritating and toxic gases and vapors.
<u>Explosion data</u>	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.
<u>Special protective equipment for fire-fighters</u>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk through spilled material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak.
<u>Environmental precautions</u>	
Environmental precautions	Prevent entry into waterways, sewers, basements or confined areas Do not flush into surface water or sanitary sewer system Prevent further leakage or spillage if safe to do so Prevent product from entering drains See Section 12 for additional ecological information Avoid release to the environment Dispose of contents/container to an approved waste

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General hygiene considerations

Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Color	Amber
Odor	Esters
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not applicable	
Melting point/freezing point	<35 °F	
Boiling point / boiling range	> 93 °C / 199 °F	
Flash point	93 °C / 199 °F	Pensky-Martens Closed Cup (PMCC)
Evaporation rate	< 1	
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	0.8994	
Water solubility	Emulsifiable	
Solubility in other solvents	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known

Other Information

Liquid Density	7.45 pounds/gallon
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity

No information available.

Stability

Stable under recommended storage conditions

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization

Will not occur.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Serious eye damage/eye irritation May cause slight irritation.

Respiratory or skin sensitization Not a skin sensitizer.

Germ cell mutagenicity No information available.

Carcinogenicity The International Agency for Research on Cancer (IARC) lists chlorophenoxy herbicides in its Group 2B (limited evidence for Carcinogenicity in humans.) The US EPA has given the chlorophenoxy Herbicides 2,4-D, 2,4-DP, MCPP, and MCPA a Class D classification (not classifiable as to human carcinogenicity.) More current 2,4-D lifetime feeding studies in rats and mice did not show carcinogenic effects and a recent World Health Organization (WHO) review of 2,4-D toxicology has concluded that 2,4-D is not a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
2,4-D, 2-ethylhexyl ester 1928-43-4	-	Group 2B	-	X
R(+)-2(2 Methyl-4-chlorophenoxy)pro pionic acid (MCPP) 16484-77-8	-	Group 2B	-	X

Legend

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard May be fatal if swallowed and enters airways.

12. ECOLOGICAL INFORMATION

Ecotoxicity Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Trade Secret	-	45: 96 h Pimephales promelas mg/L LC50 flow-through 2.4: 96 h Oncorhynchus mykiss mg/L LC50 static 2.2: 96 h Lepomis macrochirus mg/L LC50 static	-	4720: 96 h Den-dronereides heteropoda mg/L LC50
2,4-D, 2-ethylhexyl ester 1928-43-4	30: 120 h Pseudokirchneriella subcapitata mg/L EC50 30: 120 h Pseudokirchneriella subcapitata mg/L EC50 static	7.8: 96 h Oncorhynchus mykiss mg/L LC50 static 11.5: 96 h Lepomis macrochirus mg/L LC50 static 6 - 8.7: 96 h Oncorhynchus mykiss mg/L LC50 flow-through	-	-
Trade Secret	500: 96 h Desmodesmus subspicatus mg/L EC50 500: 72 h Desmodesmus subspicatus mg/L EC50	1740: 96 h Pimephales promelas mg/L LC50 flow-through 1730 - 1910: 96 h Pimephales promelas mg/L LC50 static 100000 - 500000: 96 h Lepomis macrochirus µg/L LC50 static 1910000: 96 h Pimephales promelas µg/L LC50 static	EC50 = 2041.4 mg/L 5 min EC50 = 2186 mg/L 30 min EC50 = 3980 mg/L 24 h EC50 = 4400 mg/L 17 h	1897 - 2072: 48 h Daphnia magna mg/L EC50 Static 1983: 48 h Daphnia magna mg/L EC50

Transport hazard class(es)	9
Packing group	III
Special Provisions	A97, A158, A197
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D, 2-ethylhexyl ester), 9, III

IMDG	Limited quantity applies with an inner packaging less than 5 L or gross package weight less than 30 kg.
UN number	UN3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport hazard class(es)	9
Packing group	III
EmS-No.	F-A, S-F
Special Provisions	274, 335, 969
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D, 2-ETHYLHEXYL ESTER), 9, III, MARINE POLLUTANT

15. REGULATORY INFORMATION

U.S. EPA Label Information

EPA Pesticide Registration Number 2217-835

Federal Insecticide, Fungicide, Rodenticide Act Regulations

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Pesticide Label

Caution

Keep out of the reach of children

PRECAUTIONARY STATEMENTS

Hazards to Human and Domestic Animals

CAUTION: Harmful if absorbed through the skin. Avoid contact with skin, eyes, or clothing. Harmful if swallowed.

Environmental Hazards: This pesticide may be toxic to fish and aquatic invertebrates and may adversely affect non-target plants. 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 aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate. 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.

International Inventories

TSCA	Not Listed
DSL/NDSL	Not Listed
EINECS/ELINCS	Not Listed
ENCS	Not Listed
IECSC	Not Listed
KECL	Not Listed
PICCS	Not Listed
AICS	Not Listed

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

evaluating the conditions of use and designing the appropriate protective mechanisms to prevent employee exposures, property damage, or release to the environment. PBI Gordon Corporation assumes no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the product.

End of Safety Data Sheet

To summarize what we discussed via phone this week:

Your best option for controlling weeds and keeping a healthy stand of turf in your mixed stand on Bermuda and other cool season grasses is to utilize a broadleaf post emergent herbicide. Most of these herbicides require a 4 week waiting period to seed after application. However, this is still our best option since you will need to actively seed throughout the season to replenish lost turf through repeated foot traffic on the sports fields.

The best products to use would be the following:

Speedzone Southern

4 Speed XT

Change Up

My recommendation would be to rotate between Speedzone Southern and Change Up throughout the season. Change Up is available in a Quart size containers that Sierra Pacific Turf Supply can get through Monterey Lawn & Garden. The quart size will be critical since it is the only non-restricted use size in California. Please be sure to follow the labels on these products and be aware of their annual maximums and seeding interval restrictions.

2 other things: seed selection and soil minerals

Seed selection: when seeding bare areas it is important to consider the cultivar and or variety.

Sierra Pacific Turf Supply has 2 great seeds that will be ideal for sports turf.

One is Double Down. Double Down is a blend of Tetraploid ryegrass seed that is more drought and traffic resistant. It's not bulletproof...but much better than other ryegrass varieties.

Another is Jumpstart. Jumpstart is KBG and germinates at the same rate as ryegrass. This is a big deal since most KGB takes 10-14 days to germinate. Under ideal conditions, jumpstart will germinate in 3-5 days. Keep in mind it is slower to establish than ryegrass, but a great variety to consider nonetheless. This is normally available in 80/20 mixes or straight KBG.

Lastly is the Calcium content of your soil. I'm not sure what your soil conditions are. However, if they are low in Calcium, compaction now becomes not only a mechanical problem from foot traffic, but also a mineral problem. Basically soils that are deficient in Calcium can be susceptible to extreme compaction issues and make it almost impossible for seed to establish and existing grass to flourish (I.e. sports fields). So, just a reminder really. A quick indicator is if you have more grass in your chalk lines than in the actual field...you might be deficient in Ca. However, a soil test is the best way to find out. If you need one, Jeff can help you out with that.

Have a great weekend and a wonderful 4th of July!

P.s. please excuse any typos. Long week

Kind Regards,

Ryan Nichols

Sales & Marketing Director