



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

June 29, 2018

Shannon Cavanaugh
Senior Product Registration Manager
FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104

Subject: PRIA Label Amendment – IR-4 amendment to add mint, chia, and teff uses as well as the conversions and expansion of stalk and stem veg subgroup 22A; veg brassica, head and step group 5-16; brassica leafy greens subgroup 4-16B; and nut, tree, group 14-12; Petition #6E853.
Product Name: SPARTAN 4F
EPA Registration Number: 279-3220
Application Date: December 1, 2016
Decision Number: 524306, 524307, 524308

Dear Ms. Cavanaugh:

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

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

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

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Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Grant Rowland by phone at 703-347-0254, or via email at rowland.grant@epa.gov.

Sincerely,

A handwritten signature in cursive script, appearing to read "Grant Rowland".

Grant Rowland
Acting Product Manager 23
Herbicide Branch
Registration Division (7505P)
Office of Pesticide Programs

Enclosure

Supplemental Labeling



EPA Reg. No.: 279-3220
Expiration Date: June 26, 2021

ACCEPTED

06/29/2018

Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. 279-3220

CAUTION
KEEP OUT OF REACH OF CHILDREN

DIRECTIONS FOR USE

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING. ALL APPLICABLE DIRECTIONS, RESTRICTIONS AND PRECAUTIONS ON THE EPA REGISTERED LABEL ARE TO BE FOLLOWED.

This Supplemental labeling must be in the possession of the user at the time of pesticide application. Read the label affixed to the container for Spartan 4F Herbicide before applying. Carefully follow all precautionary statements and application use directions.

MINT (Spearmint, Peppermint)

SPARTAN 4F Herbicide Use Rate Table (Mint) For Dormant and New Planting Applications			
Broadcast Rate	Fluid Ounces SPARTAN 4F per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5%	4.5 – 6.0	6.0 – 8.0	8.0
1.5 - 3.0 %	6.0 – 8.0	8.0 – 10.1	10.1
>3.0 %	8.0 – 10.1	10.1 – 12.0	12.0

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories
Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.

Dormant Applications

Apply SPARTAN 4F Herbicide to established stands of dormant mint after post harvest and/or spring land cultivation has been completed and before emergence of new mint growth.

Split applications of SPARTAN 4F Herbicide may be used for preemergence sequential control of winter annuals and summer annuals. Fall applications must be applied after post harvest cultivation has been completed and spring application made after spring cultivation has been completed and before emergence of new mint growth.

Apply SPARTAN 4F in tank-mixtures with a registered burndown herbicide to control emerged weeds at the time of application. A surfactant is recommended with these tank mixtures to improve control of the emerged weeds.

SPARTAN 4F may also be applied in tank mixtures with other products registered for use in mint.

New Planting Applications

SPARTAN 4F Herbicide may be applied to new mint plantings preemergence to the weeds and mint. The rate of application should be reduced approximately twenty five percent of the rate listed for established plantings for particular soil characteristics. Refer to SPARTAN 4F Herbicide Use Rate Table (above) for the appropriate use rate for the soil type and organic matter content. The higher rates in the range are recommended for soils of pH less than 7.0.

Renovation (For use between cuttings and post harvest)

For the first application, apply the appropriate rate for the soil type and organic matter as specified by above, not to exceed 8 fluid ounces of SPARTAN 4F Herbicide per acre (0.25 pounds active ingredient per acre) as a broadcast application to the soil at dormancy to control various broadleaf weeds and grasses. At a minimum of 100 days after the first application, mow/cut the mint and remove mint from the field within 1-3 days after cutting. After removing the mint, a second broadcast application may be made at 4 fluid ounces of SPARTAN 4F Herbicide per acre (0.125 pounds active ingredient per acre). Do not make more than two applications per year. Application intervals should be no shorter than 100 days with the last application at least 55 days before harvest.

When Applied according to directions, SPARTAN 4F will provide control of:

Amaranth, Powell	Nutsedge, yellow
Bedstraw, catchweed	Pigweed, redroot
Chamomile, mayweed	Shepherdspurse
Kochia (ALS and Triazine Resistant)	Toadflax, yellow
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Nightshade, Eastern black	Waterhemp, tall

For information on other weeds not listed above, refer to Weeds Controlled section in the label.

Precautions

Dormant and New Planting: Apply SPARTAN 4F Herbicide only to dormant mint, post-harvest (renovation), or new mint plantings before new growth emerges. Applications made to mint that has emerged will result in severe injury to exposed plant tissue.

Apply only to healthy mint fields. Applications to mint under stress from disease, pests and cultural or environmental conditions may result in crop injury.

Moisture in the form of rainfall or overhead irrigation is required after application to activate the herbicide

These Crop Specific Use directions are based upon the interactive effects of SPARTAN 4F Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under Application Instructions, SPARTAN 4F Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of the label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with SPARTAN 4F Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on SPARTAN 4F Herbicide under specific local conditions.

Restrictions

- Do not use on soils classified as sand, which have less than 1% organic matter.
- Do not apply by air.
- Do not apply more than 12 fluid ounces (0.375 pound active ingredient) per acre per twelve-month period. The twelve-month period is considered to begin upon the initial SPARTAN 4F Herbicide application.
- PHI is 92 days for dormant and new planting applications.
- PHI is 55 days for renovation applications.

CHIA

SPARTAN 4F Herbicide Use Rate Table (Chia) Post-plant Preemergence Applications		
Broadcast Rate	Fluid Ounces SPARTAN 4F Herbicide per acre	
	Soil Texture	
% Organic Matter	Medium	Fine
1.5 - 3.0 %	3.0 – 5.0	4.0 – 6.0

>3.0 %	5.0 -6.0	6.0
Refer to the previous information on soil types under the MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.		

Ground and Aerial Applications

Apply SPARTAN 4F Herbicide to as a broadcast treatment, post plant pre-emerge applied treatment within 3 days after planting before crop and weeds emerge.

When applied according to directions, SPARTAN 4F will provide control of:

BROADLEAVES	
Amaranth, Palmer	<i>Amaranthus palmeri</i>
Amaranth, spiny	<i>Amaranthus, spinosus</i>
Amaranth, spleen	<i>Amaranthus dubius</i>
Jimsonweed	<i>Datura stramonium</i>
Kochia	<i>Kochia scoparia</i>
Lambsquarters, common	<i>Chenopodium album</i>
Morningglory, Entireleaf	<i>Ipomea hederacea integrisc</i>
Morningglory, Ivyleaf	<i>Ipomea hederacea hederacea</i>
Morningglory, Palmleaf	<i>Ipomea Wrightii</i>
Morningglory, purple	<i>Ipomea turbinata</i>
Morningglory, red	<i>Ipomea coccinea</i>
Morningglory, scarlet	<i>Ipomea hederifolia</i>
Morningglory, Smallflower	<i>Jacquemontia tamnifolia</i>
Morningglory, tall	<i>Ipomea, purpurea</i>
Nightshade, black	<i>Solanum nigrum</i>
Nightshade, Eastern black	<i>Solanum americanum</i>
Pigweed, redroot	<i>Amaranthus retroflexus</i>
Pigweed, smooth	<i>Amaranthus hybridus</i>
Smartweed, PA (seedling)	<i>Polygonum pensylvanicum</i>
Thistle, Russian	<i>Lactuca serriola</i>
Waterhemp, common	<i>Amaranthus rudis</i>
Waterhemp, tall	<i>Amaranthus tuberculatos</i>

Restrictions

Do not apply more than 6 fluid ounces (0.187 pounds active ingredient) per acre of Spartan 4F Herbicide per crop year.

Do not apply to soils classified as coarse. Do not apply to soils with less than 1.5% organic matter. Do not apply to soils with a pH greater than 7.6.

Do not incorporate to depths greater than 2 inches. Do not apply to frozen soils or to existing snow cover to prevent Spartan 4F Herbicide runoff from rain or snow melt that may occur following application.

Do not apply Spartan 4F Herbicide after crop emergence, if the seedling is close to the soil surface or the seed furrow is not closed properly as undesirable crop response may occur.

Do not irrigate when seedlings are close to emerging or cracking the soil surface.

TEFF

SPARTAN 4F Use Rate Table (Teff) Post-plant Preemergence Applications		
Broadcast Rate	Fluid Ounces SPARTAN 4F per acre	
	Soil Texture	
% Organic Matter	Medium	Fine
1.5 - 3.0 %	3.0 – 5.0	4.0 – 6.0
>3.0 %	5.0 -6.0	6.0
Refer to the previous information on soil types under the MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.		

Ground and Aerial Applications

Apply SPARTAN 4F to as a broadcast treatment, post plant pre-emerge applied treatment within 3 days after planting before crop and weeds emerge.

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BROADLEAVES	
Amaranth, Palmer	<i>Amaranthus palmeri</i>
Amaranth, spiny	<i>Amaranthus spinosus</i>
Amaranth, spleen	<i>Amaranthus dubius</i>
Jimsonweed	<i>Datura stramonium</i>
Kochia	<i>Kochia scoparia</i>
Lambsquarters, common	<i>Chenopodium album</i>
Morningglory, Entireleaf	<i>Ipomea hederacea integriusc</i>
Morningglory, Ivyleaf	<i>Ipomea hederacea hederacea</i>
Morningglory, Palmleaf	<i>Ipomea Wrightii</i>
Morningglory, purple	<i>Ipomea turbinata</i>
Morningglory, red	<i>Ipomea coccinea</i>
Morningglory, scarlet	<i>Ipomea hederifolia</i>
Morningglory, Smallflower	<i>Jacquemontia tamnifolia</i>
Morningglory, tall	<i>Ipomea, purpurea</i>
Nightshade, black	<i>Solanum nigrum</i>
Nightshade, Eastern black	<i>Solanum americanum</i>
Pigweed, redroot	<i>Amaranthus retroflexus</i>
Pigweed, smooth	<i>Amaranthus hybridus</i>
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