Report Title

Application for the Extension of the Exclusive Use Period for Mefentrifluconazole as Provided by FIFRA Section 3c(1)(F)(ii)

Guideline(s)

Not Applicable

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Submitter Signature: _____ **Date:** 23 Feb 2026

Typed Name of Submitter: Elizabeth Kneller

Typed Name of Company: BASF Agricultural Solutions US LLC

GOOD LABORATORY PRACTICE GLP COMPLIANCE STATEMENT

This study does not meet the definition of study under 40 CFR Part 160 and is not required to be conducted in compliance with 40 CFR part 160. As such there is no study director or sponsor.

Submitter: _____ 23 Feb 2026
Date

Typed Name of Submitter: Elizabeth Kneller

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Application for the Extension of the Exclusive Use Period for Mefentrifluconazole as Provided by FIFRA Section 3(c)(1)(F)(ii)

February 19, 2026

BASF Agricultural Solutions US LLC, the sole registrant of the proprietary fungicide active ingredient, mefentrifluconazole, is hereby petitioning the Environmental Protection Agency (EPA) for a three-year extension of exclusive use of data supporting the registration of mefentrifluconazole on minor crops, as provided under FIFRA Section 3(c)(1)(F)(ii).

Mefentrifluconazole was first registered by EPA on June 27, 2019. Therefore, based on EPA guidelines, the initial 10-year period for exclusive use of data currently extends to June 26, 2029.

BASF is hereby submitting a rationale and supporting information for 22 minor crops to establish that at least nine of these minor crops meet the criteria and qualify for extending the exclusive use period for mefentrifluconazole by 3 years to June 27, 2032.

The mefentrifluconazole-based end-use products (tradename: Revysol) used to develop the minor use data supporting the extension as described in this rationale, and on which these uses are registered are included in **Table 1.**

Table 1. Commercial products supporting this document.

Product	EPA Reg. No.	Type	lbs ai/gal
Cevya® Fungicide	7969-409	SC	3.34
Elisys® Fungicide*	7969-410	SC	1.67

*Tradename Mibelya™ Fungicide, premix also contains 1.67 lbs fluxapyroxad/gallon

The justification presented in this document is based on fulfillment of at least one of the four criteria identified in FIFRA 3c(1)(F)(ii) which states that:

"The period of exclusive data use provided under clause (i) shall be extended 1 additional year for each 3 minor uses registered after August 3, 1996, and within 7 years of the commencement of the exclusive use period, up to a total of 3 additional years for all minor uses registered by the Administrator if the Administrator, in consultation with the Secretary of Agriculture, determines that, based on information provided by an applicant for registration or a registrant, that ....

1. There are insufficient efficacious alternative registered pesticides available for the use;

2. The alternatives to the minor use pesticide pose greater risks to the environment or human health;

3. The minor use pesticide plays or will play a significant part in managing pest resistance; or

4. The minor use pesticide plays or will play a significant part in an integrated pest management program."

A summary of the 22 minor uses cited to satisfy the Criterion for extending exclusive use period is presented in **Table 2**.

Table 2. Summary of Rationale to Extend Exclusive Use for Mefentrifluconazole

Count	Minor Use Crop	Mefentri-fluconazole Use Pattern	Criteria used by EPA to determine if minor crop is counted for data exclusivity extension			
			1. *There are insufficient efficacious alternative registered pesticides available for the use*	2. *The alternatives to the pesticide use pose greater risks to the environment or human health*	3. *The minor use pesticide plays or will play a significant part in managing pest resistance*	4. *The minor use pesticide plays or will play a significant part in an integrated pest management program.*
1	Strawberry	*Strawberry* Foliar application to the canopy for powdery mildew control			✓	✓
2	Broccoli	*Leafy Vegetables Crop Group 4-16* Foliar application to the canopy for powdery mildew control			✓	✓
3	Head lettuce				✓	✓
4	Leaf lettuce				✓	✓
5	Mustard greens				✓	✓
6	Spinach				✓	✓
7	Grapefruit	*Citrus Crop Group 10-10* Foliar application to the canopy for Alternaria and melanose control			✓	✓
9	Lemon				✓	✓
10	Sweet orange				✓	✓
11	Pear	*Pear* Foliar application to the canopy for pear scab control			✓	✓

12	Sweet cherry	*Stone Fruits Crop Group 12-12* Foliar application to the canopy for Monilinia control		`	✓	✓
13	Peach				✓	✓
14	Plum				✓	✓
15	Hazelnut	*Hazelnut* Foliar application to the canopy for Eastern filbert blight control			✓	✓
16	Cucumber	*Cucurbit Vegetables Crop Group 9* Foliar application to the canopy for gummy stem blight and powdery mildew control		✓	✓	✓
17	Muskmelon			✓	✓	✓
18	Summer squash			✓	✓	✓
19	Watermelon			✓	✓	✓
20	Bell pepper	*Fruiting Vegetable Crop Group 8-10* Foliar application to the canopy for Alternaria and powdery mildew control			✓	✓
21	Non-bell pepper				✓	✓
22	Eggplant				✓	✓

Minor Crop Uses used to Satisfy the FIFRA 3c(1)(F)(ii) Criteria for Extending the Exclusive Use Period for Mefentrifluconazole

Each of the crops or group of crops listed in sections **I., II., III.** and **IV.** of this document are minor crops within EPA crop groupings for which residue studies were conducted to establish permanent tolerances (MRLs) for mefentrifluconazole.

Mefentrifluconazole offers protection to plants against key fungal pests attacking many vegetables, ornamentals, and tree fruit crops grown worldwide. The section below highlights some of these fungi and how they affect their host crops.

Powdery mildews encompass >1,000 species of ascomycete fungi with a wide host range, causing disease on thousands of plant species including key US crops. Powdery mildews affect over 10,000 plant species, including grapes, apples, berries and small fruits, cucurbits, and leafy vegetables (Kusch 2024). Causal fungi thrive in warm, dry conditions, producing white powdery growth on leaves, stems and fruits. Significant economic losses result as disease symptoms reduce host photosynthetic output and stunt growth, negatively impacting overall yield and fruit quality, leading to significant agricultural losses.

Alternaria is a globally distributed fungal genus causing leaf spots, blights, and fruit rots in numerous crops. Its host range exceeds 250 species, including horticulturally important vegetable and fruit crops such as tomato, potato, onion, brassicas, carrots, citrus, apples, and blueberries. Yield losses can reach 50–80% under favorable conditions, reducing quality and marketability. Alternaria thrives in humid, warm climates (20–30 °C) and persists on crop debris, seeds, and soil, enabling rapid spread. Besides economic damage, Alternaria produces mycotoxins that pose food safety concerns (Zhang, Liu and van der Fels-Klerx 2025). The pathogen is prevalent across temperate and subtropical regions, including the United States.

Mefentrifluconazole has been developed by BASF for control of widespread phytopathogenic fungi including Alternaria, Cercospora, Monilinia, and several powdery mildew species, among others. Mefentrifluconazole has favorable toxicology and ecotoxicology profiles and is therefore well tolerated by pollinators. These characteristics ensure suitability for use in any resistance management rotation or IPM program for the labeled pests and crops.

Mode of Action (MOA)

Mefentrifluconazole's active ingredient is a triazole fungicide classified by the Fungicide Resistance Action Committee (FRAC) as a Group 3 fungicide. Mefentrifluconazole acts by inhibiting the biosynthesis of ergosterol, a critical component of fungal cell membranes, leading to cell membrane destabilization, inhibition of growth, and eventual death of the target fungi. Specifically, mefentrifluconazole blocks membrane biosynthesis by inhibition of cytochrome P450 sterol C 14-demethylase.

Mefentrifluconazole controls a broad spectrum of diseases. This is due to its flexible molecular design, enhanced binding to target pathogens and high intrinsic activity. Its isopropanol-unit folds to assume different conformations into the binding pocket of the target C14-demethylase.

Triazole fungicides are the backbone of disease control strategies in many crops and are essential for resistance management. Each triazole acts in a slightly different way in inhibiting sterol synthesis, and spectrum of activity for different triazoles varies significantly.

Mefentrifluconazole is a unique fungicide amongst the triazole group. Unlike older triazoles on the market, mefentrifluconazole is the first isopropanol-azole. Its unique chemical structure allows the molecule to assume different conformations easily. Due to its flexible "hook", mefentrifluconazole binds to the target enzyme up to 100 times more powerfully than conventional triazole fungicides, also where target site mutations have developed (BASF internal research).

A target site mutation in the *cyp51* gene, Y136F, has been identified as being involved in the resistance mechanism of Group 3 fungicides (Délye C 1997). Fungicide sensitivity monitoring studies report that Group 3 fungicides' action are differently impacted by the presence of the Y136F mutation in target organisms (Hoffmeister M 2022). More recently, it has been reported that mefentrifluconazole sensitivity was not affected by this mutation in grape powdery mildew (*Erysiphe necator*) (**Figure 1)** (Zito 2024).

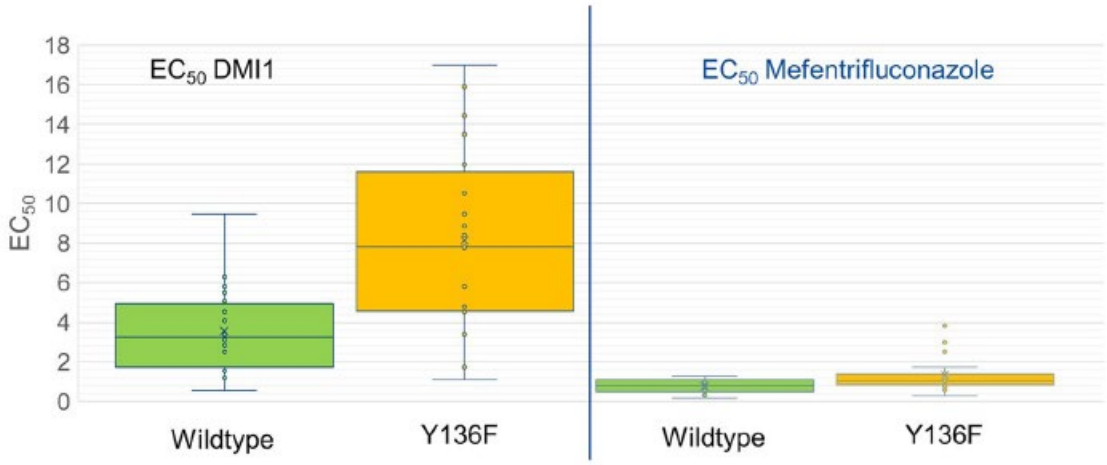

Figure 1. *Erysiphe necator* sensitivity (EC50 values) of *cyp51* isolates.
Wildtype isolates (n = 22) and those with the Y136F mutation (n = 24). For Group 3 fungicides, a limited shift in the sensitivity is present in mutated isolates; for mefentrifluconazole no or only slight effects could be observed. (Zito et al. 2024).

Mefentrifluconazole is used as a rotation partner within an integrated resistance management program where chemistries are rotated to slow or prevent resistance development (Shi, et al. 2026).

Mefentrifluconazole in the US satisfies **FIFRA 3c(1)(F)(ii) Criterion 3** guidelines: *The minor use pesticide plays or will play a significant part in managing pest resistance*.

Integrated Pest Management (IPM) Considerations

Mefentrifluconazole meets the high regulatory standards for modern crop protection compounds and features low acute toxicity to mammals, fish, birds and important beneficial arthropods. Mefentrifluconazole is of low risk to pollinators and bee populations; it also poses low risk to bee colony health and development.

The very selective activity against target pests makes mefentrifluconazole a very effective tool

in an integrated pest management program and satisfies **FIFRA 3c(1)(F)(ii) Criterion 4** guideline that *the minor use pesticide plays or will play a significant part in an integrated pest management program.*

The following are examples of the benefits mefentrifluconazole provides in the minor use crops strawberry, leafy vegetables, citrus, pome fruits, cucurbits, and fruiting vegetables. For each minor use crop the efficacy and crop safety of mefentrifluconazole has been documented in BASF studies as described below.

I. Strawberry

FIFRA 3c(1)(F)(ii) Criterion satisfied: 3 and 4

"The minor use pesticide plays or will play a significant part in managing pest resistance" **and** "*The minor use pesticide plays or will play a significant part in an integrated pest management program*."

Minor Use Crop	Minor Use Acreage[1]	Description of Specific Labeled Use Pattern	Reason why Mefentrifluconazole satisfies Criterion 3 and 4
Strawberry	227,000	Apply **Cevya® Fungicide** at 5 fl oz/A (0.13 lb ai/A) as a foliar spray in at least 10 gallons/A. No more than 3 apps/year.	**Cevya® Fungicide** (Mefentrifluconazole) is efficacious against powdery mildew in strawberry. Mefentrifluconazole has a favorable environmental profile

[1] 2022 Census of Agriculture USDA (issued Feb 2024).

In 2022, 227,000 acres of strawberries were grown in the United States (USDA 2024). Economically impactful fungal diseases include Botrytis fruit rot (*Botrytis cinerea*), powdery mildew (*Podosphaera aphanis*), and anthracnose (*Colletotrichum acutatum*).

Repeated field use of SDHI fungicides has selected for resistant *Botrytis cinerea* populations, resulting in a progressive increase in resistance over multiple growing seasons that is largely driven by target-site mutations in the *sdhB* gene. As a consequence of this emerging resistance, strawberry growers have reduced their reliance on SDHI fungicides within disease management programs (Meng-Jun Hu 2016). Mefentrifluconazole represents an alternative to SDHIs, and the solo mefentrifluconazole product Cevya provides seasonal control of powdery mildew in strawberries (**Table 3**).

Table 3. Field trial (DEV-F-2017-US-GJ5-C-01.0-US-UCA-JW2) conducted in California on strawberry variety "Monterey" against powdery mildew.

Treatment	Application Rate (fl oz/A)	% Powdery Mildew Incidence - 6 DALT
Untreated	-	34 a
Cevya	**3**	**20 b**
Cevya	**4**	**14 bc**
Cevya	**5**	**16 bc**
Merivon	8	15 bc

All treatments applied with 0.0625% v/v Cohere adjuvant

No phytotoxicity observed in this trial.

Elisys, a premix product containing mefentrifluconazole and fluxapyroxad provides seasonal control of powdery mildew, anthracnose and Botrytis in strawberries. As a FRAC Group 7/3 combination, Elisys has a fit as a partner of commonly used 9/12 products in a seasonal fungicide rotation program. Its broad-spectrum activity, favorable ecotoxicological profile, and excellent performance against key foliar diseases in strawberries make mefentrifluconazole a great fit within an integrated pest management program.

II. Leafy Vegetables

FIFRA 3c(1)(F)(ii) Criterion satisfied: 3 and 4

"The minor use pesticide plays or will play a significant part in managing pest resistance" **and** "*The minor use pesticide plays or will play a significant part in an integrated pest management program*."

Minor Use Crop	Minor Use Acreage[1]	Description of Specific Labeled Use Pattern	Reason why Mefentrifluconazole satisfies Criterion 3 and 4
Broccoli	147,000	Apply **Cevya® Fungicide** at 3 fl oz/A (0.08 lb ai/A) to 5 fl oz/A (0.13 lb ai/A) as a foliar spray in at least 10 gallons/A. No more than 3 apps/year.	**Cevya® Fungicide** (Mefentrifluconazole) is efficacious against Alternaria and powdery mildew in leafy vegetables. Mefentrifluconazole has a favorable environmental profile
Head lettuce	142,000		
Leaf lettuce	92,000		
Mustard greens	10,000		
Spinach	79,000		

[1] 2022 Census of Agriculture USDA (issued Feb 2024).

Leafy vegetable crops grow year-round in the US, but production shifts seasonally. From mid-November to early April, most U.S. lettuce comes from Southern California's desert valleys and Arizona's Yuma region, with Florida filling regional gaps in winter and spring. From late April through mid-November, production moves to Central California (Davis 2023).

Among the foliar fungal diseases of leafy vegetable crops, powdery mildew is favored by warm, dry conditions and occurs primarily on mature lettuce (UC IPM n.d.).

In Brassica crops, Alternaria leaf spot is one of the most common diseases and can severely affect yield. Alternaria in Brassicas has become worse in recent years, particularly on broccoli, and to some extent, cauliflower (Hoidal 2023).

Cevya has very good activity against Alternaria showing efficacy equal or superior to that provided by commercial standard fungicides (**Table 4**). Cevya also provides excellent control of powdery mildew (Singh 2023).

Table 4. Field trial (DEV-F-2022-US-QJ3-B-03.0-US-UGA-LN1) conducted in Georgia on lettuce against Alternaria leaf spot

Treatment	Application Rate (fl oz/A)	% Alternaria Severity - 8 DALT
Untreated	-	18.3 a
Cevya	**3**	**4 bc**
Cevya	**5**	**0.83 c**
Cevya (+ Induce)	5 (+ 0.125%)	0.67 c
Merivon	4	4 bc

3 applications, 10–20-day intervals. Induce is an adjuvant used in selected treatments.
No phytotoxicity observed in this trial.

The broad-spectrum activity, favorable ecotoxicological profile and excellent performance against key foliar diseases in leafy vegetable crops makes mefentrifluconazole a great fit in an integrated pest management program.

III. Citrus

FIFRA 3c(1)(F)(ii) Criterion satisfied: 3 and 4

"The minor use pesticide plays or will play a significant part in managing pest resistance" **and** "*The minor use pesticide plays or will play a significant part in an integrated pest management program*."

Minor Use Crop	Minor Use Acreage[1]	Description of Specific Labeled Use Pattern	Reason why Mefentrifluconazole satisfies Criterion 3 and 4
Grapefruit	45,000	Apply **Cevya® Fungicide** at 4 fl oz/A (0.10 lb ai/A) to 5 fl oz/A (0.13 lb ai/A) as a foliar spray in at least 10 gallons/A. No more than 3 apps/year.	**Cevya® Fungicide** (Mefentrifluconazole) is efficacious against Alternaria and melanose in citrus. Mefentrifluconazole has a favorable environmental profile
Lemon	82,000		
Sweet orange	287,000		

[1] 2022 Census of Agriculture USDA (issued Feb 2024).

California and Florida are the leading citrus-growing states. Fungicide applications remain a cornerstone of citrus disease management in Florida. Because many fungal pathogens infect leaves, fruit, and twigs during specific periods of susceptibility, timely fungicide applications are essential to protect developing tissues and prevent disease establishment. Fungicides including strobilurins, SDHIs, and triazoles are widely used to manage key diseases like greasy spot (*Zasmidium citrigriseum*), Alternaria brown spot (*Alternaria alternata*), citrus black spot (*Phyllosticta citricarpa*), and melanose (*Diaporthe citri*) (Dewdney 2025). Fungicide resistance is now problematic in Florida citrus groves, with documented strobilurin resistance causing control failure of Alternaria brown spot.

According to the UC IPM guidelines for citrus, anthracnose, Alternaria brown rot and Septoria spot can significantly impact citrus production in California (UC IPM n.d.). The Cevya product is labeled for Alternaria brown spot, anthracnose/post bloom fruit drop, melanose, and greasy spot.

Alternaria brown spot infects during bloom that later causes rot and fruit drop. It affects mainly tangelos, Murcotts and tangerines.

Anthracnose and post bloom fruit drop are caused by various *Colletotrichum* spp. Post bloom fruit drop is a form of anthracnose disease where the infection of flowers later causes dropping of fruit. Melanose is caused by the fungus *Diaporthe citri*. It infects during long periods of high humidity. Grapefruit, tangelo and lemon are the most seriously affected citrus species. Greasy spot is caused by the fungus *Mycosphaerella citri*. It occurs in Florida and Texas on most types of citrus, especially grapefruit, lemon, tangelos and early maturing orange varieties. According to the UC IPM guidelines website for citrus diseases, Cevya provides excellent and consistent control on Anthracnose and Alternaria rot; and good and reliable control on Septoria spot and Greasy spot (UC IPM n.d.)

IV. Pear

FIFRA 3c(1)(F)(ii) Criterion satisfied: 3 and 4

"The minor use pesticide plays or will play a significant part in managing pest resistance" **and** "*The minor use pesticide plays or will play a significant part in an integrated pest management program*."

Minor Use Crop	Minor Use Acreage[1]	Description of Specific Labeled Use Pattern	Reason why Mefentrifluconazole satisfies Criterion 3 and 4
Pear	51,000	Apply **Cevya® Fungicide** at 4 fl oz/A (0.10 lb ai/A) to 5 fl oz/A (0.13 lb ai/A) as a foliar spray. No more than 3 apps/year.	**Cevya® Fungicide** (Mefentrifluconazole) is efficacious against pear scab in pears. Mefentrifluconazole has a favorable environmental profile

[1] 2022 Census of Agriculture USDA (issued Feb 2024).

The total number of US bearing acres of pears in 2022 was 46,279 with Washington state reporting 17,228 bearing acres, followed by Oregon with 14,6661 bearing acres. California reported 8,782 bearing acres of pears in 2022 (USDA 2024).

The two most important diseases of pears in the US are scab and powdery mildew. Scab tends to occur most often in areas with wet weather in the spring such as the East Coast, Midwest and coastal areas of Washington and Oregon. Powdery mildew more frequently is an issue in the drier areas of the West Coast such as Eastern Washington. The "summer diseases" include several diseases such as bitter rot, black rot, frogeye leaf spot, flyspeck and sooty blotch. These diseases are primarily an issue for pear production in the moist, temperate conditions of the East Coast and Midwest (Sutton, et al. 2014).

According to the UC IPM guidelines website for pome diseases, Cevya provides excellent and consistent control on powdery mildew and good and reliable control on pear scab as a protectant fungicide (UC IPM n.d.).

V. Stone Fruits

FIFRA 3c(1)(F)(ii) Criterion satisfied: 3 and 4

"The minor use pesticide plays or will play a significant part in managing pest resistance" **and** "*The minor use pesticide plays or will play a significant part in an integrated pest management program*."

Minor Use Crop	Minor Use Acreage[1]	Description of Specific Labeled Use Pattern	Reason Why Mefentrifluconazole satisfies Criterion 3 and 4
Sweet cherry	111,000	Apply **Cevya® Fungicide** at 3 fl oz/A (0.08 lb ai/A) to 5 fl oz/A (0.13 lb ai/A) as a foliar spray. No more than 3 apps/year.	**Cevya® Fungicide** (Mefentrifluconazole) is efficacious against powdery mildew in sweet cherry. Mefentrifluconazole has a favorable environmental profile
Peach	114,500	Apply **Cevya® Fungicide** at 3 fl oz/A (0.08 lb ai/A) to 5 fl oz/A (0.13 lb ai/A) as a foliar spray. No more than 3 apps/year.	**Cevya® Fungicide** (Mefentrifluconazole) is efficacious against Blossom blight and Brown rot in peach. Mefentrifluconazole has a favorable environmental profile
Plum	58,000	Apply **Cevya® Fungicide** at 3 fl oz/A (0.08 lb ai/A) to 5 fl oz/A (0.13 lb ai/A) as a foliar spray. No more than 3 apps/year.	**Cevya® Fungicide** (Mefentrifluconazole) is efficacious against Blossom blight and Brown rot in plum. Mefentrifluconazole has a favorable environmental profile

[1] 2022 Census of Agriculture USDA (issued Feb 2024).

In 2022, there were a total of 96,818 bearing acres of sweet cherry reported in the US, with a total of 35,870 bearing acres of tart cherries. The leading states to produce cherries in that year were Washington (38,228 acres of sweet cherries), California (36,734 acres of sweet cherries) and Michigan with 27,072 acres of tart cherries. A total of 95,531 bearing acres of peaches were reported in 2022. California was the largest peach producing state with 38,053 acres followed by South Carolina (17,361 acres) and Georgia (7,294 acres). Plum and prune acreage is much lower with a total of 49,626 acres reported in the US in 2022 with 45,562 in California (USDA 2024).

The importance of specific diseases in stone fruits varies among crops. Powdery mildew is the most important disease in cherries, while blossom blight and brown rot tend to be the most significant diseases in peach, plum and prune plum. Many of the significant diseases in the stone fruit group such as blossom blight, rust, scab and shot hole are also significant diseases of almonds. According to the UC IPM guidelines website for plum (prune) diseases, Cevya provides excellent and consistent control on blossom and fruit Brown rot; and good and reliable control on Rust (UC IPM n.d.).

VI. Hazelnut

FIFRA 3c(1)(F)(ii) Criterion satisfied: 3 and 4

"The minor use pesticide plays or will play a significant part in managing pest resistance" **and** "*The minor use pesticide plays or will play a significant part in an integrated pest management program*."

Minor Use Crop	Minor Use Acreage[1]	Description of Specific Labeled Use Pattern	Reason why Mefentrifluconazole satisfies Criterion 3 and 4
Hazelnut	93,000	Apply **Cevya® Fungicide** at 4 fl oz/A (0.10 lb ai/A) to 5 fl oz/A (0.13 lb ai/A) as a foliar spray. No more than 3 apps/year.	**Cevya® Fungicide** (Mefentrifluconazole) is efficacious against Eastern filbert blight in hazelnut. Mefentrifluconazole has a favorable environmental profile

[1] 2022 Census of Agriculture USDA (issued Feb 2024).

Eastern filbert blight (EFB; *Anisogramma anomala*) is a severe fungal disease specific to filberts and hazelnuts (especially the European varieties) causing cankers, branch dieback, and tree death. The disease occurs in areas of filbert production such as the Pacific Northwest.

Eastern filbert blight control consists of pruning out diseased shoots and applying 4 preventative fungicide applications at 14-day intervals beginning at bud break and continuing for 8 weeks. Resistance management programs recommend alternating fungicides with different modes of action and tank mixing with multisite inhibitors. The Oregon State University (OSU) lists Cevya as one of the recommended products against EFB (Oregon State University n.d.). According to the OSU website, Cevya has an average level of control of 93% on EFB and is among the best FRAC Group 3 fungicides available for hazelnut.

Mefentrifluconazole was the 4th most applied fungicidal active ingredient against EFB and the most used product in the FRAC Group 3 fungicide in 2024 (FarmTrak™ 2024).

VII. Cucurbit Vegetables

FIFRA 3c(1)(F)(ii) Criterion satisfied: 2, 3 and 4

"*The alternatives to the minor use pesticide pose greater risks to the environment or human health"* **and** *"The minor use pesticide plays or will play a significant part in managing pest resistance"* **and** "*The minor use pesticide plays or will play a significant part in an integrated pest management program*."

Minor Use Crop	Minor Use Acreage[1]	Description of Specific Labeled Use Pattern	Reason why Mefentrifluconazole satisfies Criterion 2, 3 and 4
Cucumber	105,600	Apply **Cevya® Fungicide** at	**Cevya® Fungicide**

Muskmelon	70,000	3 fl oz/A (0.08 lb ai/A) to 5 fl oz/A (0.13 lb ai/A) as a foliar spray. No more than 3 apps/year.	(Mefentrifluconazole) is efficacious against gummy stem blight and powdery mildew in cucurbit vegetables. Mefentrifluconazole has a favorable environmental profile
Summer squash	64,000		
Watermelon	142,000		

[1] 2022 Census of Agriculture USDA (issued Feb 2024).

Cucurbits are economically significant crops grown worldwide. In the United States, annual field production reaches approximately 109 million tons across 565,871 acres. Most of this production is concentrated in Florida, Michigan, California, Texas, Georgia, and North Carolina. Many of the most important diseases in cucurbits are caused by fungi, including gummy stem blight (GSB). GSB poses a global threat to cucurbit production, significantly impacting profitability and food security. The disease reduces yields and compromises fruit quality, with reported losses ranging from 17% to 43% (A. Keinath 2001) (A. &. Keinath 1998).

Many cucurbit spray programs rely on chlorothalonil and mancozeb in nearly every spray application and add downy mildew, powdery mildew and other disease specialists as necessary. Resistance has limited the use of benzimidazoles, SDHI and QoI fungicides resulting in increasing reliance on mancozeb and chlorothalonil. Mefentrifluconazole has a more favorable ecotoxicology profile compared to chlorothalonil and mancozeb (**Table 5**).

Table 5. Ecotoxicology comparison summary of studies conducted on the Technical Grade Active Ingredient of mefentrifluconazole compared to chlorothalonil and mancozeb

Competitive Active Ingredient	Advantages of Mefentrifluconazole as compared to competitive products					
	Ecotoxicology					
	Non-target Organisms: Birds	Non-target Organisms: Mammals	Non-target Organisms: Fish	Non-target Organisms: Aquatic Invertebrate	Aquatic Vascular Plants / Non-Vascular Plants	Bees
Chlorothalonil	=	=	+	+	+	=
Mancozeb	=	+	+	+	+	=

(+) Mefentrifluconazole is considered Reduced Risk compared to this product in this category
(=) Mefentrifluconazole is considered similar to this product in this category
(-) Mefentrifluconazole is not considered Reduced Risk compared to this product in this category

Cevya has very good activity against gummy stem blight showing efficacy equal or superior to that provided by commercial standard fungicides (**Table 6**). Cevya also provides excellent control of powdery mildew, anthracnose, Alternaria blight, and Cercospora leaf spot.

Table 6. Field trial (DEV-F-2016-US-OJA-A-01.0-US-UGA-LN1) conducted in Georgia on watermelon “Crimson Sweet” against gummy stem blight *Didymella bryoniae*

Treatment	**Application Rate (fl oz/A)**	**% GSB Severity at 6 DALT**	**% GSB Severity at 6DALT**
Untreated	-	30.5 b	44.5 a
Cevya	**3.5**	**3.3 cd**	**11.0 bc**
Cevya	**5**	**0.6 d**	**2.5 c**

All treatments applied with 0.05% v/v Latron B-1956 adjuvant.
No phytotoxicity observed in this trial

The broad-spectrum activity, favorable ecotoxicological profile and excellent performance against key foliar diseases in cucurbits makes mefentrifluconazole a solid fit in an integrated pest management program. Further, the increase in resistance observed for other FRAC groups makes mefentrifluconazole important as part of an integrated pest management program.

VIII. Fruiting Vegetables

FIFRA 3c(1)(F)(ii) Criterion satisfied: 3 and 4

"The minor use pesticide plays or will play a significant part in managing pest resistance" **and** "*The minor use pesticide plays or will play a significant part in an integrated pest management program*."

Minor Use Crop	Minor Use Acreage[1]	Description of Specific Labeled Use Pattern	Reason why Mefentrifluconazole satisfies Criterion 3 and 4
Bell pepper	46,100	Apply **Cevya® Fungicide** at 3 fl oz/A (0.08 lb ai/A) to 5 fl oz/A (0.13 lb ai/A) as a foliar spray. No more than 3 apps/year.	**Cevya® Fungicide** (Mefentrifluconazole) is extremely efficacious against Alternaria and powdery mildew in cucurbit vegetables. Mefentrifluconazole has a favorable environmental profile
Eggplant	5,800		
Non-bell pepper	23,000		

[1] 2022 Census of Agriculture USDA (issued Feb 2024).

In 2022, there were a total of 46,101 acres of bell peppers, 23,119 acres of peppers, other than Bell (including chili) and 5,800 acres of eggplant and grown in the United States (USDA 2024). Many fungal diseases – including powdery mildew and *Alternaria* spp. - infect the fruit of bell peppers and eggplant. Fungicides are an effective component of disease management programs in these crops (Kaniyassery, et al. 2023, Roberts, et al. 2004).

One major foliar disease on fruiting vegetables is powdery mildew, caused by *Leveillula taurica*. This disease accounts for most of the foliar fungicide treatment acres. The *Leveillula* pathogen causes powdery mildew on many weed species and solanaceous crops, providing an abundance of inoculum. This disease is most prevalent in mid-to-late season. High humidity and moderate temperatures favor infection. Repeated fungicide applications applied in 7-day intervals are not uncommon when conditions are conducive for infection (Massire, et al. 2025).

Black mold, caused by *Alternaria alternata*, is a disease that affects ripe fruit. It commonly occurs in the late season as humidity and rainfall frequency increases. Fungicides are sometimes needed, especially in areas where there is a history of this problem. In general, 1-2 fungicide applications are recommended beginning 4-6 weeks before harvest.

Early blight, caused by *Alternaria solani*, occurs in areas with cool and wet conditions. If favorable weather conditions occur, fungicides are recommended. (UC IPM n.d.).
Cevya has very good activity against powdery mildew and anthracnose showing strong efficacy

(**Table 7**).

Table 7. Field trial (DEV-F-2020-US-PJ3-A-01.0-US-UCA-JW1) conducted in California on Bell pepper variety “Huntington” against powdery mildew and anthracnose.

Treatment	Application Rate (fl oz./A)	% Powdery Mildew Severity - 14 DALT	% Anthracnose Severity - 7 DALT
Untreated	-	28.8 a	22.5 a
Cevya	**3**	**11.3 ab**	**7.5 b**
Cevya	**5**	**5.0 b**	**2.5 b**
Cevya	10	5.0 b	2.5 b

All treatments applied with Induce adjuvant at 0.0625% v/v.
No phytotoxicity observed in this trial.

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