IR-4

New Requests for : halauxifen-methyl and florasulam.

Date of Request: 6/16/2025 8:46:00 PM

Related PRNumbers:

Name: Marcelo Moretti

Affiliation: Oregon State University

State: OR

ProjectType: ConductCropSafety

Crop Information: Narrowleaf Evergreen Tree/Shrub

Scientific Name: *Pseudotsuga menziesii*

Common Name: Christmas tree (Douglas fir)

Plant Stage: actively growing

UseSite: field

TradeName: Quelex

ActiveIngredients: halauxifen-methyl and florasulam.

Rate Per Application: 0.55 to 0.75 oz/A

Volume Per Application: 20 GPA

Number of Applications: 2

Application Interval: 30

Research Target: Phytotoxicity

Efficacy Target:

Economic Impact: Weed control is essential for Christmas tree survival during dry summers in Oregon. There are currently small number of post-emergence herbicides labeled in Christmas tree that can control wild carrot, cat's ear. These are not selective herbicides.

Labeled Products: Mission

Comments: We have documented wild carrot resistance to flazasulfuron in Oregon, and additional modes of action (halauxifen-benzyl) can help manage the resistance.

IR-4

New Requests for Herbicides: rimsulfuron

Date of Request: 6/25/2025 4:24:00 PM

Related PRNumbers:

Name: Joseph Neal

Affiliation: NC State University

State: NC

ProjectType: ConductCropSafety

Crop Information: Herbaceous Flowering Plant - Perennial

Scientific Name: *Paeonia*

Common Name: peony

Plant Stage: established, emerged

UseSite: field grown cut flowers

TradeName: several

ActiveIngredients: rimsulfuron

Rate Per Application: 2 to 4 oz prod / A

Volume Per Application: 30GPA +/-

Number of Applications: 2

Application Interval: 4 to 6 weeks

Research Target: Phytotoxicity

Efficacy Target:

Economic Impact: Two of the largest peony producers in the U.S. are plagued by hedge bindweed. This weed is widespread in the US. This registration may open the possibilities of other uses.

Labeled Products: None.

Comments: We need both crop safety and efficacy data. I have preliminary data. Efficacy: IR-4 Protocol #: 23-018 - rimsulfuron controlled bindweed. Crop Safety data generated in 2025. No significant injury to container grown peony plants from over the top foliar application of rimsulfuron 3 weeks after sprouting or 6 weeks after sprouting.

IR-4

New Requests for : glufosinate + quizalofop

Date of Request:	7/24/2025 5:21:00 PM	**Related PRNumbers:**
Name:	Marcelo Moretti	
Affiliation:	OSU	
State:	OR	
ProjectType:	ConductCropSafety	
Crop Information:	Deciduous Tree/Shrub/Vine	
	Scientific Name: *ACer sp.*	
	Common Name: Maple	
	Plant Stage: dormant and in season	
UseSite:	field grown	
TradeName:	Zalo	
ActiveIngredients:	glufosinate + quizalofop	
Rate Per Application:	22 to 43 fl oz/A	
Volume Per Application:	20	
Number of Applications:	2	
Application Interval:	30 days	
Research Target:	Phytotoxicity	
Efficacy Target:		
Economic Impact:	The effects of weed competition in in field grown nursery stock have not been documented to the best of my knowledge, but shoot growth is reduced by over 40% in container.	
Labeled Products:	Zalo Herbicide	
Comments:	The premix can help manage clethodim resistance annual bluegrass and Italian ryegrass	

IR-4

New Requests for : glufosinate + quizalofop

Date of Request: 7/24/2025 5:38:00 PM

Related PRNumbers:

Name: Marcelo L Moretti

Affiliation: Oregon State University

State: OR

ProjectType: ConductEfficacy

Crop Information: Broadleaf Evergreen/Deciduous Tree/Shrub

Scientific Name: *Pseudotsuga menziesii*

Common Name: Christmas tree (Douglas fir)

Plant Stage: dormant

UseSite: field grown

TradeName: Zalo

ActiveIngredients: glufosinate + quizalofop

Rate Per Application: 22 to 43 fl oz/A

Volume Per Application: 20

Number of Applications: 2

Application Interval: 30 days

Research Target: Phytotoxicity

Efficacy Target:

Economic Impact: Weed control improves moisture availability to trees and seedling tree survival. It also improves tree quality and plants must be weed free for sale. Limited options area available for postemergence weed control in Christmas tree. Herbicide resistance in Italian ryegrass and annual bluegrass reduce viable options.

Labeled Products: fluiazifop, sethoxydim or glufosinate as single active ingredient

Comments:

IR-4

New Requests for Herbicides: mesotrione

Date of Request: 8/5/2025 10:39:00 AM **Related PRNumbers:**

Name: Joseph Neal

Affiliation: NC State University

State: NC

ProjectType: ConductCropSafety

Crop Information: Narrowleaf Evergreen Tree/Shrub

Scientific Name: *Abies frasieri*

Common Name: Fraser fir

Plant Stage: Pre budbreak and about 6 weeks after budbreak

UseSite: Field

TradeName: several

ActiveIngredients: mesotrione

Rate Per Application: 3 to 9 oz/A

Volume Per Application: see label

Number of Applications: 2

Application Interval: 6 to 8 weeks

Research Target: Phytotoxicity

Efficacy Target:

Economic Impact: difficult to determine. Several thousand acres infested with glyphosate resistant lambsquarters.

Labeled Products: none

Comments: Glyphosate resistant weeds are a growing concern to Christmas tree growers. We have preliminary data on the safety of mesotrione applied at 3 oz/A. Growers have tested it up to 9 oz/A successfully. mesotrione has been effective on lambsquarters and little or no injury to trees. Minor discoloration was temporary and growers accepted. This treatment controlled glyphosate resistant lambsquarters without killing the desirable clover ground cover. Efficacy data on lambsquarters and other weeds is also desirable.

IR-4

New Requests for Herbicides: diclosulam

Date of Request:	8/20/2025 4:55:00 PM
Related PRNumbers:	
Name:	Joseph Neal
Affiliation:	NC State University
State:	NC
ProjectType:	ConductCropSafety
Crop Information:	Narrowleaf Evergreen Tree/Shrub
	Scientific Name: *Abies fraseri*
	Common Name: Fraser fir
	Plant Stage: Pre budbreak and about 6 weeks after budbreak
UseSite:	Field grown Christmas tr
TradeName:	Strongarm
ActiveIngredients:	diclosulam
Rate Per Application:	0.25 to 0.5 oz/A
Volume Per Application:	15 to 40
Number of Applications:	2
Application Interval:	about 6 weeks
Research Target:	Phytotoxicity
Efficacy Target:	
Economic Impact:	The need: controlling glyphosate resistant ragweed in Fraser fir production where growers are maintaining a living ground cover. Impacted acres: about 30,000 acres in NC are affected. The alternative, is weed eating, or 2,4-D amine spot treatment with backpack sprayers while shielding the trees. Labor intensive and expensive.
Labeled Products:	none that are safe after budbreak AND safe to the ground cover
Comments:	An important need for southern Appalachian Fraser fir producers due to the unique growing systems where living ground cover is maintained for erosion control and suppression of most summer annual weeds. We have 2 years of data on the safety and efficacy of this product.

IR-4

New Requests for : Topramezone

Date of Request:	8/21/2025 9:52:00 AM	**Related PRNumbers:**	
Name:	Jatinder Aulakh		
Affiliation:	Connecticut Agricultural Experiment		
State:	CT		
ProjectType:	ConductEfficacy		
Crop Information:	Narrowleaf Evergreen Tree/Shrub		
	Scientific Name: *Abies species, Picea pungens*		
	Common Name: Firs, Colarado blue spruce		
	Plant Stage: 4 and 8 weeks after budbreak		
UseSite:	Christmas tree plantatio		
TradeName:	Frequency		
ActiveIngredients:	Topramezone		
Rate Per Application:	4 and 8 floz/acre		
Volume Per Application:	20 gallons		
Number of Applications:	Two		
Application Interval:	30 days		
Research Target:	Efficacy		
Efficacy Target:	Horsenettle		
Economic Impact:	Horsenettle (Solanum carolinense) is being reported as a major weed management challenge by many Christmas tree growers from CT, MA, NY, RI, and VT. Shielded or hooded glyphosate applications have provided inconsistent control and often resulted in Christmas tree injury in the following year due to accidental contact. Frequency is labeled for PRE and POST weed control in Christmas trees but horsenettle is not listed as a weed species controlled or suppressed by Frequency herbicide.		
Labeled Products:	Glyphosate and triclopyr but no selective herbicide is available.		
Comments:	Research at Windsor Valley laboratory has shown that frequency has the potential to suppress it at the labelled rate (4 floz/acre/application) while a 2x rate can significantly improve its control without injury to most true firs, spruces, and white pine 4 weeks after budbreak or before lammas growth.		

IR-4

New Requests for : Ammoniated soap, caprylic acid, halosulfuron, SP1190, SP710

Date of Request:	8/25/2025 3:18:00 PM
Related PRNumbers:	
Name:	Debalina Saha
Affiliation:	Michigan State University
State:	MI
ProjectType:	ConductEfficacy
Crop Information:	Narrowleaf Evergreen Tree/Shrub
	Scientific Name: *Abies frasieri*
	Common Name: Fraser fir
	Plant Stage: After budbreak
UseSite:	Field
TradeName:	Finalsan, Homeplate, SedgeHammer, SP1190, SP7105
ActiveIngredients:	Ammoniated soap, caprylic acid, halosulfuron, SP1190, SP7105
Rate Per Application:	10-16 gal/100gal, 6-9 gal/100gal, 10-20 fl oz/ac, 16-32 fl oz/ac, 24-48 fl
Volume Per Application:	See label
Number of Applications:	2 applications
Application Interval:	
Research Target:	Efficacy
Efficacy Target:	Equisetum (Field Horsetail)
Economic Impact:	In the US, Christmas tree production is $250 million in sales per year and encompasses nearly 350,000 acres in production. Michigan is the third-largest producer in the nation. Equisetum (field horsetail) is a persistent tough weed issue among the Christmas tree growers, especially in the North Central region. There is no labeled herbicide available currently for Equisetum control in Christmas trees.
Labeled Products:	None
Comments:	I have conducted the 2025 North central regional equisetum efficacy trial with Finalsan, Homeplate, Sedgehammer, SP1190, SP7105 and have first-year data (Protocol# 25-021). The first year results are very promising and there is a need to repeat this efficacy trial in the coming 2026-27 year.

IR-4 **New Requests for : glufosinate + quizalofop**

Date of Request:	8/25/2025 3:39:00 PM	**Related PRNumbers:**	
Name:	Debalina Saha		
Affiliation:	Michigan State University		
State:	MI		
ProjectType:	ConductCropSafety		
Crop Information:	Narrowleaf Evergreen Tree/Shrub		
	Scientific Name: *Abies frasieri*		
	Common Name: Fraser fir (Christmas tree)		
	Plant Stage: Dormant		
UseSite:	Field		
TradeName:	Zalo		
ActiveIngredients:	glufosinate + quizalofop		
Rate Per Application:	22 to 43 fl oz/A		
Volume Per Application:	20		
Number of Applications:	2		
Application Interval:	Before budbreak and around 6 weeks after budbreak		
Research Target:	Phytotoxicity		
Efficacy Target:			
Economic Impact:	Christmas trees are grown on over 15,000 farms in U.S., covering 350,000 acres and generating $250 million in sales. Weed control is extremely important as there can be severe competition between the weeds and the tree during the establishment phase and also in the later stage, weeds can interfere with the tree pruning, shearing, spraying (management practices). In Christmas tree production, there are very limited postemergence herbicides available.		
Labeled Products:	glufosinate, fluazifop, sethoxydim as singular active ingredient		
Comments:	I have conducted a trial with Zalo for weed control efficacy in apple production and have generated very good results especially when Zalo has been combined with other preemergence herbicides. I think Zalo can be a good potential postemergence herbicide even for the ornamental (Christmas) trees in addition to fruit trees.		

IR-4

New Requests for : various

Date of Request: 9/2/2025 5:13:00 PM **Related PRNumbers:**

Name: Jeffrey Derr

Affiliation: Virginia Tech

State: VA

ProjectType: ConductCropSafety

Crop Information: Broadleaf Evergreen/Deciduous Tree/Shrub

Scientific Name: *H. macrophylla, arborescens, paniculata, quercifolia*

Common Name: Hydrangea

Plant Stage: active growth

UseSite: container

TradeName: Fortress, Gemini, Biathlon, Fuerte, FreeHand, Snapshot, Barricade

ActiveIngredients: various

Rate Per Application: as per label

Volume Per Application: most are granular, around 25 gal/A for sprays

Number of Applications: 2

Application Interval: 6 weeks

Research Target: Phytotoxicity

Efficacy Target:

Economic Impact: Hydrangea is a key nursery species. Need to determine tolerance across the 4 major species of hydrangea

Labeled Products: Very limited, some labeled for H. macrophylla only

Comments:

IR-4

New Requests for : any

Date of Request:	9/9/2025 1:41:00 PM	**Related PRNumbers:**
Name:	Manjot Sidhu	
Affiliation:	Assistant Professor & Ornamental H	
State:	ME	
ProjectType:	ConductEfficacy	
Crop Information:	Herbaceous Flowering Plant - Annual/Biennial/Peren	
	Scientific Name: *nursery crops/ garden*	
	Common Name: nursery crops/ garden	
	Plant Stage: any	
UseSite:	Greenhouse/ nursery	
TradeName:	any	
ActiveIngredients:	any	
Rate Per Application:	any	
Volume Per Application:	any	
Number of Applications:	any	
Application Interval:		
Research Target:	Efficacy	
Efficacy Target:	Horsetail	
Economic Impact:	In Maine's ornamental horticulture, horsetail's economic impact is overwhelmingly negative due to its aggressive, hard-to-eradicate growth, which causes increased costs for nurseries and gardeners.	
Labeled Products:		
Comments:		

IR-4

New Requests for : any

Date of Request: 9/9/2025 1:43:00 PM **Related PRNumbers:**

Name: Manjot Sidhu

Affiliation: Assistant Professor & Ornamental H

State: ME

ProjectType: ConductEfficacy

Crop Information: Herbaceous Flowering Plant - Annual/Biennial/Peren

Scientific Name: *Greenhouse ornamentals*

Common Name: Greenhouse ornamentals

Plant Stage: any

UseSite: INSIDE the Greenhouse

TradeName: any

ActiveIngredients: any

Rate Per Application: any

Volume Per Application: any

Number of Applications: any

Application Interval:

Research Target: Efficacy

Efficacy Target: Algae/ Liverwort/ Moss

Economic Impact: Algae, liverwort, and moss act as weeds in Maine's ornamental horticulture, causing economic damage through direct crop harm and increased production costs.

Labeled Products:

Comments: