Western IPM Center

Western Integrated Pest Management Center

U.C. ANR Building • 2801 Second Street • Davis, CA 95618 • Tel: (530) 750-1271 • www.westernipm.org

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Pesticide Re-Evaluation Division
Office of Pesticide Programs
Environmental Protection Agency
1200 Pennsylvania Ave NW.
Washington, DC 20460-0001

This comment is being provided by the Western Integrated Pest Management Center in response to the sulfonylurea dockets listed below (table 1). This comment includes information from California. Additional comments from the Western United States will be provided by the subregional comment coordinators of the Western IPM Center.

Integrated pest management (IPM) is a science-based, ecosystem level approach to pest management that identifies and reduces risks from pests and pest management using the most economical and environmentally responsible means possible. These comments on the sulfonylurea dockets are presented within the context of integrated pest management and mirror many of our previous comments. Data are drawn from the California Department of Pesticide Regulation's pesticide use reporting program which is one of the most comprehensive pesticide use databases in the United States. We utilize the PURwebGIS (v.2) platform to access the pesticide use database (http://ziram.lawr.ucdavis.edu/PURwebGIS.html#). This response represents input from extension and research weed scientists within the University of California system.

Table 1. List of dockets covered by this comment.

Registration review case name and No.	**Docket ID No.**
Bensulfuron-methyl 7216	EPA-HQ-OPP-2011-0663
Chlorimuron-ethyl 7403	EPA-HQ-OPP-2010-0478
Chlorsulfuron 0631	EPA-HQ-OPP-2012-0878
Flazasulfuron 7271	EPA-HQ-OPP-2011-0994
Foramsulfuron 7252	EPA-HQ-OPP-2012-0387
Halosulfuron-methyl 7233	EPA-HQ-OPP-2011-0745
Imazosulfuron 7281	EPA-HQ-OPP-2015-0625
Iodosulfuron-methyl-sodium 7253	EPA-HQ-OPP-2012-0717
Mesosulfuron-methyl 7263	EPA-HQ-OPP-2012-0833
Metsulfuron-methyl 7205	EPA-HQ-OPP-2011-0375
Nicosulfuron 7227	EPA-HQ-OPP-2012-0372
Orthosulfamuron 7270	EPA-HQ-OPP-2011-0438
Primisulfuron-methyl 7220	EPA-HQ-OPP-2011-0844
Prosulfuron 7235	EPA-HQ-OPP-2011-1010
Rimsulfuron 7218	EPA-HQ-OPP-2012-0178
Sulfometuron-methyl 3136	EPA-HQ-OPP-2012-0433
Sulfosulfuron 7247	EPA-HQ-OPP-2011-0434
Thifensulfuron-methyl 7206	EPA-HQ-OPP-2011-0171
Triasulfuron 7221	EPA-HQ-OPP-2012-0115
Tribenuron-methyl 7217	EPA-HQ-OPP-2010-0626
Trifloxysulfuron-Sodium 7028	EPA-HQ-OPP-2013-0409
Triflusulfuron-methyl 7236	EPA-HQ-OPP-2012-0605

Sixteen sulfonylurea herbicides included in this docket have agricultural and non-agricultural applications in California (Appendix A). Over half of the total pounds of active ingredient of these herbicides applied in California are in non-agricultural applications.

There is an overall concern among our stakeholders that the Agency is proposing the same label language on all 22 of these herbicides. The need for weed control in the Western United States and in California is different than many other parts of the country. Therefore, it is difficult to know the impacts of these broad sweeping proposed label changes on each of these sulfonylurea herbicides and their co-formulants. Instead, labels should reflect the best science known on efficacy, drift potential, and uses of each of these herbicides on a case-by-case basis.

Regarding the proposed label change that modifies spray drift mitigation language, there is little information known about droplet size efficacy. Our stakeholders are concerned that extremely coarse droplets will reduce the efficacy of the sulfonylureas used in post-emergence applications. While the increased droplet size may not reduce efficacy of those used in pre-emergence or pre-plant incorporated applications, the extent of this is unknown. This recommendation is particularly problematic, as the Agency suggests in the docket, when the sulfonylurea herbicide is used in a tank-mix with another burndown material. Our stakeholders recommend a herbicide-by-herbicide approach that is based on scientific evidence that insures that efficacy is not reduced before changes to the label are made. An important component of integrated pest management is that when pesticides are used, they are used in a way that limits resistance and drift. Losing efficacy forces growers to find alternative chemistries instead of managing their current chemistries better.

Regarding the proposed addition of herbicide resistance management to the label, the Western IPM Center's comment on docket EPA-HQ-OPP-2016-0226 outlines our suggestions to remove confusing language proposed by PRN 2016-X and PRN 2016-XX. That comment can be found at: https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OPP-2016-0226-0007&attachmentNumber=1&disposition=attachment&contentType=pdf. In that comment, one of the things we recommend is that the Agency avoid classifying weeds into low and high concern because good resistance management should be fostered, regardless of the weed being controlled or the herbicide being used to control it.

Please contact me if further information is needed.

Sincerely,

Amanda Crump
Director, Western Integrated Pest Management Center
acrump@ucanr.edu
530-750-1271

Appendix A. Pounds of active ingredient of selected sulfonylurea herbicides applied in 2014 in California (includes agricultural and non-agricultural applications). Data are aggregated from the California Department of Pesticide Regulation pesticide use reporting program using PURwebGIS v2 from University of California, Davis.

Site	Chemical (lbs. active ingredient)	Totals
Alfalfa	Halosulfuron-Methyl	186.27
	Rimsulfuron	1.19
	Tribenuron-Methyl	1.75
Almond	Rimsulfuron	4,472.50
	Tribenuron-Methyl	0.55
Apple	Rimsulfuron	24.90
Apricot	Rimsulfuron	32.21
Artichoke, Globe	Halosulfuron-Methyl	0.84
Asparagus	Halosulfuron-Methyl	42.32
Barley	Chlorsulfuron	23.71
	Tribenuron-Methyl	89.04
Barley (Forage - Fodder)	Chlorsulfuron	0.17
	Tribenuron-Methyl	21.61
Bean, Dried	Halosulfuron-Methyl	2.21
	Rimsulfuron	2.02
Bean, Succulent	Halosulfuron-Methyl	0.19
Beet	Triflusulfuron-Methyl	0.65
Bermudagrass	Halosulfuron-Methyl	15.68
Blackberry	Halosulfuron-Methyl	0.70
Blueberry	Halosulfuron-Methyl	4.44
Buildings/Non-Ag Outdoor	Sulfometuron-Methyl	40.50
Canola (Rape)	Tribenuron-Methyl	0.05
Cantaloupe	Halosulfuron-Methyl	2.33
Cherry	Rimsulfuron	241.87
Chestnut	Rimsulfuron	0.28
Citrus	Halosulfuron-Methyl	0.21
	Rimsulfuron	4.25
Corn (Forage - Fodder)	Halosulfuron-Methyl	709.19
	Nicosulfuron	220.06

	Rimsulfuron	220.30
	Tribenuron-Methyl	13.34
Corn, Human Consumption	Halosulfuron-Methyl	0.60
Cotton	Tribenuron-Methyl	0.94
County Ag Comm	Chlorsulfuron	2.81
Cucumber	Halosulfuron-Methyl	4.92
Eggplant	Halosulfuron-Methyl	0.94
Forage Hay/Silage	Chlorsulfuron	1.17
	Tribenuron-Methyl	34.42
Forest, Timberland	Sulfometuron-Methyl	28.85
Garbanzo Bean	Tribenuron-Methyl	1.07
Grape	Flazasulfuron	86.45
	Halosulfuron-Methyl	0.00
	Rimsulfuron	1,914.48
Grape, Wine	Flazasulfuron	356.96
	Rimsulfuron	2,141.80
Grapefruit	Flazasulfuron	0.88
	Rimsulfuron	55.14
Industrial Site	Sulfometuron-Methyl	0.56
Kiwi	Rimsulfuron	3.14
Kumquat	Rimsulfuron	0.03
Landscape Maintenance	Chlorsulfuron	279.38
	Flazasulfuron	0.87
	Foramsulfuron	90.38
	Halosulfuron-Methyl	775.55
	Iodosulfuron-Methyl-Sodium	1.82
	Rimsulfuron	9.92
	Sulfometuron-Methyl	8,649.27
	Sulfosulfuron	2.56
	Trifloxysulfuron-Sodium	793.96
Lemon	Rimsulfuron	195.05
Lime	Rimsulfuron	0.19
Melon	Halosulfuron-Methyl	4.35

N-Grnhs Flower	Foramsulfuron	2.82
	Halosulfuron-Methyl	3.39
	Iodosulfuron-Methyl-Sodium	0.00
	Tribenuron-Methyl	0.69
	Trifloxysulfuron-Sodium	1.37
N-Grnhs Plants In Containers	Halosulfuron-Methyl	0.01
	Rimsulfuron	0.06
N-Grnhs Transplants	Rimsulfuron	0.28
N-Outdr Flower	Halosulfuron-Methyl	4.03
N-Outdr Plants In Containers	Halosulfuron-Methyl	3.39
	Rimsulfuron	19.99
	Trifloxysulfuron-Sodium	0.66
N-Outdr Transplants	Halosulfuron-Methyl	2.45
	Rimsulfuron	8.56
Nectarine	Rimsulfuron	479.56
null	Halosulfuron-Methyl	41.54
	Nicosulfuron	16.09
	Rimsulfuron	9.48
	Tribenuron-Methyl	1.25
Oat	Chlorsulfuron	30.71
	Tribenuron-Methyl	16.40
Oat (Forage - Fodder)	Chlorsulfuron	0.92
	Halosulfuron-Methyl	0.94
	Mesosulfuron-Methyl	0.43
	Tribenuron-Methyl	149.76
Orange	Flazasulfuron	54.32
	Halosulfuron-Methyl	0.02
	Rimsulfuron	1,824.86
Pastureland	Chlorsulfuron	18.16
	Mesosulfuron-Methyl	0.36
Peach	Chlorsulfuron	6.75
	Rimsulfuron	665.59
Pear	Rimsulfuron	17.44

Pecan	Halosulfuron-Methyl	2.11
	Rimsulfuron	14.07
Pepper, Fruiting	Halosulfuron-Methyl	8.14
Pepper, Spice	Halosulfuron-Methyl	8.44
Pistachio	Halosulfuron-Methyl	59.87
	Rimsulfuron	1,453.96
Plum	Rimsulfuron	189.31
Pluot	Rimsulfuron	0.63
Pomelo	Rimsulfuron	2.33
Potato	Rimsulfuron	298.27
	Tribenuron-Methyl	0.50
Prune	Rimsulfuron	167.49
Public Health	Chlorsulfuron	0.09
	Sulfometuron-Methyl	2.25
Quince	Rimsulfuron	0.83
Rangeland	Chlorsulfuron	17.34
	Halosulfuron-Methyl	1.88
Raspberry	Halosulfuron-Methyl	0.70
Regulatory Pest Control	Chlorsulfuron	28.39
	Halosulfuron-Methyl	2.11
	Rimsulfuron	0.02
	Sulfometuron-Methyl	3.73
Research Commodity	Chlorsulfuron	0.06
	Flazasulfuron	0.16
	Halosulfuron-Methyl	0.04
	Rimsulfuron	5.67
	Tribenuron-Methyl	0.22
	Triflusulfuron-Methyl	0.01
Rice	Bensulfuron Methyl	2,327.93
	Halosulfuron-Methyl	211.12
	Imazosulfuron	1,628.86
	Orthosulfamuron	203.16
Rights Of Way	Chlorsulfuron	2,106.09

	Halosulfuron-Methyl	6.19
	Rimsulfuron	278.61
	Sulfometuron-Methyl	23,938.47
	Sulfosulfuron	36.62
	Tribenuron-Methyl	1.95
	Trifloxysulfuron-Sodium	0.17
Ryegrass	Tribenuron-Methyl	4.99
Soil Fumigation/Preplant	Halosulfuron-Methyl	18.32
	Rimsulfuron	2.44
	Tribenuron-Methyl	1.50
Sorghum (Forage - Fodder)	Halosulfuron-Methyl	34.70
Sorghum/Milo	Halosulfuron-Methyl	49.44
Squash	Halosulfuron-Methyl	0.02
Stone Fruit	Rimsulfuron	0.50
Structural Pest Control	Chlorsulfuron	49.20
	Halosulfuron-Methyl	0.01
	Rimsulfuron	0.01
	Sulfometuron-Methyl	145.26
Sudangrass	Tribenuron-Methyl	2.34
Sugarbeet	Triflusulfuron-Methyl	185.87
Sunflower	Mesosulfuron-Methyl	0.34
	Tribenuron-Methyl	14.98
Tangelo	Flazasulfuron	0.43
	Rimsulfuron	35.66
Tangerine	Flazasulfuron	9.84
	Rimsulfuron	1,061.11
Tomato	Halosulfuron-Methyl	9.71
	Rimsulfuron	48.88
Tomato, Processing	Halosulfuron-Methyl	164.08
	Rimsulfuron	1,579.29
Triticale	Mesosulfuron-Methyl	37.01
	Tribenuron-Methyl	141.42
Turf, Golf Course (Fairways, Greens,	Foramsulfuron	1.85

Rough)	Halosulfuron-Methyl	0.33
	Trifloxysulfuron-Sodium	0.26
Turf/Sod	Foramsulfuron	7.81
	Halosulfuron-Methyl	80.70
	Rimsulfuron	0.19
	Trifloxysulfuron-Sodium	3.64
Uncultivated Ag	Chlorsulfuron	10.79
	Halosulfuron-Methyl	61.86
	Rimsulfuron	20.20
	Sulfometuron-Methyl	11.98
	Tribenuron-Methyl	22.65
Uncultivated Non-Ag	Chlorsulfuron	7.99
	Rimsulfuron	2.94
	Sulfometuron-Methyl	48.38
	Tribenuron-Methyl	13.43
Unknown	Chlorsulfuron	0.11
	Flazasulfuron	0.02
	Rimsulfuron	0.10
Vertebrate Control	Chlorsulfuron	18.10
	Sulfometuron-Methyl	21.16
Walnut	Halosulfuron-Methyl	103.52
	Rimsulfuron	856.73
Water Area	Chlorsulfuron	5.81
Watermelon	Halosulfuron-Methyl	7.25
Wheat	Chlorsulfuron	6.00
	Mesosulfuron-Methyl	430.63
	Tribenuron-Methyl	1,293.10
Wheat (Forage - Fodder)	Mesosulfuron-Methyl	157.68
	Tribenuron-Methyl	2,618.85
Totals		67,615.28