ATTACHMENT 1. Master Use Summary

Table A.1.1. Master Use Summary Table for Chlorpyrifos

					Table for Cilio	<u> </u>									
	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxi Applic Num	ation		<u>~</u>	e	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (Ib a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Commence
AGRICULTURAL FARM PREMISES Livestock housing and holding areas (such as hog barns, empty chicken houses, dairy areas, milkrooms, calf hutches, calving pens and parlors).		√		Indoor general surface spray	backpack sprayer; high and low sprayer (pressure or volume)	0.075 lb a.i./ 1000 ft sq 1.2 EC, ME	[14.4] NS	NA	12	NA	NA	NS	NS		
ALFALFA		√		At plant	groundboom	1.0 G	1.0	1.0	[1] NS	1	21	24	[10] NS	Missouri only	Lower PHI permitted for EC rates 0.33 lb a.i./A (7 d) and 0.67 lb a.i./A (14 d) e.g. Reg. No. 62719-591 Stand is in production 3-5 years. Planted ¼" to ½" deep.
		✓		Foliar	aerial or ground/	1.0 EC	[4.0] NS	4.0	[4] NS	4	21	24	10		Lower PHI permitted for

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation		<u>e</u>	m	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
					broadcast, chemigation										EC rates 0.33 lb a.i./A (7 d) and 0.67 lb a.i./A (14 d) e.g., Reg. No. 62719-591 Multiple harvests (or cuttings) per year when used for feed/fodder and 1 harvest per year when grown for seed. Cuttings occur about every 30 days. Only 1 crop cycle per year but up to 9 cuttings, varies by geography.
				Total		1.0	5.0	5.0	[5] NS	5	21	24	[10] NS		Represents Missouri scenario otherwise 4.0 lb a.i./A per is max.

	Crop/Site Crop/Site	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxi Applic Num	ation		e.	m	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (Ib a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
ALMOND		✓		dormant/ delayed dormant; broadcast	aircraft, airblast	2.0 WDG, WP	2.0	NA	1	NA	NA		10	Restricted use in California.	
		√		foliar; broadcast	aircraft, airblast	2.0 WDG,WP	6.0	NA	3	NA	14		10		
		√		pre-plant, foliar; trunk spray/drenc h or pre- plant dip	handheld, backpack, drench/dip, handgun, and low pressure hand wand	2.5 (3.0/100 gal) WDG	2.5	NA	1	NA	14	24	NS		
		√		Dormant/ delayed dormant; foliar; orchard floors broadcast	ground boom, handgun, chemigation	4.0 EC*	4.0	NA	2	NA	14		10	Restricted use in California. Only one dormant application can be made.	
				Total		4.0	14.5	NA	7	NA	14		NS		Excludes nursery applications (See general "Fruits" listing)
APPLE		√		dormant/ delayed dormant; broadcast	aircraft, airblast	2.0 EC 2.0 WDG	2	2.0	1	1	NA	24/ 4 d	10d		Reflects spray drift mitigation measures.

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation		<u>e</u>	æ	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
						1.5 WP									
		✓		pre-plant, foliar; trunk spray/drenc h or pre- plant dip; ground	handheld, backpack, drench/dip, handgun, and low pressure hand wand	1.5 (1.5 lb ai/100 gal) WDG	1.5	NA	1	1	28	4d	NS	Use permitted in states east of the Rockies except Mississippi.	
				Total		2.0	3.5		2						
ASPARAGUS		✓		Foliar, pre- harvest; broadcast	aircraft, ground boom	1.0 EC, WDG	1.0	1.0	1	1	1	24	10		
		✓		Postharvest, broadcast	aircraft, ground boom	1.0 EC, WDG	2.0	2.0	2	1	1	24	10		
					granular soil band treatment ground boom	1.5 G	3.0	3.0	2	2	180	24	[10] NS	Permitted in California, the Midwest, and the Pacific Northwest 19713-505, 19713-521, 5481-525,	Do not apply more than 3.0 lb a.i./A between harvests.

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum iion Rate	Maxii Applic Num	ation		8	<u>e</u>	Geographic	Comments
Crop/Site	Resid	Agric	For	Application Type	Equipment	Rate by Formulation ¹ (Ib a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days) ³	Restrictions	Comment
														62719-34, 83222-34	
				Total		1.5 G	3.0	3.0	3	3	1	24	10	3322 3 .	
BEANS		✓		Preplant; Seed treatment	Seed Treatment	0.016-0.348 0.000798 lb ai/lb seed ME 0.013-0.272 0.000625 lb ai/lb seed WP 0.012-0.253 0.00058 lb ai/lb seed EC	NS	[0.348] NS	NS	[1] NS	NS	NS	NS	ME is SLN only for ID	Italics highlight the range of application rates depending on the number of seeds per lb and the number of seeds planted per acre. Seeding rate information provide by BEAD.4
BEEF/RANGE/ FEEDER CATTLE (MEAT)/ DAIRY CATTLE (NON- LACTATING)				Summer, late fall, spring; impregnated collar/tag	Animal treatment (ear tag)	0.0066 Ib/animal	[0.0099] NS	NA	3	NA	NS	NS	NS		Reg. No. 39039-6 Cattle ear tags are assumed to last 4-6 months Two tags per animal at 0.0033 lb a.i./tag in the summer and

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation	-	<u>~</u>	e	Geographic	Comments
Crop/Site	Resid	Agric	For	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days) ³	Restrictions	Comments
															one tag per animal at 0.0033 lb a.i./A.
BEETS (UNSPECIFIED; TABLE OR SUGAR) "grown for seed"		✓		At plant, soil band treatment	Ground boom	1.0 EC	NS	1	NS	1		24		Allowed in Oregon Court ordered buffer of 60 ft for ground chlorpyrifos application is required for "affected waterways".	Minimum Incorporation: 2 inches
		√		Preplant, soil incorporated treatment	Broadcast/ ground boom	1.9 EC	NS (2.8 ID)	NS	1	NS				Allowed in Oregon and Idaho	OR-09007; 62719-591 ID-090002; 62719-591
				Total		1.9	2.8	NS	2	NS		24			One or the other type of application.
SUGAR BEETS		✓		Preplant, soil incorporated treatment	Broadcast/ ground boom	1.0 EC 2.0 G	3.0	2.0	1	1	NA	24	10		Minimum Incorporation: 1 inch
		✓		At plant, soil band treatment	Broadcast/ ground boom	1.0 EC, WDG 2.0	3.0	2.0	1	1	30	24	10		

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum ion Rate	Maxii Applic Num	ation		<u>~</u>	m	Geographic	Comments
Crop/Site	Resid	Agrica	Fore	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² lb a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days) ³	Restrictions	comments
		✓		Postplant, soil band	Broadcast/ ground boom	G 2.0 G	3.0	2.0	1	1	30	24	10		
		✓		Post- emergence band treatment; broadcast	Broadcast/ ground boom	1.0 EC, WDG	3.0	1.0	3	1	30	24	10		
		√		broadcast	Aircraft, ground boom, chemigation	1.0 EC, WDG	3.0	1.0	3	1	30	24	10		EC is not for use in MS
				Total	J	1.0 EC 2.0 G	4.0	[4.0] NS	3	[3] NS	30	24	10		One granular application at 2.0 a.i./A and two liquid applications at 1.0 a.i./A per year. Also assumed per crop cycle.
CARROT Grown for Seed (INCLUDING TOPS)		✓		Foliar pre- bloom broadcast	aircraft, ground boom	0.94 EC	0.94	1	1	1	7	24	NA	forest	OR090011 SLN Expires: 12/31/2018 WA090011 SNL Expires: 12/31/2016

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		mum ion Rate	Maxii Applic Num	ation		e.	<u>m_</u>	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² lb a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days) ³	Restrictions	
															Carrots take two years to produce seed. All commercial production of the carrot (vegetable) takes place in the first year when the plant is nowhere near blooming.
CHERRIES		✓		dormant/ delayed dormant; broadcast	aircraft, airblast	2.0 WDG, EC 1.5 WP	2.0	NA	1	NA	NS	24	10		
		✓		foliar;	airblast	4.0 EC			_						Tart cherry only
				broadcast	aircraft	2.0	10.0	NA	5	NA	14	24	10		Reflects spray drift mitigation
		✓		Foliar, post harvest; trunk spray/drenc h	handheld, backpack, drench/dip, handgun, and low pressure hand wand	2.5 (3.0/100 gal) WDG, EC	2.5	NA	1	NA	2	24	[10] NS		Only some labels specify a 10 d MRI.
				Total		4.0	4.5 (sweet)		6						Excludes nursery applications

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		mum ion Rate	Maxir Applic Num	ation		3	<u>6</u>	Geographic	Comments
Crop/Site	Resic	Agric	For	Application Type	Equipment	Rate by Formulation ¹ (Ib a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	
							14.5 (tart only)								(See general "Fruits" listing) The foliar applications only apply to tart cherries, thus, sweet cherry scenarios (e.g., Pacific NW) annual application rate would be 4.5 lb total a.i./year.
CHRISTMAS TREE PLANTATIONS		✓		foliar ; broadcast	helicopter, orchard blast	1.0 EC, WDG, WP	3.0	NA	3	NA	[0] NS	24	7	Aerial applications via helicopter are only permitted in Washington and Oregon.	
		✓		post harvest; Stump Treatment	handheld, backpack, drench/dip, handgun, and low pressure hand wand	2.5 (3.0/100 gal) EC, WDG	2.5	NA	1	NA	NA		7		

	Residential Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation		m_	8	Geographic	Comments	
Crop/Site	Resid	Agrice	Fore	Application Type	Equipment	Rate by Formulation ¹ (Ib a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
				Total		2.5	5.5		4						
CITRUS		✓		foliar ; broadcast	airblast, ground boom	6.0 WP, WSP, EC	7.5	NA	2	NA	35 (21 for low rat es)	5d	30 (10 for low rates)	6.0 lb a.i. /A is only permitted in California and Arizona. The max single rate in other states is restricted to 4 lb a.i./A.	
		✓			aircraft	2.3 WP, WSP, EC					21	5	10	Florida, California, and potentially Texas	Aerial application used to control psyllid, the vector for citrus greening. Reflects spray drift mitigation
		✓		foliar; orchard floors broadcast	ground boom, chemigation, handheld, backpack, drench/dip, handgun, and low pressure hand wand	1.0 G*, WSP, EC	3.0	NA	3	NA	28	24/ 5 d	10		
				Total		6.0	10.5		5						Registered labels permit

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation		3	<u>~</u>	Geographic	Comments
Crop/Site	Resid	Agric	For	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours)³	MRI (days)³	Restrictions	
															both foliar and soil applications in the same orchard. Total excludes nursery applications (See general "Fruits" listing)
CLOVER (GROWN FOR SEED)		✓		Preplant	Ground boom	1.9 EC	1.9	1.9	1	1	NS	24	NA	Use only permitted in Oregon.	OR-0900100; master label: 62719-591
		√		Post-Plant Foliar	aircraft and ground boom										Either a preplant or post plant application is allowed.
COLE CROPS (EXCLUDES CAULIFLOWER AND		✓		Preplant, soil incorporated treatment	Ground boom	2.0	4.0	2.0	2	1					Min. incorporation: 2 inches
BRUSSELS SPROUTS)		✓		At plant, soil band treatment	Ground boom	EC, WDG, G	4.0	2.0	2	1	30	24	10		One granular application permitted per year.
		✓		Post plant	Ground boom					1					
		✓		Foliar Established	Ground boom					1					

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxir Applic Num	ation		e.	en_	Geographic	Comments
Crop/Site	Resid	Agric	For	Application Type	Equipment	Rate by Formulation ¹ (Ib a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days) ³	Restrictions	
				Plantings, soil sidedress treatment											
		✓		Foliar, broadcast	Aircraft, ground boom, chemigation	1.0 EC, WDG, WP	4.0	3.0	4	3	21		10		Multiple crops per year are possible in some locations.
				Total			8.0	5	6	4					Some labels restrict the yearly application rate to 3 lb a.i./A. The maximum number of crops per year is 2.
BRUSSELS SPROUTS		✓		At plant, soil band treatment	Ground boom	2.0	2.0	[2.0]							
		√		Preplant, soil incorporated treatment	Ground boom	EC; G		NS	2	1	21	24	10		Minimum incorporation is 2 inches
		√		Postplant, soil application	Ground boom	2.25 EC, G	2.25	[2.25] NS							
		√		Foliar broadcast	Aircraft, Ground boom	1.0 EC	[5.3] NS	3.0	NS	3			10		83222-20, 84930-7, 86363-3 specify a 7 day MRI. All

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation		<u>m_</u>	e	Geographic	Comments
Crop/Site	Resid	Agricu	Fore	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
															other labels specify a 10 day MRI. The PHI stated 84930-7 is conflicting [p. 4 (21 days and p. 19 (30 days)]
				Total		2.3	5.3		NS		21	24	7		Assume one application of either at plant, preplant, or postplant followed with additional foliar applications.
CAULI-FLOWER		✓		At plant, soil band treatment	Ground boom	2.0 EC 2.3 G	2.0 EC 2.25 G	NS	[1] NS	1	21		10		Only one granular application.
		✓	Preplant, soil incorporated treatment	Ground boom	2.3 G	2.3	NS	[1]	1	30, EC,	3d			Minimum incorporation is 2 inches	
		Postplant, soil application	Ground boom	2.0 EC			NS		21 G						
		✓		Foliar broadcast	aircraft, ground boom	1.0 EC	[5.3] NS	3.0	NS	3	21		10		

	Residential Crop/Site	Agricultural	Forestry	Timing;	Method/	Maximum Single Application	_	imum tion Rate	Maxir Applic Num	ation		e.	m	Geographic	Comments
Crop/Site	Resid	Agric	For	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days) ³	Restrictions	
				Total		2.3	5.3	[5.3] NS	NS	[4] NS	21	24	10		Assume one application at either plant, preplant, or postplant followed with additional foliar applications.
COMMERCIAL/IN STITUTION-AL/ INDUSTRIAL PREMISES/ EQUIP. (INDOOR)				Broadcast	Product Container	0.4373 lb a.i./100 sq ft 190.5 G	NS	NA	NS	NA	NA	NS	NS		For treatment of fire ants
Non-food areas of manufacturing, industrial, and food processing plants;				Crack and Crevice/Void	Sprayer/ Injection	0.0625 lb a.i./1000 sq ft 2.7 ME	NS	NA	NS	NA	NA	NS	NS		499-419
warehouses; ship holds; railroad boxcars.				Crack and Crevice/Spot	Sprayer/ Injection	0.0424 lb/gal ME	NS	NA	NS	NA	NA	NS	7		
COMMERCIAL/IN STITUTIONAL /INDUSTRIAL PREMISES/EQUIP				Soil broadcast	Low and High Pressure,	0.0247 lb a.i./1000 sq ft 1.1 ME	NS [13.2]	NA	NS [12]	NA	NA	NS	NS		
. (OUTDOOR) Outdoor commercial use around non-food				Directed spray	Backpack, Handgun Sprayers	0.1132 lb a.i./1000 sq ft 4.9 ME	NS	NA	NS	NA	NA	NS	NS		Specific to: Inside and outside dumpsters and

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application	_	imum tion Rate	Maxir Applic Num	ation		<u>6</u>	8	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	
areas of manufacturing, industrial, and food processing plants; warehouses; ship															other trash holding containers, trash corrals and other trash storage areas.
holds; railroad boxcars				Crack and Crevice/void/ general outdoor		0.0424 lb/gal ME [1.1]	NS [13.2]	NA	NS [12]	NA	NA	NS	7		
CONIFERS AND DECIDUOUS TREES;		√	✓	foliar ; broadcast	Ground boom	1.0 EC	3.0	NA	6	NA	7	24	7		
PLANTATION, NURSERY		√	√	foliar; stump treatment	backpack, drencher, low pressure hand wand	0.3 EC	0.3	NA	1	NA	7	24	7		
				Total		1.0	3.0	NA	6	NA	7	24	7		The total number of applications assumed is either 3 foliar applications or 2 foliar applications with one stump treatment.
CORN (ALL)		✓		Preplant	ground/ soil incorporated	3.0 EC	3.0	3.0	NS	3	NA	24/	10		19713-520, 19713-599,

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		mum ion Rate	Maxir Applic Num	ation		33	<u>6</u>	Geographic	Comments
Crop/Site	Resic	Agric	For	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	
					conservation tillage, in furrow, broadcast, chemigation, soil band	2.0 G						5 EC			33658-26, 34704-857, 72693-11, 83222-20 The minimum incorporation depth is 2 inches.
					soil incorporated aerial conservation tillage	2.0 EC, G									
		✓			ground/ conservation tillage, in furrow, broadcast, chemigation, soil band	1.0 EC 2.0 G	3.0	3.0	NS	3	21		10		19713-520
		√		Storage or preplant seed treatment	Seed treatment	0.001-0.021 0.000625 lb a.i./ lb seed WP 0.1-1.9 0.058 lb a.i./ lb seed	[7.6] NS	[1.9] NS	[?] NS	1	NS	NS	NS		Italics highlight the range of application rates depending on the number of seeds per lb and the number

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation		8	æ	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	
						FC									of seeds planted per acre. Seeding rate information provide by BEAD. ⁴
		✓		At plant	soil incorporated, conservation tillage	2.0 G	[8.1] NS	3.0	[?] NS	3	21	24	10		
		✓		Post emergence	Aerial or ground, broadcast, chemigation	1.5 EC 1.0 WDG	[8.1] NS	3.0	NS	3	21	24/	10		A brush on max single rate is permitted at 1.0 lb ai/a (72693-11)
		✓		Foliar	Aerial or ground/ broadcast, granule, seed and chemigation	1.5 EC	3.0	3.0	NS	3	21	5d (EC	10		
				Total	_	3.0	8.1	8.1	NS	4	21		10		Two granular applications are allowed with a maximum single rate of 1.0 lb a.i./A or one granular

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		mum ion Rate	Maxii Applic Num	ation		<u>8</u>	ო_	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (Ib a.i./A)	Per Year Ib a.i./A	Per CC ² lb a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours)³	MRI (days)³	Restrictions	comments
															application at 2 lb a.i./A. Total with seed treatment PHI: 21 d except Delaware and Florida (7 d)
COTTON		✓		Storage or preplant seed treatment	Seed treatment	0.8-2.2 0.00116 lb/lb seed EC	[2.2] NS	[2.2] NS	[1] NS	1	NS	NS	NS		Rates in italics highlight the potential range of application rates depending on the number of seeds per lb and the number of seeds planted per acre. Seeding rate information provide by BEAD. ²
		✓		Foliar	aerial, chemigation, ground boom	1.0 EC, WDGP	3.0	3.0	3	3	14	24	10		Except MS

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation		<u>e</u>	æ	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
				Total		1.0	3.2	3.2	3	3	14	24	10		1.6 lb a.i./A is max single rate (seed treatment) Total with seed treatment 1 crop cycle per year assumed
CRANBERRY		✓		Foliar	aircraft, ground boom/ broadcast and chemigation	1.5 EC, WDG	3.0	NA	2	NA	60	24	10	Not for use in Mississippi.	Do not apply to bogs when flooded.
CUCUMBER		√		Storage or preplant seed treatment	Commercial seed treatment	0.4 0.00058 lb/lb seed EC	NS	0.1	2	1	NS	NS	NS		Seeding rate information provide by BEAD. ² 264-932, 62719-221, CA040004 Per registrant 2 CCs per year
FIGS		✓		dormant/ delayed dormant; soil application	ground boom	2.0 WDG, EC	2.0	NA	1	NA	217	4 d	NS	Use is restricted to California only.	Incorporation to 3 inches is suggested but not required following application.

Residential	ential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application	_	imum tion Rate	Maxii Applic Num	ation	-	<u>6</u>	m	Geographic	Comments
Crop/Site	Resid	Agric	For	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
FILBERTS/ HAZELNUT		✓		dormant/ delayed dormant; broadcast	aircraft, airblast	2.0 WP	2.0	NA	1	NA	14		10		
		✓		foliar ; broadcast	aircraft, airblast	2.0 WDG, WP, EC	6.0	NA	3	NA	14	24	10		Some labels specify a retreatment interval of 10 days.
				Total		2.0	6.0	NS	3.0	NA	14	24	10		Excludes nursery applications (See general "Fruits" listing)
FOOD PROCESSING PLANT PREMISES (NONFOOD CONTACT)				When needed, crack and crevice treatment, spot treatment		0.0424 lb/ gal ME	NS	NA	NS	NA	NA	NS	7		53883-264, 84575-3 Spot Treatment: Do not exceed two square feet per individual spot.
FOREST PLANTINGS			√	Foliar, broadcast	ground boom	1.0 EC	6.0	NA	6	NA			7		
(REFORESTATION PROGRAMS)			√	Foliar, stump treatment	direct spray, drencher	0.34 EC	6.0	NA	[18] NS	NA		24	7		
(TREE FARMS, TREE PLANTATION, ETC.)				Total			6.0	NA	[18]	NA					

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum ion Rate	Maxii Applic Num	ation		<u>~</u>	m	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (Ib a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
FOREST TREES (SOFTWOODS,			✓	Foliar, broadcast	ground boom, drencher	0.61 EC	3.6	NA	[6] NS	NA	24		7		
CONIFERS)			✓	Foliar, stump treatment	direct spray	[3.6] 2.4 lb a.i./100 gal EC	3.6	NA	[1] NS	NA			7		Application rate is provided as a dilution factor.
				Total			3.6	NA	[6]	NA					
FRUITS & NUTS Non-bearing (not to bear fruit within 1 year) fruit trees innurseries (includes: almonds, citrus, filbert, apple, cherry, nectarine, peach, pear, plum, prune).		~		Foliar-Non- bearing nursery broadcast	High/low volume spay/ hand held sprayer/power sprayer	4.0 EC	4.0	NA	NS	NA	14	NS	7		For nectarines and peaches, the use is restricted to one application of no more than 3 lb a.i./A per cc. For apples, the max rate is 2 lb a.i./A per crop cycle and the use is restricted to 1 application (either canopy or trunk drench) per year. Example label, 62719-254
		√		Foliar-Non- bearing	drencher, high and low	2.0 WDG	2.0	NA	NS	1	14		7		

Residential	lential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation		<u> </u>	en_	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days) ³	Restrictions	Comments
				nursery trunk drench	pressure sprayer										
				Total		4.0	6.0								Maximum Single Rates: 3.0 (nectarines and peaches) 2.0 (apples) Maximum Yearly Rates: 3.0 (nectarines and peaches) 2.0 (apples)
GINSENG (MEDCINAL)		√		Preplant, post- emergence	Ground, soil broadcast	2.0 G	2.0	NA	1	NA	365	24	NA	Permitted in Michigan and Wisconsin	MI110006,WI11 0003) Minimum incorporation: 4 inches Application should be followed by rainfall or overhead watering. Valid until June 29, 2016.
GOLF COURSE TURF				When needed, soil broadcast/	Ground, low pressure	1.0 EC	2.0	NA	2	NA		24	NS		

Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation		<u>m</u>	<u>82</u>	Geographic	Comments	
Crop/Site	Resid	Agric	For	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	
				spot treatment											
				Foliar, broadcast,	Ground boom, handgun, low pressure and backpack	1.0 EC, G, B	2.0	NA	2	NA			NS		Chemigation not allowed for the EC
					Tractor drawn spreader, push type spreader, belly grinder	1.0 G						[24] NS	7		formulation.
				Mound treatment	Granule applicator	1.0 G	2.0	NS	2	NS		NS	7		
				Total		2.0	2.0	NA	2	NA	NS		NS		
GRAPES		✓		Dormant/ Delayed Dormant	Ground boom, broadcast, drench	1.0 WDG, EC	1.0	1	1	NA	35		NS	East of the continental divide only.	Do not use in conjunction with soil surface applications for grape borer control.
		√		(pre-bloom)	high/low spray volume	2.0 EC	2.0	1	1	NA	35	24		Permitted in Colorado, Idaho, and Washington	CO080008, ID090004, WA090002 Master label: 62719-591
		✓		Foliar	Ground/ broadcast, basal spray and	2.25 EC	2.25	1	1	NA	35		NS	Permitted east of the	

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application	_	imum tion Rate	Maxii Applic Num	ation		£(<u>e</u> _	Geographic	Comments
Crop/Site	Resic	Agric	For	Application Type	Equipment	Rate by Formulation ¹ (Ib a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	
					drench (soil treatment)									continental divide.	
		✓				1.0 EC	3.0	3	3	NA	35		NS	California	CA080010
		\		Postharvest, dormant/ delayed dormant	Ground boom, broadca st	2.0 EC	2.0	1	1	NA	NS		NS	California	CA080009
						2.25	2.25	1	1	NA	35		NS	Permitted east of the continental divide.	
						2.0	5.0	4	4	NA	NS		NS	California	
				Total		2.0	2.0	1	1	NA	NA	24	NS	Permitted in Colorado, Idaho, and Washington	
						2.25	4.25	2	2	NA	NS		NS	Permitted in Colorado, Idaho, and Washington	
GRASS FORAGE/ FODDER/HAY		√		Foliar, broadcast	Aircraft, ground boom, chemigation	1.0 EC	3.0	NA	3	NA	NS	24		Permitted in Nevada, Oregon, Washington, and Idaho	NV080004, NV940002, OR090009, WA090010, ID090003
GREENHOUSE		✓		early evening,	Total release fogger	0.029 0.0066 lb a.i./1000 sq. ft	NS	NA	NS	NA	NS	NS	2		

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxir Applic Num	ation	_	e.	m	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (Ib a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
				aerosol, fog or fumigation		PL									
HOUSEHOLD/ DOMESTIC DWELLINGS INDOOR PREMISES	✓			When needed	Bait station	0.0003 lb/bait station	NS	NA	NS	NA	NA	NS	NS		9688-67
HYBRID COTTONWOOD/ POPLAR PLANTATIONS		✓		Foliar, dormant, delayed dormant; broadcast	High volume (dilute) Low volume (concentrate)	1.9 EC	[2.0] NS	6.0	[1] NS	3		24	7	Washington	WA090004 Energy wood plantations may be harvested as often as every 2-3 years; pulpwood 5-10 years; and saw timber 15-20 years. (Arkansas production guide). In Washington the crop takes 2-8 years
LEGUME VEGETABLES		√		Preplant, soil treatment	Ground boom	1.0 EC, WDG	1.0	NA	1	NA	NS		NA		No MRI
		✓		At planting, soil treatment	Ground boom	1.0 EC, WDG	1.0	NA	1	NA	NS	24	NA		because application only once a year

	lential	Residential Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation		e.	m	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (Ib a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
				Total		1.0	1.0	NA	1	NA	NS	24	NS		Assumed either a preplant or an at plant treatment.
MINT/ PEPPERMINT/ SPEARMINT		✓		Preplant soil incorporated	Aerial or ground/ broadcast	2.0 EC, WDG	[2.0] NS	2.0	[1] NS	1	90	24	NA	No use in Mississippi.	19713-599, 33658-26, 34704-857, 67760-28, 84229-25, 84930-7, OR940027 MRI NA due to once per crop cycle application
		√		Post- emergence, Postharvest, Foliar	Chemigation, ground/ airblast	2.0 EC	2.0	2.0	[1] NS	2	90		NS	No use in Mississippi.	Postharvest application retreatment not specified on some labels.
				Total		2.0	4.0	4.0	2.0	3	90	24	NS		Labels allow one growing season application including preplant and one post-harvest

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxi Applic	ation		8	8	Geographic	Comments
Crop/Site	Resid	Agricu	Fore	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
															application per season.
MOSQUITO CONTROL; HOUSEHOLD/ DOMESTIC DWELLINGS OUTDOOR PREMISES; RECREATIONAL AREAS	✓			When needed; broadcast	Ultra low volume air and ground	0.01 EC	0.26	NA	26	NS	NA	NS	24 h	In Florida: Do not apply by aircraft unless approved by the Florida Dept of Ag.	Aerial applications may be made at altitudes ranging from 75-300 ft (see labels for specifics). For use by federal, state, tribal or local government officials or by persons certified in the appropriate category or authorized by the state or tribal lead regulatory agency.
NECTARINE		✓		dormant/ delayed dormant	airblast, handgun	3.0 WDG, EC	3.0	NA	1	NA	NS	24/ 4d	10		83222-20 others at 2 lb a.i./a

	ة Residential Agricultural	ıltural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation		3	3	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (Ib a.i./A)	Per Year Ib a.i./A	Per CC ² lb a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
				broadcast	Aircraft	2.0 WDG, EC									Updated to reflect spray drift mitigation.
		√		pre-plant, foliar; trunk spray/drenc h or pre- plant dip	Handgun, low pressure backpack, dip	2.5 (3.0/100 gal) WDG, EC	2.5	NA	1	NA	14		5		There is no application retreatment interval specified on some of the label. The application rate is provided as a dilution factor.
				Total		3.0	5.5	NA	2	NA					Some labels limit the amount a.i./A per year. Multiple types of applications can occur such as preplant, trunk drench and dormant, delayed dormant applications. Excludes nursery applications

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation	_	m	8	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
															(See general "Fruits" listing)
NONAGRICULTUR AL OUTDOOR BUILDINGS/STRU CTURES to and around outside surfaces of nonresidential buildings and structures. Permitted areas of use include fences, pre- construction foundations, refuse dumps, outside of walls, and other areas where pests congregate or have been seen NURSERY-STOCK:				Outdoor general surface/ Band (may be better if called perimeter)	Ground sprayer/ band sprayer	1.0 EC	NS	NA	NS	NA	NA	NS	NS		
Ornamental nursery stock annuals, perennials and woody plants being grown in				Dormant/ Delayed Dormant	high spray	3.0 EC	3.0	NA	1	NA		24	NS		

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxir Applic Num	ation		£(<u>e</u> _	Geographic	Comments
Crop/Site	Resid	Agric	For	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	
the field, in ball and burlap or in containers outdoor and in greenhouses															
				Preplant	Ground boom, soil incorporated	4.0 EC, WP	NS	NA	NS	NA					
				foliar, soil directed	Tractor drawn spreader, push type spreader, belly grinder, gravity fed backpack, spoon	1.1 G									
				Total	·	4.0	CBD		3						
ONIONS		√		Post plant (seeding) Broadcast	Ground boom	1.0 EC	1.0	NS	2	NS	60	24	NS		
		√		At plant, soil drench or basal spray	Ground boom	1.0 EC, WDG, G	1.0	142	1	IND					Incorporation is not specified on the label.
				Total		2.0	2.0		2		60	24	NS		
ORNAMENTAL AND/OR SHADE TREES, HERBACEOUS PLANTS		✓		Foliar broadcast	Ground boom, air blast, handgun, low and high pressure hand wands	2.0 EC, WP 1.0 G, B	2.0	NA	[2] NS	NA	NS	24	NS		Some labels include a MRI of 7 days.

Crop/Site	ential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation		m_	e	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
		✓		Dormant /Delayed Dormant	Handgun, low pressure and backpack	3.0 EC	3.0	NA	1	NA	NS		7		Low volume spray permitted for concentrated solutions and lower rates.
ORNAMENTAL LAWNS AND TURF, SOD		✓		When needed, broadcast, soil or spot treatment	ground boom (WP only), high pressure hand wand	3.76 EC, WP	7.52	NA	2	NA	NS	24	NS		
FARMS (TURF)		✓		NS	Tractor drawn spreader, push type spreader, belly grinder	1.0 B	2.0	NA	2	NA	NS	24	NS		Bait is used for fire ant control.
ORNAMENTAL NON- FLOWERING PLANTS		√		Foliar, broadcast, soil drench	Chemigation, ground boom, low and high pressure handwand, handgun, backpack sprayer, sprinkling can	0.007/gal ME	NS	NA	12	NA	NA	24	NS		Application rate provided as a dilution factor. Restricted use— occupational only
ORNAMENTAL WOODY SHRUBS AND VINES				Foliar broadcast	Ground boom, air blast, handgun, low and high pressure	2.0 EC, WDG 0.01 lb/gal EC	2.0 0.01 lb/gal	NA	[1] NS	NA	NS	24	NS		Several labels do not restrict the application rate in lb a.i./A. Examples

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation		<u>e</u>	ĸ	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year lb a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days) ³	Restrictions	
					sprayer, backpack										include 16.5 lb/100 gal (228- 625) and 1.0 lb/100 gal (829- 280).
				Dormant/ delayed dormant		1.0 EC 0.005 lb/gal EC	1.0	NA	[1] NS	NA					
				Preharvest	Tractor drawn spreader, push type spreader, belly grinder	6.0 G	6.0	NA	[1] NS	NA					
				Preplant, potted, bailed-and burlapped, containerized	groundboom, handgun, low and high pressure sprayer, backpack, drench	1.0 EC	NS	1	NS	1					
				Pretransplant	groundboom	4.0 WP	[48.0] NS	4	12	4					
				Total		6.0 G 4.0 WP	CBD		CBD						
PEACH		√		dormant/ delayed dormant broadcast	airblast	3.0 EC 2.0 WDG	3.0	NA	1	NA	10	24/ 4d	NS		83222-20 (all other labels restrict to 2 lb ai/a)

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation		<u>~</u>	æ	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (Ib a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
					aircraft,	2.0 EC 2.0 WDG							NS		Updated to reflect spray drift mitigation.
					airblast	2.5 (3.0/100 gal) EC	2.5							Permitted in	GA0400001, SC040001 SLN Expires:
		✓	Post-harvest broadcast	aircraft	2.0 (3.0/100 gal) EC	2.0	NA	1	NA	NA		NS	Georgia and South Carolina	GA0400001, SC040001 SLN Expires: Updated to reflect spray drift mitigation	
		✓		pre-plant, foliar; trunk spray/drenc h or pre- plant dip; ground	handheld, backpack, drench/dip, handgun, and low pressure hand wand	2.5 (3.0/100 gal) WDG	2.5	NA	1	NA	14	5	NS		Some labels do not specify minimum retreatment interval.
						3.0	5.5	NA	3	NA	NA	24	NS		It is possible
		Total		3.0	8.0	NA	3	NA	NA	24	NS	Permitted in Georgia and South Carolina	that multiple types of applications can occur such as soil, foliar and/or post- harvest and dormant/		

	Residential Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxir Applic Num	ation		23	ĸ	Geographic	Comments	
Crop/Site	Resid	Agric	For	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
															delayed dormant applications. Excludes nursery applications (See general "Fruits" listing)
PEANUT		✓		Preplant	Andalan	2.0 EC, WDG	[4.0] NS	4.0	[2] NS	2	NA	24	10	Do not apply aerial in Mississippi	
		√		At plant, postplant	Aerial or ground/ broadcast	4.0 G	[4.0] NS	4.0	2	2	21	24	10		Assumes one crop cycle per
		✓		At pegging	broaucast	2.0 G EC, WDG	[4.0] NS	4.0	2	[2] NS	21	24	10		year.
				Total		4.0 G 2.0 EC, WDG	4.0	4.0	2	2	10	24	10		
PEAR		√		dormant/ delayed dormant broadcast	aircraft, airblast	2.0 WDG, EC	2.0	NA	1	NA	NA	24	NA	Restricted use in California.	83222-20 allows 3.0 lb a.i./ A; however, this does not match the 2001 RED.
		✓		Post-harvest broadcast	aircraft, airblast	2.0 WDG, EC	2.0	NA	1	NA	NA	24	NS	Permitted in California,	

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation	m)3	8	Geographic	Comments
Crop/Site	Resic	Agric	For	Application Type	Equipment	Rate by Formulation ¹ (Ib a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	
														Oregon and Washington.	
				Total		2.0 WDG, EC	4.0	NA	2	NA	NA	24	NS		Multiple types of applications may occur in within a year in California, Oregon and Washington such as a postharvest application and a dormant, delayed dormant. Excludes nursery applications (See general "Fruits" listing)
PEAS		√		Preplant Seed treatment	Seed Treatment	0.30 0.000625 lb/lb seed WP 0.28 0.00058 lb/lb seed EC	NS	NS	NS	NS	NS	NS	NS		There is a range of potential application rates depending on the number of seeds per lb and the number of seeds

	Crop/Site Crop/Site	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation		m	8	Geographic	Comments
Crop/Site	Resid	Agricu	Fore	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
															planted per acre. Seeding information provide by BEAD. ²
PECANS		✓		dormant/ delayed dormant broadcast	aircraft, airblast	2.0 EC, WDG	2.0	NA	1	NA	14		10		66222-19 and 66222-233
		✓		foliar;	airblast	4.3 EC, WDG	6.3		2		4.4		40		Some labels require a 28 d PHI
		V		broadcast	aircraft	2.0 EC, WDG	6.3	NA	3	NA	14	24	10		Updated to reflect spray drift mitigation.
		✓		foliar; orchard floors broadcast	Ground boom, chemigation	4.3 EC, WDG	4.3	NA	2	NA	14		10		
				Total		4.3	12.6	NA	6	NA	14	24	10		Considers multiple type of applications (e.g., dormant, foliar broadcast, and orchard floor) but excluding nursery

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxi Applic Num	ation		m_	e	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (Ib a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours)³	MRI (days)³	Restrictions	Comments
															For nursery applications (See general "Fruits" listing)
PEPPER		√		Foliar	Ground broadcast	1.0 WDG	[8] NS	8.0	[8] NS	8	7	24	10	Permitted in Florida	FL040005; 1 crop cycle per year.
PINEAPPLE		√		Postplant	Ground boom, broadcast	2.0 EC	6.0	6.0	3	NA	365	24	30	Permitted in Hawaii	HI090001 SNL Expires: March 29, 2014. Do not make applications beyond three months after planting.
PLUM/ PRUNE		✓		dormant/ delayed dormant; broadcast	Aircraft, airblast	2.0 EC, WDG	2.0	NA	1	NA	NA		10		
		√		foliar; trunk spray/drenc h	handheld, backpack, drench/dip, handgun, and low pressure hand wand	2.5 3.0/100 gal WDG	2.5	NA	1	NA	NA	24/ 4d	10		
				Total		2.5	4.5	NA	2	NA					Excludes nursery applications

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxir Applic Num	ation		8	<u>~</u>	Geographic	Comments
Crop/Site	Resid	Agric	For	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
															(See general "Fruits" listing)
POULTRY LITTER		✓		When needed, animal bedding/litte r treatment.	Sprayer	0.07126 a.i./1000 sq ft 3.1 ME	NS	NA	NS	NA	NA		NS		53883-264, 84575-3
PUMPKIN		√		Preplant Seed treatment	Seed treatment	0.3 0.00058 lb /lb seed WP	[0.3] NS	[1] NS	[1] NS	1	NS	NS	NS	California maximum single rate 0.000625 lb a.i./lb.	There is a range of potential application rates depending on the number of seeds per lb and the number of seeds planted per acre. Seeding information provide by BEAD. ⁴
RADISH		√		Foliar	Broadcast ground	1.0 EC	NS	1	NS	1	NS	24	NS	permitted in Oregon	OR090012 on radish grown for seed. Label valid until December 31, 2012. (per registrant SLN still valid)

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation	_	e.	m	Geographic	Comments
Crop/Site	Resid	Agric	For	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
		✓		Preplant	Soil incorporation ground	3.0 EC	12.0	3.0	4	1	NS	NS	10		
		✓		At plant/post- plant	In furrow drench/ treatment	3.0 EC 2.8 G	[12.0] NS	3.0	[4] NS	1	30, EC, 7, G	24	10		Only one granular application permitted.
				Total		3.0	[12.0] NS	2	[5] NS						Only one at plant or in furrow application is assumed.
RIGHTS OF WAY, ROAD MEDIANS				When needed, soil broadcast	Granular or low pressure wand	1.0 EC, G, Bait	[2.0] NS	NA	2	NA	NA	NS	7		Apply when needed
RUTABAGA		√		Preplant	Chemigation, Groundboom Aerial	2.4 EC, WDG 2.0 EC, WDG	[4.8] NS	2.4	[2] NS	1	30	24	10		Updated to reflect spray drift mitigation.
		✓		At plant/post- plant	In furrow drench/ treatment	2.4 EC, G WDG	4.8	2.4	[2] NS	1	7	24	10	Disallowed in California and Arizona.	Two crop cycles per year
				Total		2.4	[9.6] NS	4.8	[4] NS	2		24	10		
SEWER MANHOLE COVERS AND WALLS				When needed	Low pressure	0.31 lb/manhole RTU	NS	NA	NS	NA	NA	NA	NS		3 pints product/ manhole

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxir Applic Num	ation		£(<u>e</u>	Geographic	Comments
Crop/Site	Resic	Agric	For	Application Type	Equipment	Rate by Formulation ¹ (Ib a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	
SEED ORCHARD TREES		✓		foliar ; broadcast	Ground boom	1.0 EC	3.0	3.0	NS	NA	30	24	7		62719-575, 62719-615
		✓			High volume sprayer	2.5 0.01 a.i./tree 0.02 EC	2.5	NS	[1] NS	NA	30	24	7		Cone worm treatment (62719-575 and 62719-615) Treatment of 1000 trees per acre would results in an single application rate of 10 lb a.i./a. DAS: 1000 is a bit high, typically for orchards 312 trees per acre
		✓		foliar; stump treatment	backpack, drencher, low pressure hand wand,	0.3 EC	0.3	1.0	NS	NA	30	24	7		62719-575, 62719-615
				Total		1.0	5.8	3	NS	NA	30	24	7		The total number of applications assumed is either three foliar applications or

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application	_	imum tion Rate	Maxii Applic Num	ation		m_	e	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days)³	REI (hours) ³	MRI (days)³	Restrictions	Comments
															two foliar applications with one stump treatment.
SORGHUM GRAIN		√		Seed Treatment	Seed treatment	[0.0009] 0.01- 0.0024 lb ai/ 100 lbs seed EC	0.01	0.01	[1] NS	1	NA	NS	NS		264-932
		√		Preplant Soil Directed	Ground Spreader/T Band	1.5 G	1.5	1.5	[1] NS	1	60	24	10		
		√		Foliar/Post emergent	Ground, Aerial, Chemigation	1.0 EC, WDG	1.5	[1.5] NS	[1] NS	3	30	24	10		PHI varies across labels
				Total		3.3 G 1.0 EC, WDG	3.01	3.01	[3] CBD	3	30	24	10		One crop cycle per year.
SOYBEAN		√		foliar , post- emergence soil broadcast	broadcast ground, aerial, chemigation	1.0 EC, WDG	3.0	3.0	3	3	28	24	14		One crop cycle per year.
		✓		At plant/post plant treatment; soil band	ground boom	2.2 G 1.0 EC	3.0	3.0	1 (G), 3 (EC)	1 (G), 3 (EC)	28	24	10		
				Total		1.0 EC, WDG 2.2	3.0	3.0	3	3					One crop cycle per year.

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxir Applic Num	ation		<u>m</u>	en_	Geographic	Comments
Crop/Site	Resid	Agric	Fore	Application Type	Equipment	Rate by Formulation ¹ (Ib a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
						G									
STRAW-BERRIES		✓		Pre-plant	Aerial or ground/ broadcast	2.0 EC	2.0	NS	1	NS	NA	24	10	No use in Mississippi	33658-26
		✓		Foliar	Aerial or ground/ broadcast, foliar spray	1.0 EC, WDG	2.0	NS	2	NS	21	24	10		Two applications (2 lb ai) for all products per cc.
		✓		Post harvest	Ground directed spray	1.0 EC, WDG	2.0	NS	2	NS	21		14		
				Total		2.0	4.0		3						One preplant application and two foliar and/or postharvest application permitted per year.
SUNFLOWER		✓		At plant		2.0 G	3.0	3.0	[1] NS	1	42		10		Per registrant 1 cc per year
		✓		Preplant	Aerial/ground	2.0 EC, WDG	3.0	3.0	[1] NS	1	42	24	10		2 inches min incorporation
		✓		Post emergent or foliar		1.5 EC, WDG	3.0	3.0	[2] NS	2	42		10		
				Total		2.0	5.0	5.0	3	3					Assumed either an at plant or preplant

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation		æ	8	Geographic	Comments
Crop/Site	Resid	Agricu	Fore	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days) ³	Restrictions	Comments
															application followed with two foliar applications. One crop cycle per year
SWEET POTATO		√		Preplant, soil	Aircraft, ground boom	2.1 G, EC, WDG	2.1	NS	1	1	125	24		LA090002,M S080007, NC090001	Updated to
SWEET POTATO		,		broadcast	Aircraft	2.0 G, EC, WDG	2.1	103	1	1	123	24		permits 60 PHI	reflect spray drift mitigation.
товассо		✓		Preplant	Aircraft, ground boom	2.0 EC, G, WDG	2.0	NS	1	1	7	24	NA		
TRITICALE		✓		Storage Commercial Slurry Seed Treatment	Seed treatment	0.003 0.0024 lb ai/ 100 lbs seed EC	[0.003] NS	[1] NS	[1] NS	[1] NS	NA	[10] NS	[10] NS		264-932 Seeding information provide by BEAD. ⁴ One crop cycle per year.
TURNIP		✓		Preplant	soil incorporation/ ground boom, handgun	2.3 G, WDG	[4.6] NS	2.3	[2] NS	1	30	24	10		Minimum incorporation: 2 inches.
		✓		Postplant	Soil incorporation/ ground boom, handgun	2.3 G, WDGP	[4.6] NS	2.3	[2] NS	1	30	24	10		Minimum incorporation: 2 inches.

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation		8		Geographic	Comments
Crop/Site	Resid	Agricu	Fore	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
				Total		2.3	4.6	2.3	2	1	30	24	10		Assumed either a preplant or postplant application. Two crop cycles per year
UTILITIES For use in and around telecommunications, power, utilities and railroad systems equipment: Buried cables, cable television pedestals, cables, pad-mounted electric power transformers, telephone cables, underground vaults, telecommunications equipment, power and utilities equipment				When needed, broadcast	Product container	1 G 0.44 lba.i./100 sq ft (see comments)	1	NS	[1] NS	NS	NS	NS	NS		Applications permitted as needed. Reg. Nos. 13283-14, 13283-17 Broadcast product onto the ground covering the area of the pad location, plus a two foot perimeter around the outside of the pad location.

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxir Applic Num	ation	_	3	<u>6</u>	Geographic	Comments
Crop/Site	Resid	Agric	For	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	РНІ (days) ^з	REI (hours)³	MRI (days)³	Restrictions	Comments
WALNUTS		✓		dormant/ delayed dormant; broadcast	Aircraft, airblast	2.0 EC, WDG	2.0	NA	1	NA	14		10		62719-301 (12 lb a.i./A)
		✓		foliar ; broadcast	aircraft, airblast, chemigation	2.0 EC, WDG	4.0	NA	2	NA	14	24	10		Some labels do not specify retreatment interval.
		✓		foliar; orchard floors broadcast	Ground boom, chemigation	4.0 EC, WDG	4.0	NA	1	NA	14		10		
				Total		4.0	10.0		4						Excluding nursery applications; includes dormant, foliar broadcast, and orchard floor. For nursery applications (See general "Fruits" listing)
WIDE AREA/ GENERAL OUTDOOR	✓	✓		when needed, Broadcast	Ground sprayer	0.5084 lb ai/100 gal EC	[1.02] NS	NA	2	NA	NA	NS	NS		66222-19
TREATMENT For ants and other misc. pests.	·	Ţ		when needed, Drench	Drench	1.0	NS NS	NA NA	NS NS	NA NA	NA NA	CNI	NS NS		228-624

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application		imum tion Rate	Maxii Applic Num	ation		3	8	Geographic	Comments
Crop/Site	Resid	Agricu	Fore	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² Ib a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours) ³	MRI (days)³	Restrictions	Comments
						8.2 lb a.i/100 gal EC									
				Total		[1.0]	[12.0] NS	NA	NS	NA	NA				
WHEAT		✓		Slurry Seed Treatment	Seed treatment	0.003 0.0024 lb ai/ 100 lbs seed EC	[0.006] NS	1	[2] NS	1	NA	NA	NA		Seeding information provide by BEAD. ⁴
		✓		Foliar, soil treatment	Ground, broadcast	0.5 EC	[8.0] NS	4.0	[2] NS	1	14/ 28		14		PHI: 14 forage or hay, 28 grain or straw
		✓		Post- emergence foliar	Ground, Aerial, Chemigation	1.0 EC	[4.0] NS	2.0	[4] NS	2	14/ 28	24	NS	Only for use in AZ, CA, CO, ID, KS, MN, MO, NE, NM, NV, ND, OK, OR, SD, TX, UT, WA and WY	Label states 1.0 Ib ai/A for cereal leaf beetles and then state max rate 0.5 Ib ai/A in restriction). Some labels restrict no more than 2 applications per crop/season PHI 14 forage or hay, 28 grain or straw

	Residential	Agricultural	Forestry	Timing;	Method/	Maximum Single Application	_	mum ion Rate	Maxir Applic Num	ation		<u>8</u>	œ_	Geographic	Comments
Crop/Site	Resid	Agric	For	Application Type	Equipment	Rate by Formulation ¹ (lb a.i./A)	Per Year Ib a.i./A	Per CC ² lb a.i./A	Per Year	Per CC ²	PHI (days) ³	REI (hours)³	MRI (days)³	Restrictions	Comments
				Total		[1] 4.0 EC	[12.006	[6.003] 5.0	[8] NS	[4] 2					MO otherwise 2.0 plus seed treatment
WOOD PROTECTION TREATMENT TO BUILDINGS/ PRODUCTS OUTDOOR				When needed, Wood surface treatment	Low pressure handwand, backback sprayer, paintbrush	16.65 lb/10,000 sq ft 0.17 lb a.i./gal EC	NS	NA	NS	NA	NS	NS	NS		
						0.08 lb ai/gal EC, RTU EC, ME	NS	NA	NS	NA	NS	NS	NS		Apply 1 gal per 100 sq ft of wood

- 1. EC emulsifiable concentrate; WDG water dispersible granular in water soluble packet; WP wettable power in water soluble packet; B bait (granular), G granular; ME microencapsulated; RTU ready to use.
- 2. Reported as per crop cycle or per season
- 3. PHI Preharvest interval; REI reentry interval; MRI Minimum retreatment interval
- 4. Becker, J.; Ratnayake, S. Acres Planted per Day and Seeding Rates of Crops Grown in the United States, U.S. EPA OPP/BEAD, 2011; example calculations provided below: Beans: 0.00058 lb a.i./lb seed / 960 seeds/lb seed x 418,176 seeds/A [pgs. 19, 81 (beans, succulent)]

Corn: 0.000625 lb a.i./lb seed / 1,800 seeds/lb seed x 59,739 seeds/A [pgs. 24, 81 (corn, sweet)]

Cotton: 0.00116 lb a.i./lb seed / 4,500 seeds/lb seed x 85,00 seeds/A [pgs. 13, 81]

Cucumber: 0.00058 lb a.i./lb seed / 12,000 seeds/lb seed x 80,418 seeds/A [pgs. 25, 81]

Peas: 0.000625 lb a.i./lb seed / 1,361 seeds/lb seed x 653,400 seeds/A [pgs. 34, 82]

Pumpkin: 0.00058 lb a.i./lb seed / 1,600 seeds/lb seed x 7,260 seeds/A [pgs. 37, 82]

Sorghum: 0.001 lb a.i./lb seed / 11,000 seeds/lb seed x 100,000 seeds/A [pgs. 16, 39]

Triticale: 0.003 lb a.i./100 lb seed / 109 lb seed/A [pg.16] Wheat: 0.003 lb a.i./100 lb seed /116 lb seed/A [pg. 16]

[] indicate assumptions that are made when the information is not specified but can be inferred