

APPENDIX 1-4. Usage Data for Methomyl – SUUM

See attached memorandum, Methomyl (090301) National and State Summary Use and Usage Matrix, from the Biological and Economic Analysis Division.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

February 27, 2020

MEMORANDUM

SUBJECT: Methomyl (090301) National and State Summary Use and Usage Matrix

FROM: Claire Paisley-Jones, Biologist
Science Information and Analysis Branch
Biological and Economic Analysis Division (7503P)

A handwritten signature in black ink that reads "Claire Paisley-Jones".

THRU: Hope Johnson, Acting Chief
Science Information and Analysis Branch
Biological and Economic Analysis Division (7503P)

A handwritten signature in black ink that reads "Hope Johnson".

TO: Kristina Garber, Senior Science Advisor
Environmental Risk Branch II
Environmental Fate and Effects Division (7507P)

Methomyl: National and State Summary Use and Usage Matrix

Introduction

The Environmental Protection Agency (EPA) has been working with the United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) to develop a method for assessing the risks of pesticides to endangered and threatened species. Given that many listed species range over large areas, it is necessary to consider use of pesticides on a landscape scale, rather than simply a field or a small watershed. One consideration involves the percent of the crop in a given area (relevant to a listed species' range) that is treated with a pesticide. There are uncertainties in extrapolating from national level usage data to regional and state level ranges of protected species. In particular, national level data does not distinguish if there are areas of a species' range where usage is greater or less than the average national usage. In order to address these concerns, this document provides all available estimates of pesticide usage data for methomyl, nationally and by state. All registered use sites as of January 2019 are listed although usage data are not available for every site. Pesticide usage data are reported at the state level; usage data at smaller levels may not be statistically valid due to reduced sample size. The intended use of the data presented here is to inform assumptions about where methomyl is used in the United States (crop-state combinations including the state range including acreage and pounds applied), yearly variation in usage expressed as percent crop treated (PCT), and rate of usage expressed in terms of the average application rate. Additionally, the data identifies crop-state combinations where methomyl is not used either through surveyed non-usage or lack of crop-state survey. The state level estimates of pesticide usage presented here (especially percent crop treated) can be used to inform estimates of the proportion of a species range that may be exposed to methomyl.

The pesticide usage data summarized herein were obtained from both public and private (proprietary) sources. As presented, the data are not proprietary, business confidential, or a trade secret. The most recent five years of available data as of September 2018 were used in order to represent current usage and the most recent use trend.

Data Sources

- **Kynetec USA, Inc. The AgroTrak Study, Database Subset (Kynetec)** – proprietary pesticide usage data. These data are collected and sold by a private market research firm. The data are collected by annual surveys of agricultural users in the continental United States and provides pesticide usage data for about 60 crops, including both specialty and row crops. The survey design targets at least 80 percent of US acreage/production of the surveyed commodities. Survey methodology provides statistically valid results, typically at the state and national levels.
- **United States Department of Agriculture's National Agricultural Statistics Service (NASS)** – publicly available pesticide usage data. NASS data are based on surveys that focus on the top-producing states that together account for the majority of U.S. acres or production of the surveyed commodity. NASS survey design targets a minimum of 80 percent of the acreage/production for every fruit, vegetable, and field crop surveyed. Operation level data are combined during summary and, pending compliance with disclosure rules, published at the state and national levels. NASS does not collect data annually for each crop, but surveys for various commodities on a rotating schedule.
- **California Department of Pesticide Regulation (CADPR) Pesticide Use Reporting (PUR)** – publicly available pesticide usage data. The PUR database contains detailed records and summaries of agricultural applications of pesticides on crops based on application permits. All agricultural

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growers must submit their production agricultural pesticide use reports monthly and pest control businesses must submit pesticide use reports within 7 days after their application. As such, CADPR data is a census of all usage rather than a survey and is published annually.

- **Kline (Kline)** - proprietary pesticide usage data. Data covers pesticide usage in several U.S. markets, including consumer, professional pest management, turf and ornamentals, food handling establishments, stored grain, industrial vegetation, as well as specialty biocides and biopesticides. Data are collected via surveys of pest management companies, suppliers, dealers, distributors, food-handling establishments, trade associations, consumers, and retailers. Market sizes and brand shares are determined by analyses of sales and other data obtained through interviews and are believed to be sufficiently accurate for screening-level needs at the national level. Market reports reflect usage by class/market segment and chemical and are based on sales information (manufacturer and retail) and end-user surveys. Study dates vary by market sector.

The presented usage data are averaged over the number of years of available survey data during the most recent five years of available data, based on sampling frequency (five years for Kynetec and CADPR, and 1-2 years for NASS and Kline), regardless of whether usage is observed in each surveyed year. If 80% or more of production acreage for a crop is in California, CADPR data is used. For crops with less than 80% California production, Kynetec is the primary source of usage data. Kynetec is the primary data source as it collected annually and tends to provide the most robust usage data among the available data sources. NASS data are used for crops which are not surveyed by Kynetec data. The presented data may not be a reliable indicator of the variability in usage between individual years. In certain cases, data are unavailable or withheld. These cases are indicated in the tables:

- Some data sources do not provide all data elements. When a data element is not available this is indicated with a "-" notation in the relevant column.
- If a registered use site is surveyed by one of our data sources but no usage is observed, this is indicated with the notation "Surveyed but no usage reported" across the data columns. Lack of reported usage data for the pesticide on a surveyed crop indicates that there is a very low likelihood that the given pesticide is used on that crop.
- If a registered use site is not surveyed nationally by any of our data sources, this is indicated with the notation "Not Surveyed at National Level" across the data columns.

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Agricultural Usage

The agricultural usage trend for methomyl since 1998 is presented in Figure 1. Methomyl pounds applied and total acres treated have decreased by approximately 70% from 1998 to 2017. Similarly, for the period 2013 to 2017, pounds of methomyl applied has decreased by 26% while total acres treated has decreased by 33%. Overall, there has been a decreasing trend in agricultural usage of methomyl since 2009. Current use patterns reported here reflect changes in methomyl use directions implemented based on the 1998 Methomyl Registration Eligibility Decision (RED) and the voluntary use cancellations on barley, oats, and rye in January 2015.

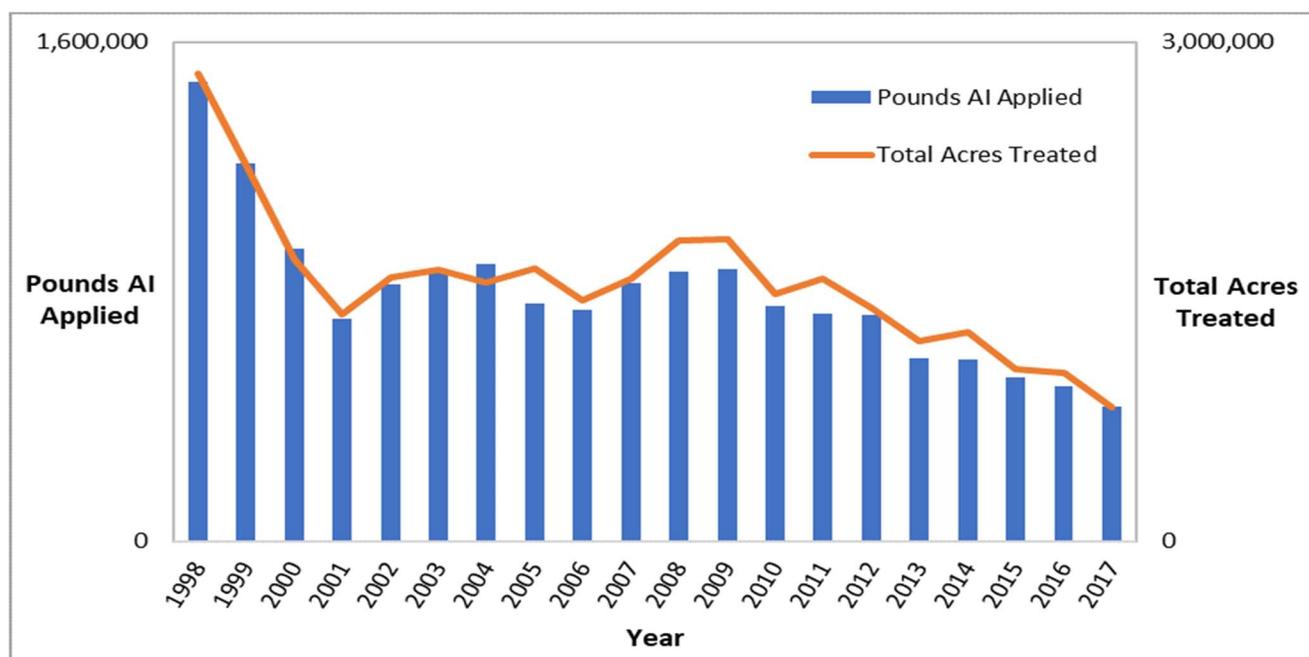


Figure 1: Methomyl Total Acres Treated and Total Pounds A.I. Applied (1998-2017).

(Does not include usage data for crops surveyed only by NASS or CADPR, as indicated in Table 1.)

Source: Kynetec. 1998-2017.

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Table 1. National Methomyl Agricultural Usage and Use by Crop (Data Averaged and Rounded Over Reported Years).

Crop	Data Source	States with Reported Usage	Avg. Annual Pounds AI Applied ^a	Avg. Annual Total Acres Treated ^b	% Acres Treated by Air	Avg. Single AI Rate (lb AI/A)	Max Labeled Single AI Rate (lb AI/A) ^c
Root and Tuber Vegetables	<i>See Crops Below</i>						Full Crop Group Not Registered
Carrots	Kynetec (2013-2017)	CA, WA, WI	2,000	3,000	15%	0.762	0.929
Potatoes	Kynetec (2013-2017)	CA, FL, ID, OR, PA, WA	30,000	40,000	30%	0.680	0.929
Sugar Beets	Kynetec (2013-2017)	CA	2,000	6,000	60%	0.384	0.929
Beets, Table (leaves and roots)	Not Surveyed at National Level						0.929
Horseradish	Not Surveyed at National Level						0.464
Radish (CA & FL SLNs only)	Not Surveyed at National Level						0.9(CA) 0.45 (FL)
Sweet Potato	Not Surveyed at National Level						0.900
Turnip Greens	Not Surveyed at National Level						0.929
Bulb Vegetables	<i>See Crops Below</i>						Full Crop Group Not Registered
Garlic	CADPR (2012-2016)	CA	8,000	20,000	10%	0.450	0.464
Onions	Kynetec (2013-2017)	CA, CO, GA, ID, NY, OR, TX, WA	100,000	200,000	20%	0.842	0.929
Leafy Vegetables	<i>See Crops Below</i>						0.929
Lettuce	Kynetec (2013-2017)	AZ, CA	50,000	80,000	25%	0.686	0.929
Spinach	Kynetec (2013-2017)	AZ, CA, TX	5,000	10,000	85%	0.408	0.929
Endive/Escarole	Not Surveyed at National Level						0.929
Kale	Not Surveyed at National Level						0.929
Mustard (leafy green)	Not Surveyed at National Level						0.929
Parsley	Not Surveyed at National Level						0.929
Swiss Chard	Not Surveyed at National Level						0.929
<i>Other Leafy Greens</i>	Not Surveyed at National Level						0.929

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Crop	Data Source	States with Reported Usage	Avg. Annual Pounds AI Applied ^a	Avg. Annual Total Acres Treated ^b	% Acres Treated by Air	Avg. Single AI Rate (lb AI/A)	Max Labeled Single AI Rate (lb AI/A) ^c
Brassica Vegetables	<i>See Crops Below</i>						Full Crop Group Not Registered
Broccoli	Kynetec (2013-2017)	CA	1,000	1,000	10%	0.734	0.929
Brussels Sprouts	CADPR (2012-2016)	CA	2,000	2,000	5%	0.900	0.929
Cabbage	Kynetec (2013-2017)	CA, FL, MI, NY, NC, WI	4,000	6,000	<2.5%	0.569	0.929
Cauliflower	Kynetec (2013-2017)	CA	<500	500	5%	0.860	0.929
Broccoli, Chinese	Not Surveyed at National Level						0.900
Broccoli Raab/Rapini	Not Surveyed at National Level						0.900
Cabbage, Chinese	Not Surveyed at National Level						0.929
Collards	Not Surveyed at National Level						0.929
Legume Vegetables	<i>See Crops Below</i>						Full Crop Group Not Registered
Beans/Peas, Dried	Kynetec (2013-2017)	CA, TX, WA	3,000	10,000	55%	0.285	0.929
Beans, Succulent	Kynetec (2013-2017)	CA, FL, NY, PA, TX	10,000	30,000	50%	0.366	0.929
Peas, Succulent	Kynetec (2013-2017)	WI	<500	<500	0%	0.594	0.929
Lima Beans	Kynetec (2013-2017)	CA, DE	3,000	4,000	60%	0.686	0.929
Soybeans	Kynetec (2013-2017)	AL, AR, IL, TX	2,000	10,000	60%	0.124	0.464
Fruiting Vegetables	<i>See Crops Below</i>						Full Crop Group Not Registered
Peppers	Kynetec (2013-2017)	CA, FL, NJ, NC, OH	6,000	9,000	10%	0.663	0.929
Tomatoes	Kynetec (2013-2017)	CA, FL	20,000	30,000	15%	0.564	0.929
Eggplant	Not Surveyed at National Level						0.929
Tomatillo	Not Surveyed at National Level						0.929
Cucurbit Vegetables	<i>See Crops Below</i>						Full Crop Group Not Registered
Cucumbers	Kynetec (2013-2017)	CA, FL	4,000	6,000	5%	0.564	0.929
Pumpkins	Kynetec (2013-2017)	CA, MI, NJ, NY, PA, WI	2,000	4,000	10%	0.558	0.900

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Crop	Data Source	States with Reported Usage	Avg. Annual Pounds AI Applied ^a	Avg. Annual Total Acres Treated ^b	% Acres Treated by Air	Avg. Single AI Rate (lb AI/A)	Max Labeled Single AI Rate (lb AI/A) ^c	
Squash	Kynetec (2013-2017)	CA, FL, NJ, NY, NC, OH, PA, TN, WI	2,000	3,000	10%	0.633	0.929	
Melons (cantaloupes)	Kynetec (2013-2017)	CA, TX	2,000	3,000	25%	0.707	0.929	
Melons (honeydew)	CADPR (2012-2016)	Surveyed but no usage reported						0.929
Melons (watermelon)	Kynetec (2013-2017)	CA, FL, TX	5,000	9,000	5%	0.567	0.929	
Melons (other)	Not Surveyed at National Level							0.929
Citrus Fruit	<i>See Crops Below</i>							Full Crop Group Not Registered
Grapefruit (registered only in CA, AZ, & HI) (<i>AZ & HI Not surveyed</i>)	CADPR (2012-2016)	CA	<500	<500	0%	0.519	0.929	
Lemons (registered only in CA, AZ, & HI) (<i>HI Not surveyed</i>)	Kynetec (2013-2017)	CA	1,000	1,000	0%	0.900	0.929	
Oranges (registered only in CA, AZ, & HI) (<i>AZ and HI Not surveyed</i>)	Kynetec (2013-2017)	CA	4,000	4,000	0%	0.895	0.929	
Tangerines (registered only in CA, AZ, & HI) (<i>AZ and HI Not surveyed</i>)	CADPR (2012-2016)	CA	<500	<500	0%	0.830	0.929	
Tangelo (registered only in CA, AZ, & HI) (<i>AZ and HI Not surveyed</i>)	CADPR (2012-2016)	CA	<500	<500	0%	0.840	0.929	

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Crop	Data Source	States with Reported Usage	Avg. Annual Pounds AI Applied ^a	Avg. Annual Total Acres Treated ^b	% Acres Treated by Air	Avg. Single AI Rate (lb AI/A)	Max Labeled Single AI Rate (lb AI/A) ^c
Pome Fruit	<i>See Crops Below</i>						Full Crop Group Not Registered
Apples	Kynetec (2013-2017)	MI, NY, OH, PA, VA, WV	10,000	30,000	10%	0.492	0.929
Pears (registered only in CT, DE, NH, NJ, NY, MD, ME, MA, PA, RI, & VT) (No registered states surveyed)	Not Surveyed at National Level						0.929
Stone Fruit	<i>See Crops Below</i>						Full Crop Group Not Registered
Nectarine (registered in AZ and CA only) (AZ not surveyed)	CADPR (2012-2016)	CA	3,000	4,000	0%	0.860	0.929
Peaches	Kynetec (2013-2017)	CA, MI, NJ, PA, TX	3,000	4,000	0%	0.615	0.929
Berries and Small Fruit	<i>See Crops Below</i>						Full Crop Group Not Registered
Blueberries	NASS (2015 & 2017)	GA, MI, NJ, NC, OR, WA	20,000	--	--	0.765	0.929
Tree Nuts	<i>See Crops Below</i>						Full Crop Group Not Registered
Pecans (AL, AR, FL, GA, LA, KY, NC, MS, SC, TN, VA, & WV only) (only AL, GA, and LA are surveyed)	Kynetec (2013-2017)	Surveyed but no usage reported				0.929	
Cereal Grains	<i>See Crops Below</i>						Full Crop Group Not Registered
Corn, field	Kynetec (2013-2017)	CA, IL, MD, NC, PA	2,000	8,000	5%	0.257	0.464
Sweet Corn	Kynetec (2013-2017)	CA, FL, GA, IL, MI, NJ, NY, OH, PA, WI	200,000	500,000	60%	0.348	0.464

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Crop	Data Source	States with Reported Usage	Avg. Annual Pounds AI Applied ^a	Avg. Annual Total Acres Treated ^b	% Acres Treated by Air	Avg. Single AI Rate (lb AI/A)	Max Labeled Single AI Rate (lb AI/A) ^c
Sorghum (Milo)	Kynetec (2013-2017)	AR, GA, OK, TX	3,000	10,000	25%	0.249	0.464
Wheat, Spring (ID, OR, WA only) <i>(Registered states not surveyed)</i>	Not Surveyed at National Level						0.464
Wheat, Winter (ID, OR, WA only) <i>(Registered states not surveyed)</i>	Not Surveyed at National Level						0.464
Popcorn	Not Surveyed at National Level						0.464
Forage, Fodder and Hay	<i>See Crops Below</i>						Full Crop Group Not Registered
Alfalfa	Kynetec (2013-2017)	AZ, CA, KS, OK, PA	20,000	40,000	30%	0.454	0.929
Pasture	Not Surveyed at National Level						0.929
Sod Farm	Not Surveyed at National Level						0.929
Herbs and Spices	<i>See Crops Below</i>						Full Crop Group Not Registered
Anise	Not Surveyed at National Level						0.929
Mint	Not Surveyed at National Level						0.929
Oil Seeds	<i>See Crops Below</i>						Full Crop Group Not Registered
Cotton	Kynetec (2013-2017)	AZ, LA	<500	2,000	55%	0.215	0.697
Stalk, Stem, and Lead Petiole Vegetables	<i>See Crops Below</i>						Full Crop Group Not Registered
Asparagus	Kynetec (2013-2017)	CA, MI	1,000	1,000	0%	0.838	0.929
Celery	Kynetec (2013-2017)	CA, MI	9,000	10,000	20%	0.767	0.929
Tropical and Subtropical Fruit	<i>See Crops Below</i>						Full Crop Group Not Registered
Avocado	CADPR (2012-2016)	Surveyed but no usage reported					0.929
Pomegranate	CADPR (2012-2016)	CA	10,000	10,000	5%	0.900	0.929

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Crop	Data Source	States with Reported Usage	Avg. Annual Pounds AI Applied ^a	Avg. Annual Total Acres Treated ^b	% Acres Treated by Air	Avg. Single AI Rate (lb AI/A)	Max Labeled Single AI Rate (lb AI/A) ^c
Misc. Crops	<i>See Crops Below</i>						Full Crop Group Not Registered
Peanuts	Kynetec (2013-2017)	AL, FL, NC, TX	2,000	6,000	0%	0.381	0.929
Tobacco	Kynetec (2013-2017)	GA, KY, NC, PA	3,000	8,000	0%	0.365	0.464
Non-bearing fruit, grape and nut nursery stock (field grown) in the state of California (CA SLN only)	<i>See Crops Below</i>						0.900
Citrus Fruit Trees (non-bearing) (CA only)	<i>See Crops Below</i>						0.900
Grapefruit (non-bearing)	CADPR (2012-2016)	Also registered for bearing use. See combined usage above					0.900
Lemon (non-bearing)	CADPR (2012-2016)	Also registered for bearing use. See combined usage above					0.900
Orange (non-bearing)	CADPR (2012-2016)	Also registered for bearing use. See combined usage above					0.900
Tangelo (non-bearing)	CADPR (2012-2016)	Also registered for bearing use. See combined usage above					0.900
Tangerine (non-bearing)	CADPR (2012-2016)	Also registered for bearing use. See combined usage above					0.900
Pomelo (non-bearing)	CADPR (2012-2016)	Surveyed but no usage reported					0.900
Kumquat (non-bearing)	CADPR (2012-2016)	Surveyed but no usage reported					0.900
<i>Other Citrus Fruit Trees (non-bearing)</i>	Not Surveyed in California						0.900
Pome Fruit Trees (non-bearing) (CA only)	<i>See Crops Below</i>						0.900
Apples (non-bearing)	CADPR (2012-2016)	Also registered for bearing use. See combined usage above					0.900
Pears (non-bearing)	CADPR (2012-2016)	Surveyed but no usage reported					0.900
Asian Pears (non-bearing)	CADPR (2012-2016)	Surveyed but no usage reported					0.900
Quince (non-bearing)	CADPR (2012-2016)	Surveyed but no usage reported					0.900
<i>Other Pome Fruit Trees (non-bearing)</i>	Not Surveyed in California						0.900

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Crop	Data Source	States with Reported Usage	Avg. Annual Pounds AI Applied ^a	Avg. Annual Total Acres Treated ^b	% Acres Treated by Air	Avg. Single AI Rate (lb AI/A)	Max Labeled Single AI Rate (lb AI/A) ^c
Stone Fruit Trees (non-bearing) (CA only)	<i>See Crops Below</i>						0.900
Apricot (non-bearing)	Kynetec (2013-2017)	CA	500	1,000	0%	0.450	0.900
Cherry (non-bearing)	CADPR (2012-2016)	Surveyed but no usage reported					0.900
Jujube (non-bearing)	CADPR (2012-2016)	Surveyed but no usage reported					0.900
Nectarine (non-bearing)	CADPR (2012-2016)	Also registered for bearing use. See combined usage above					0.900
Peaches (non-bearing)	CADPR (2012-2016)	Also registered for bearing use. See combined usage above					0.900
Plums (non-bearing)	CADPR (2012-2016)	CA	<500	<500	0%	3.750	0.900
Prunes (non-bearing)	CADPR (2012-2016)	Surveyed but no usage reported					0.900
Pluot (non-bearing)	CADPR (2012-2016)	Surveyed but no usage reported					0.900
<i>Other Stone Fruit Trees (non-bearing)</i>	Not Surveyed in California						0.900
Tree Nuts (non-bearing) (CA only)	<i>See Crops Below</i>						0.900
Almonds (non-bearing)	CADPR (2012-2016)	CA	<500	<500	100%	0.750	0.900
Walnuts (non-bearing)	CADPR (2012-2016)	CA	<500	<500	100%	0.450	0.900
Pecans (non-bearing)	CADPR (2012-2016)	Surveyed but no usage reported					0.900
Pistachios (non-bearing)	CADPR (2012-2016)	Surveyed but no usage reported					0.900
Chestnuts (non-bearing)	CADPR (2012-2016)	Surveyed but no usage reported					0.900
<i>Other Tree Nuts (non-bearing)</i>	Not Surveyed in California						0.900
Tropical and Subtropical Fruit	<i>See Crops Below</i>						0.900
Avocado	CADPR (2012-2016)	Also registered for bearing use. See combined usage above					0.900
Pomegranate	CADPR (2012-2016)	Also registered for bearing use. See combined usage above					0.900

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Crop	Data Source	States with Reported Usage	Avg. Annual Pounds AI Applied ^a	Avg. Annual Total Acres Treated ^b	% Acres Treated by Air	Avg. Single AI Rate (lb AI/A)	Max Labeled Single AI Rate (lb AI/A) ^c
Grapes (non-bearing) (CA only)	<i>See Crops Below</i>						0.900
Grapes, Table and Wine (non-bearing)	CADPR (2012-2016)	CA	2,000	2,000	2%	0.715	0.900
Grapes, Raisin (non-bearing)	CADPR (2012-2016)	Surveyed but no usage reported					0.900

Notes	
Kynetec (YEAR-YEAR)	Agricultural usage surveyed by market research firm(s). Values rounded.
NASS (YEAR)	Surveyed by United States Department of Agriculture National Agricultural Statistics Service. Values rounded.
CADPR (YEAR)	Surveyed by the California Department of Pesticide Regulation. Over than 80% of crop grown in California. Values rounded.
*	California crop. Over than 80% of crop grown in California. California usage is considered to be representative of National usage.
a	The pounds AI displayed in this document may differ from those displayed in the SLUA and other BEAD documents, because different calculation methods were used.
b	Total Acres Treated accounts for multiple applications to a single area. This may overestimate the number of acres treated as some acres are treated more than once.
c	Max labeled rate from 2017 EFED 1-3 Master Use Table.
--	Data unavailable

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Table 2. Methomyl Agricultural Usage and Use by Crop and State (Data Averaged and Rounded Over Reported Years)

Crop	Data Source	State	Avg. Annual Crop Acres Grown†	Avg Annual Total Lbs. AI Applied ^a	Min. Annual PCT ^b	Max. Annual PCT ^b	Avg. Annual PCT ^b
Root and Tuber Vegetables	<i>See Crops Below (Full Crop Group Not Registered)</i>						
Carrots	Kynetec (2013-2017)	California	70,000	2,000	<2.5%	5%	<2.5%
		Washington	7,000	<500	0%	5%	<2.5%
		Wisconsin	4,000	<500	0%	55%	10%
		MI, TX	4,000	Surveyed but no usage reported			
Potatoes	Kynetec (2013-2017)	California	40,000	<500	0%	5%	<2.5%
		Florida	30,000	1,000	0%	25%	10%
		Idaho	300,000	500	0%	<2.5%	<2.5%
		Oregon	40,000	2,000	0%	20%	5%
		Pennsylvania	8,000	<500	0%	<2.5%	<2.5%
		Washington	200,000	30,000	0%	25%	15%
		CO, ME, MI, MN, MT, NE, NY, NC, ND, TX, WI	400,000	Surveyed but no usage reported			
Sugar Beets	Kynetec (2013-2017)	California	20,000	2,000	0%	45%	25%
		CO, ID, MI, MN, MT, NE, ND, WY	1,100,000	Surveyed but no usage reported			
Beets, Table	CADPR (2012-2016)	California (21%)	1,000	<500	Data withheld due to likely overcounting caused by reporting issue.		
	Not Surveyed at National Level	Other States (79%)	Not Surveyed at National Level				
Radish (CA & FL SLNs only)	CADPR (2012-2016)	California (13%)	2,000	<500	Data withheld due to likely overcounting caused by reporting issue.		
	Not Surveyed at National Level	FL	Not Surveyed at National Level				
Sweet Potato	CADPR (2012-2016)	California (14%)	20,000	<500	Data withheld due to likely overcounting caused by reporting issue.		
	Not Surveyed at National Level	Other States (86%)	Not Surveyed at National Level				

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Crop	Data Source	State	Avg. Annual Crop Acres Grown†	Avg Annual Total Lbs. AI Applied ^a	Min. Annual PCT ^b	Max. Annual PCT ^b	Avg. Annual PCT ^b
Turnip Greens	CADPR (2012-2016)	California (1%)	<500	<500	Data withheld due to likely overcounting caused by reporting issue.		
	Not Surveyed at National Level	Other States (99%)	Not Surveyed at National Level				
Beet (leafy green)	Not Surveyed at National Level						
Horseradish	Not Surveyed at National Level						
Bulb Vegetables	<i>See Crops Below (Full Crop Group Not Registered)</i>						
Garlic	Kynetec (2013-2017)	California	30,000	8,000	0%	45%	35%
Onions	Kynetec (2013-2017)	California	30,000	20,000	0%	45%	35%
		Colorado	5,000	3,000	0%	100%	55%
		Georgia	10,000	<500	0%	55%	10%
		Idaho	8,000	10,000	0%	100%	95%
		New York	8,000	5,000	0%	75%	30%
		Oregon	20,000	40,000	0%	100%	80%
		Texas	10,000	2,000	0%	55%	10%
Washington	20,000	50,000	0%	95%	80%		
Leafy Vegetables	<i>See Crops Below (Full Crop Group Not Registered)</i>						
Lettuce	Kynetec (2013-2017)	Arizona	70,000	4,000	<5%	10%	5%
		California	200,000	50,000	0%	30%	25%
Spinach	Kynetec (2013-2017)	Arizona	8,000	900	0%	70%	15%
		California	30,000	4,000	0%	35%	20%
		Texas	2,000	<500	0%	20%	5%
		CO, NJ, OK	6,000	Surveyed but no usage reported			
Endive/Escarole	CADPR (2012-2016)	California (62%)	800	<500	Data withheld due to likely overcounting caused by reporting issue.		
	Not Surveyed at National Level	Other States (38%)	Not Surveyed at National Level				
Kale	CADPR (2012-2016)	California (27%)	6,000	<500	Data withheld due to likely overcounting caused by reporting issue.		
	Not Surveyed at National Level	Other States (73%)	Not Surveyed at National Level				

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Methomyl: National and State Summary Use and Usage Matrix

Crop	Data Source	State	Avg. Annual Crop Acres Grown†	Avg Annual Total Lbs. AI Applied ^a	Min. Annual PCT ^b	Max. Annual PCT ^b	Avg. Annual PCT ^b
Mustard (leafy green)	CADPR (2012-2016)	California (11%)	700	<500	Data withheld due to likely overcounting caused by reporting issue.		
	Not Surveyed at National Level	Other States (89%)	Not Surveyed at National Level				
Parsley	CADPR (2012-2016)	California (48%)	4,000	<500	Data withheld due to likely overcounting caused by reporting issue.		
	Not Surveyed at National Level	Other States (52%)	Not Surveyed at National Level				
Swiss Chard	CADPR (2012-2016)	California (--%)	2,000	<500	Data withheld due to likely overcounting caused by reporting issue.		
	Not Surveyed at National Level	Other States (--%)	Not Surveyed at National Level				
Other Leafy Greens	Not Surveyed at National Level						
Brassica Vegetables	<i>See Crops Below (Full Crop Group Not Registered)</i>						
Broccoli	Kynetec (2013-2017)	California	100,000	800	<2.5%	<2.5%	<2.5%
Cabbage	Kynetec (2013-2017)	California	10,000	<500	0%	5%	<2.5%
		Florida	9,000	<500	0%	10%	<2.5%
		Michigan	3,000	<500	0%	50%	10%
		New York	9,000	2,000	0%	40%	20%
		North Carolina	3,000	900	0%	40%	30%
		Wisconsin	3,000	<500	0%	5%	<2.5%
		AZ, CO, GA, TX	10,000	Surveyed but no usage reported			
Cauliflower	Kynetec (2013-2017)	California	30,000	500	0%	<2.5%	<2.5%
		Arizona	4,000	Surveyed but no usage reported			
Brussels Sprouts	CADPR (2012-2016)	California (96%)	3,000	2,000	Data withheld due to likely overcounting caused by reporting issue.		
Broccoli, Chinese	CADPR (2012-2016)	California (--%)	--	Surveyed but no usage reported			
	Not Surveyed at National Level	Other States (--%)	Not Surveyed at National Level				

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Methomyl: National and State Summary Use and Usage Matrix

Crop	Data Source	State	Avg. Annual Crop Acres Grown†	Avg Annual Total Lbs. AI Applied ^a	Min. Annual PCT ^b	Max. Annual PCT ^b	Avg. Annual PCT ^b
Broccoli Raab/Rapini	CADPR (2012-2016)	California (--%)	--	Surveyed but no usage reported			
	Not Surveyed at National Level	Other States (--%)	Not Surveyed at National Level				
Cabbage, Chinese	CADPR (2012-2016)	California (--%)	6,000	<500	Data withheld due to likely overcounting caused by reporting issue.		
	Not Surveyed at National Level	Other States (--%)	Not Surveyed at National Level				
Collards	CADPR (2012-2016)	California (5%)	<500	<500	Data withheld due to likely overcounting caused by reporting issue.		
	Not Surveyed at National Level	Other States (95%)	Not Surveyed at National Level				
Legume Vegetables	<i>See Crops Below (Full Crop Group Not Registered)</i>						
Beans/Peas, Dried	Kynetec (2013-2017)	California	50,000	900	0%	20%	<5%
		Texas	30,000	1,000	0%	65%	15%
		Washington	300,000	1,000	0%	10%	<2.5%
		CO, ID, MI, MN, MT, NE, NY, ND, WY	2,800,000	Surveyed but no usage reported			
Beans, Succulent	Kynetec (2013-2017)	California	8,000	6,000	0%	70%	60%
		Florida	30,000	7,000	0%	60%	40%
		New York	30,000	<500	0%	<2.5%	<2.5%
		Pennsylvania	10,000	<500	0%	25%	5%
		Texas	4,000	<500	0%	100%	20%
		GA, IL, IN, MI, NC, OR, TN, WI	100,000	Surveyed but no usage reported			
Peas, Succulent	Kynetec (2013-2017)	Wisconsin	30,000	<500	0%	<2.5%	<2.5%
		MN, NY, OR, WA	100,000	Surveyed but no usage reported			
Lima Beans	Kynetec (2013-2017)	California	7,000	2,000	0%	30%	15%
		Delaware	10,000	2,000	0%	50%	20%
		GA, IL, MD, SC, WA, WI	10,000	Surveyed but no usage reported			

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Methomyl: National and State Summary Use and Usage Matrix

Crop	Data Source	State	Avg. Annual Crop Acres Grown†	Avg Annual Total Lbs. AI Applied ^a	Min. Annual PCT ^b	Max. Annual PCT ^b	Avg. Annual PCT ^b
Soybeans	Kynetec (2013-2017)	Alabama	500,000	<500	0%	<2.5%	<2.5%
		Arkansas	3,200,000	900	0%	<2.5%	<2.5%
		Illinois	9,900,000	<500	0%	<2.5%	<2.5%
		Texas	200,000	<500	0%	5%	<2.5%
		DE, GA, IL, IN, IA, KS, KY, LA, MD, MI, MN, MS, MO, NE, NY, NC, ND, OH, OK, PA, SC, SD, TN, TX, VA, WI	69,800,000	Surveyed but no usage reported			
Fruiting Vegetables	<i>See Crops Below (Full Crop Group Not Registered)</i>						
Peppers	Kynetec (2013-2017)	California	30,000	2,000	<2.5%	10%	<5%
		Florida	10,000	5,000	0%	50%	45%
		New Jersey	4,000	<500	0%	5%	<2.5%
		North Carolina	2,000	<500	0%	<2.5%	<2.5%
		Ohio	3,000	<500	0%	5%	<2.5%
		AZ, GA, NM, TX	10,000	Surveyed but no usage reported			
Tomatoes	Kynetec (2013-2017)	California	300,000	10,000	<2.5%	5%	<5%
		Florida	30,000	8,000	0%	40%	15%
Eggplant	CADPR (2012-2016)	California (23%)	1,000	<500	Data withheld due to likely overcounting caused by reporting issue.		
	Not Surveyed at National Level	Other States (87%)	Not Surveyed at National Level				
Tomatillo	CADPR (2012-2016)	California (--%)	<500	Surveyed but no usage reported			
	Not Surveyed at National Level	Other States (--%)	Not Surveyed at National Level				
Cucurbit Vegetables	<i>See Crops Below (Full Crop Group Not Registered)</i>						
Cucumbers	Kynetec (2013-2017)	California	9,000	<500	0%	10%	5%
		Florida	30,000	3,000	0%	45%	20%
		DE, GA, MD, MI, MO, NJ, NC, SC, TX, WA, WI	80,000	Surveyed but no usage reported			

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Methomyl: National and State Summary Use and Usage Matrix

Crop	Data Source	State	Avg. Annual Crop Acres Grown†	Avg Annual Total Lbs. AI Applied ^a	Min. Annual PCT ^b	Max. Annual PCT ^b	Avg. Annual PCT ^b
Pumpkins	Kynetec (2013-2017)	California	6,000	1,000	0%	35%	20%
		Michigan	7,000	<500	0%	<2.5%	<2.5%
		New Jersey	2,000	<500	0%	15%	<5%
		New York	6,000	<500	0%	<2.5%	<2.5%
		Pennsylvania	6,000	1,000	0%	45%	15%
		Wisconsin	2,000	<500	0%	15%	<5%
		<i>CO, CT, IL, IN, MD, MA, MN, MO, NM, NC, OH, OR, PA, TN, TX, VA, WA</i>	50,000	Surveyed but no usage reported			
Squash	Kynetec (2013-2017)	California	6,000	800	0%	15%	10%
		Florida	10,000	<500	0%	5%	<2.5%
		New Jersey	3,000	<500	0%	5%	<2.5%
		New York	5,000	<500	0%	60%	15%
		North Carolina	3,000	<500	0%	15%	<5%
		Ohio	2,000	<500	0%	10%	<2.5%
		Pennsylvania	900	<500	0%	95%	25%
		Tennessee	500	<500	0%	100%	20%
		Wisconsin	1,000	<500	0%	15%	<5%
		<i>CT, GA, MA, MI, OR, SC, TX</i>	20,000	Surveyed but no usage reported			
Melons (cantaloupes)	Kynetec (2013-2017)	California	30,000	4,000	0%	20%	10%
		Texas	3,000	<500	0%	5%	<2.5%
		<i>AZ, FL, GA, IN, NC, SC</i>	20,000	Surveyed but no usage reported			
Melons (watermelon)	Kynetec (2013-2017)	California	10,000	4,000	0%	50%	25%
		Florida	20,000	1,000	0%	35%	15%
		Texas	30,000	<500	0%	10%	<2.5%
		<i>AL, AZ, GA, IN, MD, MS, MO, NC, OK, SC</i>	50,000	Surveyed but no usage reported			
Melons (honeydew)	CADPR (2012-2016)	California (81%)	9,000	Surveyed but no usage reported			
	Not Surveyed at National Level	Other States (19%)	Not Surveyed at National Level				
Melons (other)	Not Surveyed at National Level						

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Methomyl: National and State Summary Use and Usage Matrix

Crop	Data Source	State	Avg. Annual Crop Acres Grown†	Avg Annual Total Lbs. AI Applied ^a	Min. Annual PCT ^b	Max. Annual PCT ^b	Avg. Annual PCT ^b
Citrus Fruit		<i>See Crops Below (Full Crop Group Not Registered)</i>					
Grapefruit (registered only in CA, AZ, & HI) (AZ & HI Not surveyed)	CADPR (2012-2016)	California (12%)	10,000	<500	Data withheld due to likely overcounting caused by reporting issue.		
	Not Surveyed at National Level	AZ, HI	Not Surveyed at National Level				
Lemons (registered only in CA, AZ, & HI) (HI Not surveyed)	Kynetec (2013-2017)	California	50,000	1,000	<2.5%	5%	<2.5%
	Kynetec (2013-2017)	AZ	9,000	Surveyed but no usage reported			
	Not Surveyed at National Level	Hawaii	Not Surveyed at National Level				
Oranges (registered only in CA, AZ, & HI) (AZ & HI Not surveyed)	Kynetec (2013-2017)	California	200,000	4,000	<2.5%	5%	<2.5%
	Kynetec (2013-2017)	AZ, HI	Not Surveyed at National Level				
Tangerines (registered only in CA, AZ, & HI) (AZ and HI Not surveyed)	CADPR (2012-2016)	California (79%)	30,000	<500	Data withheld due to likely overcounting caused by reporting issue.		
	Not Surveyed at National Level	Other States (21%)	Not Surveyed at National Level				
Tangelo (registered only in CA, AZ, & HI) (AZ and HI Not surveyed)	CADPR (2012-2016)	California (42%)	2,000	<500	Data withheld due to likely overcounting caused by reporting issue.		
	Not Surveyed at National Level	Other States (58%)	Not Surveyed at National Level				
Pome Fruit		<i>See Crops Below (Full Crop Group Not Registered)</i>					
Apples	Kynetec (2013-2017)	Michigan	40,000	<500	0%	<2.5%	<2.5%
		New York	50,000	2,000	0%	<2.5%	<2.5%
		Ohio	5,000	<500	0%	5%	<2.5%
		Pennsylvania	20,000	<500	0%	<2.5%	<2.5%
		Virginia	10,000	9,000	0%	90%	55%
		West Virginia	5,000	2,000	0%	100%	50%
		CA, NC, OR, WA	200,000	Surveyed but no usage reported			

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Methomyl: National and State Summary Use and Usage Matrix

Crop	Data Source	State	Avg. Annual Crop Acres Grown†	Avg Annual Total Lbs. AI Applied ^a	Min. Annual PCT ^b	Max. Annual PCT ^b	Avg. Annual PCT ^b
Pears (registered only in CT, DE, NH, NJ, NY, MD, ME, MA, PA, RI, & VT) (No registered states surveyed)	Not Surveyed at National Level						
Stone Fruit	<i>See Crops Below (Full Crop Group Not Registered)</i>						
Peaches	Kynetec (2013-2017)	California	50,000	<500	0%	<2.5%	<2.5%
		Michigan	4,000	<500	0%	45%	20%
		New Jersey	5,000	1,000	0%	100%	20%
		Pennsylvania	5,000	800	<5%	45%	15%
		Texas	5,000	<500	0%	10%	<2.5%
		AL, CO, GA, IL, NY, SC, WA	30,000	Surveyed but no usage reported			
Nectarine (registered in AZ and CA only) (AZ not surveyed)	CADPR (2012-2016)	California (87%)	20,000	3,000	Data withheld due to likely overcounting caused by reporting issue.		
	Not Surveyed at National Level	Other States (13%)	Not Surveyed at National Level				
Berries and Small Fruit	<i>See Crops Below (Full Crop Group Not Registered)</i>						
Blueberries	NASS (2015 & 2017)	Georgia	13,000 (tame); <500 (wild)	Surveyed but no usage reported			
		Michigan	30,000	10,000	0%	60%	50%
		New Jersey	10,000	6,000	0%	55%	50%
		North Carolina	7,000 (tame); <500 (wild)	Surveyed but no usage reported			
		Oregon	10,000	2,000	0%	15%	15%
		Washington	10,000	2,000	0%	30%	30%
	CADPR (2012-2016)	California (5%)	5,000	600	Data withheld due to likely overcounting caused by reporting issue.		
Tree Nuts	<i>See Crops Below (Full Crop Group Not Registered)</i>						
Pecans (AL, AR, FL, GA, LA, KY, NC, MS, SC, TN, VA, & WV only) (only AL, GA, and LA are surveyed)	Kynetec (2013-2017)	AL, GA, LA	100,000	Surveyed but no usage reported			

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Methomyl: National and State Summary Use and Usage Matrix

Crop	Data Source	State	Avg. Annual Crop Acres Grown†	Avg Annual Total Lbs. AI Applied ^a	Min. Annual PCT ^b	Max. Annual PCT ^b	Avg. Annual PCT ^b
Cereal Grains	<i>See Crops Below (Full Crop Group Not Registered)</i>						
Corn, field	Kynetec (2013-2017)	California	400,000	<500	0%	<2.5%	<2.5%
		Illinois	11,800,000	500	0%	<2.5%	<2.5%
		Maryland	500,000	800	0%	5%	<2.5%
		North Carolina	900,000	<500	0%	<1	<1
		Pennsylvania	1,500,000	<500	0%	<2.5%	<2.5%
		<i>AL, AR, CO, DE, GA, ID, IN, IA, KS, KY, LA, MI, MN, MS, MO, NE, NM, NY, NC, ND, OH, OK, SC, SD, TN, TX, VA, WA, WI, WY</i>	77,600,000	Surveyed but no usage reported			
Sweet Corn	Kynetec (2013-2017)	California	30,000	40,000	0%	80%	55%
		Florida	40,000	90,000	0%	100%	90%
		Georgia	20,000	10,000	0%	95%	30%
		Illinois	20,000	<500	0%	<2.5%	<2.5%
		Michigan	10,000	<500	0%	10%	<5%
		New Jersey	7,000	1,000	0%	65%	20%
		New York	30,000	30,000	0%	70%	45%
		Ohio	20,000	<500	0%	<2.5%	<2.5%
		Pennsylvania	10,000	4,000	0%	70%	30%
		Wisconsin	70,000	600	0%	5%	<2.5%
		<i>MN, OR, WA</i>	200,000	Surveyed but no usage reported			
Popcorn	Not Surveyed at National Level						
Sorghum (Milo)	Kynetec (2013-2017)	Arkansas	300,000	<500	0%	5%	<2.5%
		Georgia	40,000	<500	0%	<2.5%	<2.5%
		Oklahoma	400,000	<500	0%	<2.5%	<2.5%
		Texas	2,300,000	3,000	0%	<2.5%	<2.5%
		<i>CO, IL, KS, LA, MO, NE, NM, SD</i>	4,200,000	Surveyed but no usage reported			
Wheat, Spring (ID, OR, WA only)	Not Surveyed at National Level						
Wheat, Winter (ID, OR, WA only)	Not Surveyed at National Level						

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Methomyl: National and State Summary Use and Usage Matrix

Crop	Data Source	State	Avg. Annual Crop Acres Grown†	Avg Annual Total Lbs. AI Applied ^a	Min. Annual PCT ^b	Max. Annual PCT ^b	Avg. Annual PCT ^b	
Forage, Fodder and Hay		<i>See Crops Below (Full Crop Group Not Registered)</i>						
Alfalfa	Kynetec (2013-2017)	Arizona	300,000	6,000	<5%	15%	<5%	
		California	900,000	8,000	<2.5%	10%	<2.5%	
		Kansas	600,000	1,000	0%	<2.5%	<2.5%	
		Oklahoma	200,000	<500	<2.5%	<2.5%	<2.5%	
		Pennsylvania	300,000	700	0%	<2.5%	<2.5%	
		CO, ID, IL, IN, IA, KY, MI, MN, MO, MT, NE, NV, NM, NY, ND, OH, OR, SD, TX, UT, VA, WA, WI, WY	15,300,000	Surveyed but no usage reported				
Pasture	Not Surveyed at National Level							
Sod Farm	Not Surveyed at National Level							
Herbs and Spices		<i>See Crops Below (Full Crop Group Not Registered)</i>						
Anise	CADPR (2012-2016)	California (--%)	--	Surveyed but no usage reported				
	Not Surveyed at National Level	Other States (--%)	Not Surveyed at National Level					
Mint	CADPR (2012-2016)	California (oil 3%; leaves - --%)	1,000	<500	Data withheld due to likely overcounting caused by reporting issue.			
	Not Surveyed at National Level	Other States (oil 97%, leaves --%)	Not Surveyed at National Level					
Oil Seeds		<i>See Crops Below (Full Crop Group Not Registered)</i>						
Cotton	Kynetec (2013-2017)	Arizona	200,000	<500	0%	<2.5%	<2.5%	
		Louisiana	200,000	<500	0%	5%	<2.5%	
		AL, AR, CA, FL, GA, KS, MS, MO, NC, OK, SC, TN, TX	10,000,000	Surveyed but no usage reported				
Stalk, Stem, and Lead Petiole Vegetables		<i>See Crops Below (Full Crop Group Not Registered)</i>						
Asparagus	Kynetec (2013-2017)	California	10,000	900	<2.5%	15%	5%	
		Michigan	10,000	<500	0%	10%	<2.5%	
		WA	5,000	Surveyed but no usage reported				
Celery	Kynetec (2013-2017)	California	30,000	7,000	0%	15%	15%	
		Michigan	2,000	2,000	0%	100%	55%	

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Methomyl: National and State Summary Use and Usage Matrix

Crop	Data Source	State	Avg. Annual Crop Acres Grown†	Avg Annual Total Lbs. AI Applied ^a	Min. Annual PCT ^b	Max. Annual PCT ^b	Avg. Annual PCT ^b
Tropical and Subtropical Fruit	<i>See Crops Below (Full Crop Group Not Registered)</i>						
Avocado	CADPR (2012-2016)	California (81%)	60,000	Surveyed but no usage reported			
Pomegranate	CADPR (2012-2016)	California (98%)	20,000	10,000	Data withheld due to likely overcounting caused by reporting issue.		
Misc. Crops	<i>See Crops Below (Full Crop Group Not Registered)</i>						
Peanuts	Kynetec (2013-2017)	Alabama	200,000	<500	0%	<2.5%	<2.5%
		Florida	200,000	3,000	0%	5%	<5%
		North Carolina	90,000	<500	0%	<2.5%	<2.5%
		Texas	100,000	<500	0%	<2.5%	<2.5%
		GA, OK, SC, VA	800,000	Surveyed but no usage reported			
Tobacco	Kynetec (2013-2017)	Georgia	10,000	900	<5%	20%	10%
		Kentucky	90,000	<500	0%	<2.5%	<2.5%
		North Carolina	200,000	2,000	0%	10%	<2.5%
		Pennsylvania	8,000	<500	0%	15%	<5%
		OH, SC, TN, VA	60,000	Surveyed but no usage reported			
For use on non-bearing fruit, grape and nut nursery stock (field grown) in the state of California) (CA SLN only)	<i>See Crops Below (Full Crop Group Not Registered)</i>						
Citrus Fruit Trees (non-bearing) (CA only)	<i>See Crops Below (Full Crop Group Not Registered)</i>						
Grapefruit (non-bearing)	CADPR (2012-2016)	Also registered for bearing use. See combined usage above					
Lemon (non-bearing)	CADPR (2012-2016)	Also registered for bearing use. See combined usage above					
Orange (non-bearing)	CADPR (2012-2016)	Also registered for bearing use. See combined usage above					
Tangelo (non-bearing)	CADPR (2012-2016)	Also registered for bearing use. See combined usage above					
Tangerine (non-bearing)	CADPR (2012-2016)	Also registered for bearing use. See combined usage above					
Pomelo (non-bearing)	CADPR (2012-2016)	California (--%)	--	Surveyed but no usage reported			
Kumquat (non-bearing)	CADPR (2012-2016)	California (71%)	<500	Surveyed but no usage reported			

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Methomyl: National and State Summary Use and Usage Matrix

Crop	Data Source	State	Avg. Annual Crop Acres Grown [†]	Avg Annual Total Lbs. AI Applied ^a	Min. Annual PCT ^b	Max. Annual PCT ^b	Avg. Annual PCT ^b
Pome Fruit Trees (non-bearing) (CA only)	<i>See Crops Below (Full Crop Group Not Registered)</i>						
Apples (non-bearing)	CADPR (2012-2016)	Also registered for bearing use. See combined usage above					
Pears (non-bearing)	CADPR (2012-2016)	California (21%)	10,000	Surveyed but no usage reported			
Asian Pears (non-bearing)	CADPR (2012-2016)	California (--%)	--	Surveyed but no usage reported			
Quince (non-bearing)	CADPR (2012-2016)	California (--%)	--	Surveyed but no usage reported			
Stone Fruit Trees (non-bearing) (CA only)	<i>See Crops Below (Full Crop Group Not Registered)</i>						
Apricot (non-bearing)	CADPR (2012-2016)	California (84%)	10,000	<500	Data withheld due to likely overcounting caused by reporting issue.		
Cherry (non-bearing)	CADPR (2012-2016)	California (35%)	40,000	Surveyed but no usage reported			
Jujube (non-bearing)	CADPR (2012-2016)	California (--%)	--	Surveyed but no usage reported			
Nectarine (non-bearing)	CADPR (2012-2016)	Also registered for bearing use. See combined usage above					
Peaches (non-bearing)	CADPR (2012-2016)	Also registered for bearing use. See combined usage above					
Plums (non-bearing) (CA only)	CADPR (2012-2016)	California (--%)	20,000	<500	Data withheld due to likely overcounting caused by reporting issue.		
Prunes (non-bearing) (CA only)	CADPR (2012-2016)	California (--%)	60,000	<500	Data withheld due to likely overcounting caused by reporting issue.		
Pluot (non-bearing)	CADPR (2012-2016)	California (98%)	3,000	Surveyed but no usage reported			
Tree Nuts (non-bearing) (CA only)	<i>See Crops Below (Full Crop Group Not Registered)</i>						
Almonds (non-bearing)	CADPR (2012-2016)	California (100%)	200,000	<500	Data withheld due to likely overcounting caused by reporting issue.		
Walnuts (non-bearing)	CADPR (2012-2016)	California (99%)	60,000	<500	Data withheld due to likely overcounting caused by reporting issue.		
Pecans (non-bearing)	CADPR (2012-2016)	California (0.6%)	--	Surveyed but no usage reported			
Pistachios (non-bearing)	CADPR (2012-2016)	California (98%)	--	Surveyed but no usage reported			
Chestnuts (non-bearing)	CADPR (2012-2016)	California (13%)	--	Surveyed but no usage reported			

(Continued on next page)

Methomyl: National and State Summary Use and Usage Matrix

Crop	Data Source	State	Avg. Annual Crop Acres Grown [†]	Avg Annual Total Lbs. AI Applied ^a	Min. Annual PCT ^b	Max. Annual PCT ^b	Avg. Annual PCT ^b
Tropical and Subtropical Fruit (non-bearing) (CA only)	<i>See Crops Below (Full Crop Group Not Registered)</i>						
Avocado	CADPR (2012-2016)	Also registered for bearing use. See combined usage above					
Pomegranate	CADPR (2012-2016)	Also registered for bearing use. See combined usage above					
Grapes (non-bearing) (CA only)	<i>See Crops Below (Full Crop Group Not Registered)</i>						
Grapes, Table and Wine (non-bearing)	CADPR (2012-2016)	California (83%)	60,000	2,000	Data withheld due to likely overcounting caused by reporting issue.		
Grapes, Raisin (non-bearing)	CADPR (2012-2016)	California (83%)	2,000	Surveyed but no usage reported			

Notes	
Kynetec (YEAR-YEAR)	Surveyed by MRD Data, and Year(s) of data included. Values rounded.
NASS (YEAR)	Surveyed by NASS, and Year(s) of data included. Values rounded.
CADPR (YEAR)	Surveyed by CADPR and Year(s) of data included. Values rounded. <u>Percent of crop grown in California included under state. Crops with reported CADPR data, but less than 80% of crop grown in California, are grown in other states, but other survey data is unavailable.</u>
*	California crop. Over than 80% of crop grown in California. California usage is considered to be representative of National usage.
a	The PCTs displayed in this document may differ from those displayed in the SLUA and other BEAD documents, because different calculation methods were used.
b	The pounds AI displayed in this document may differ from those displayed in the SLUA and other BEAD documents, because different calculation methods were used.
†	CAG represents the total number of acres that are grown of the crop in each state. It is independent of treatment with any pesticide.
--	Data unavailable.

Methomyl: National and State Summary Use and Usage Matrix

Non-Agricultural Usage

The non-agricultural sites with registered uses of methomyl are provided in Table 3. National non-agricultural usage data is limited. The only site with reported usage is residential/ commercial/ industrial areas with 108 pounds applied in the Northeast U.S. in 2012 (Kline 2012). Considering that the lowest agricultural usage of methomyl in the past 5 years was 526,600 lbs in 2015, non-agricultural usage of methomyl only represents 0.02% of total usage and is considered minimal.

Table 3. National Methomyl Non-Agricultural Usage and Use by Crop (Data Averaged and Rounded Over Reported Years)

Site	Data Source	Avg. Annual Pounds AI Applied ^a	Avg. Annual Acres Treated ^b	Max Single Labeled Rate ^c
Residential/ Commercial/ Industrial Areas (Indoor & Outdoor)	Kline (2012)	100	Surveyed but no usage reported	0.218
Animal Feedlot	Not Surveyed at the National Level			0.218
Animal Housing Premises	Not Surveyed at the National Level			0.218
Animal Kennels/Sleeping Quarters	Not Surveyed at the National Level			0.218
Barns/ Barnyards/ Auction Barns	Not Surveyed at the National Level			0.218
Dairy Milking Stalls/Parlors	Not Surveyed at the National Level			0.218
Food Processing Plants	Not Surveyed at the National Level			0.218
Food Warehouse (commercial storage/warehouse premises)	Not Surveyed at the National Level			0.218
Food Warehouse (stores/markets/supermarkets)	Not Surveyed at the National Level			0.218

Notes	
Kline (Year)	Nonagricultural usage surveyed by market research firms.
a	The pounds AI displayed in this document may differ from those displayed in the SLUA and other BEAD documents, because different calculation methods were used.
b	Total Acres Treated accounts for multiple applications to a single area. This may overestimate the number of acres treated as some acres are treated more than once.
c	Max labeled rate from the 2016 Methomyl Label Data Report