

## **APPENDIX 1-4. Usage Data for Glyphosate - SUUM**

See attached memorandum, Glyphosate Case (103601, 103604, 103607, 103608, 103613, 417300) National and State Summary Use and Usage Matrix, revised date of May 19, 2020, from the Biological and Economics Analysis Division.



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

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

April 15, 2020 (*revised May 19, 2020*)

**MEMORANDUM**

**SUBJECT:** Glyphosate Case (103601, 103604, 103605, 103607, 103608, 103613, 417300) National and State Summary Use and Usage Matrix

**FROM:** Claire Paisley-Jones, Biologist  
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**THRU:** Matthew Crowley, Acting Chief  
Science Information and Analysis Branch  
Biological and Economic Analysis Division (7503-P)

**TO:** Dana Spatz, Branch Chief, and  
Rosanna Louie-Juzwiak, Risk Assessment Process Leader  
Environmental Risk Branch III  
Environmental Fate and Effects Division

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**Introduction**

This document presents a summary of the use and usage data that are available to the Agency on this active ingredient, during the years listed.

This document provides all available estimates of pesticide usage data for on the listed active ingredient(s), nationally and by state. All registered use sites as of date provided in tables are listed although usage data are not available for every site.

The intended use of the data presented here is to inform assumptions about the use of the active ingredient(s) in the United States, and the extent, variability, and rate of that usage at the state level. Pesticide usage data are reported at the state level; usage data at smaller levels may not be statistically valid due to reduced sample size. Extent and variability of usage at the state level are presented using minimum, maximum, and average percent crop treated (PCT) over the five-year observation period. PCT is calculated as the percent of the acres grown for a crop that are treated with the active ingredient(s). Additionally, the data may inform assumptions about crops and states where this active ingredient is likely not being used, by identifying crops that are surveyed for but where usage is not observed during the observation period. The state level estimates of pesticide usage presented here (especially PCT) can be used to inform estimates of the proportion of a species range that may be exposed to this active ingredient.

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 publication 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. 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 (CDPR) 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 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, CDPR data is a census of all usage rather than a survey and is published annually.

**Kline and Company Data (Kline)** - proprietary pesticide usage data. Data cover 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 CDPR, and 1-2 years for NASS and Kline), regardless of whether usage is observed in each surveyed year. The presented data may thus underestimate the maximum yearly usage. Kynetec is the primary source of usage data because it is collected nationally and annually. It also provides usage data for the most sites among the available data sources. NASS data are used for crops which are not surveyed by Kynetec. CDPR data are used when neither national source surveys a crop. When over 80% of crop grown in California, California usage is considered to be representative of National usage. In these cases, CDPR data may be included in Table 1. When less than 80% of a crop is grown in California, but none of the national sources survey the crop, CDPR is included in Table 2 to represent only California usage. 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 specified in the tables as follows:

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 "NR" indicating that the use site is “Surveyed but no usage reported”. 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 "\*\*\*" indicating that the site is "Not Surveyed at National Level".

For some crops, CDPH has reported usage, but due to a reporting issue the data are not sufficiently reliable to provide an estimate. In these cases, Percent Crop Treated data are withheld. This is indicated with the notation "#".

In some cases, data is withheld by NASS to avoid disclosing data for individual operations. This is indicated with the notation "(D)".

### **Averaging**

The presented usage data are averaged over the number of years of available survey data based on sampling frequency (five years for Kynetec and CADPR, and 1-2 years for NASS), regardless of whether usage is observed in each surveyed year.

### **Rounding**

**Average pounds of active ingredient applied** – Annual average pounds of the pesticide reported applied for each agricultural crop (i.e., for surveyed states, not for the entire United States). Values are calculated by merging pesticide usage data across all observations within a year, averaging across year, and then rounding. Any surveyed year without reported usage for the AI is included as a value of zero pounds applied in the calculation of the average. Values are rounded using common rounding rules (i.e., the half round up method). **Note:** *If the estimated value is less than 500, then that value is labeled <500. Estimated values between 500 & <1,000,000 are rounded to 1 place value. Estimated values of 1,000,000 or greater are rounded to the hundred thousands' place value. (Examples: 478 would be reported as "<500"; 43,873 would be reported as "40,000"; 47,873,901 would be reported as "47,900,000").*

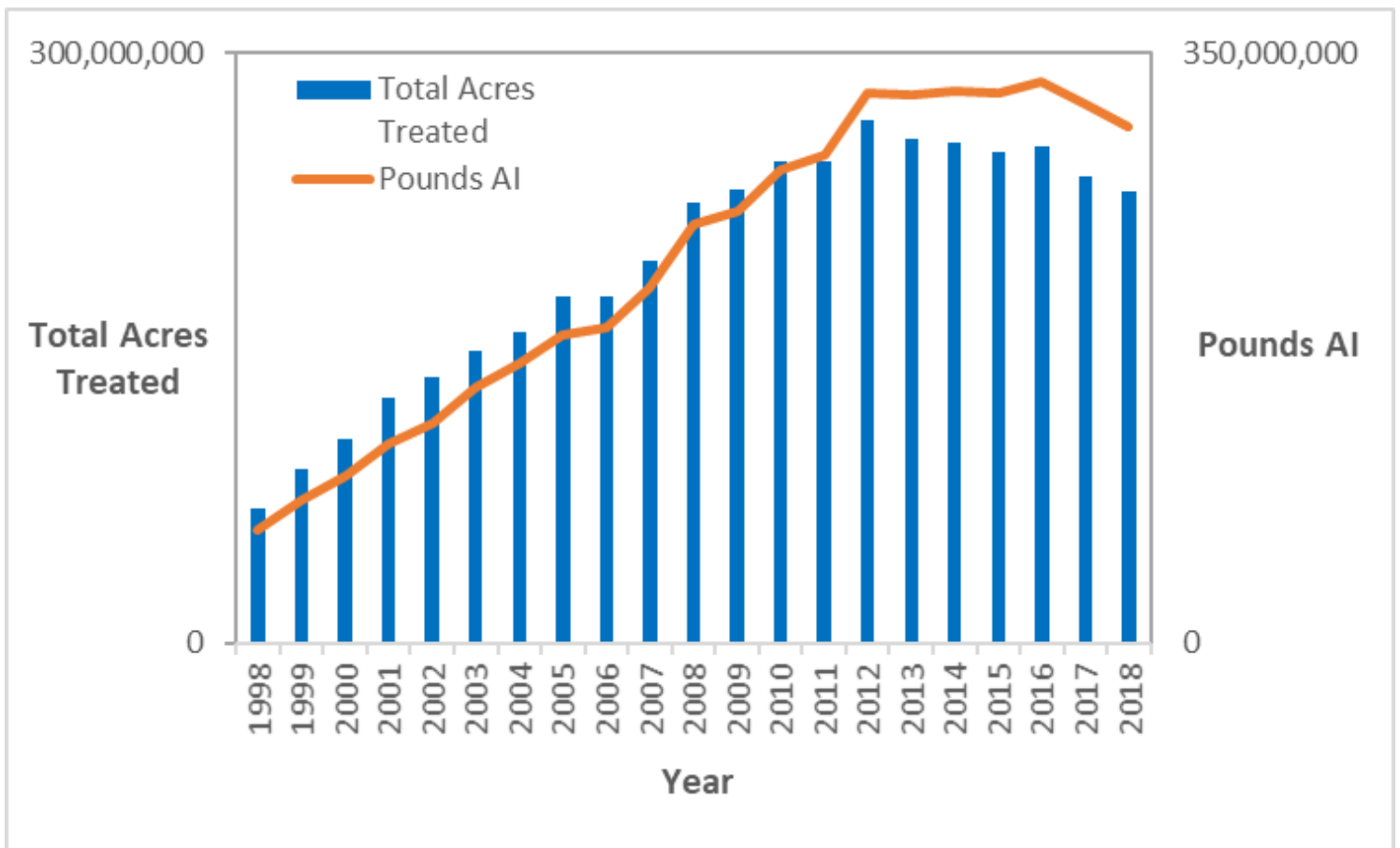
**Average annual total acres treated** – Annual average total acres treated with the pesticide reported for each agricultural crop (i.e., for surveyed states, not for the entire United States). Values are calculated by merging pesticide usage data across all observations within a year, averaging across year, and then rounding. Any surveyed year without reported usage for the AI is included as a value of zero acres treated in the calculation of the average. Values are rounded using common rounding rules (i.e., the half round up method). **Note:** *If the estimated value is less than 500, then that value is labeled <500. Estimated values between 500 & <1,000,000 are rounded to 1 place value. Estimated values of 1,000,000 or greater are rounded to the hundred thousands' place value. (Examples: 478 would be reported as "<500"; 43,873 would be reported as "40,000"; 47,873,901 would be reported as "47,900,000").*

**Average percent of crop treated** - Values are calculated by averaging within a year, averaging across year, and then rounding to the nearest multiple of 5. **Note:** If the estimated value is less than 1, then the value is labeled <1. If the estimated value is less than 2.5, then the value is labeled <2.5.

**Maximum percent of crop treated** - Value is the single maximum annual average value reported across all observations, across all years. The value is rounded up to the nearest multiple of 5. **Note:** *If the estimated value is less than 2.5, then the value is labeled <2.5.*

5/19/2020 revision notes

- duplicate line for strawberries in Table 1 removed.
- percent applied by air for sugar beets corrected.



**Figure 1. Glyphosate Total Acres Treated and Total Pounds A.I. Applied (1998-2018).**  
*(Does not include crops surveyed only by NASS and CDPR, as indicated in Table 1)*

Source: Kynetec USA, Inc. 2019. "The AgroTrak® Study from Kynetec USA, Inc." Database Subset: 1998-2018

**Table 1. National Glyphosate Agricultural Usage by Crop. Data averaged over reported years. Values are rounded according to rounding rules provided in the Introduction.**

Crop	Data Source	States with Reported Usage	Avg. Annual Pounds AE Applied <sup>a</sup>	Avg. Annual Total Acres Treated <sup>b</sup>	Percent Applied by Air	Avg. Single Rate (lb AE/A)	Max Single Labeled Rate lb AE/a <sup>c</sup>
<b>Root and Tuber Vegetables Group</b>	+	+	+	+	+	+	<b>3.75</b>
Carrots	Kynetec (2014-2018)	CA, MI, WA, WI	2,000	2,000	0%	0.96	3.75
Potatoes	Kynetec (2014-2018)	CA, CO, FL, ID, ME, MI, MN, MT, NE, NY, NC, ND, OR, PA, WA, WI	100,000	200,000	<2.5%	0.94	3.75
Sugar Beets (Including Roundup Ready Sugar Beets)	Kynetec (2014-2018)	CA, CO, ID, MI, MN, MT, NE, ND, WY	2,300,000	2,400,000	<2.5%	0.97	3.75
<i>Other Root and Tuber Vegetables</i>	**	**	**	**	**	**	3.75
<b>3-07: Bulb Vegetable Group</b>	+	+	+	+	+	+	<b>3.75</b>
Garlic	Kynetec (2014-2018)	CA	4,000	2,000	0%	1.64	3.75
Onions	Kynetec (2014-2018)	CA, CO, ID, OR, WA	40,000	40,000	<2.5%	1.00	3.75
<i>Other Bulb Vegetables</i>	**	**	**	**	**	**	3.75
<b>4: Leafy Vegetables (Except Brassica Vegetables) Group</b>	+	+	+	+	+	+	<b>3.75</b>
Celery	Kynetec (2014-2018)	CA, MI	<500	<500	0%	0.97	3.75
Lettuce	Kynetec (2014-2018)	AZ, CA	10,000	7,000	0%	1.76	3.75
Spinach	Kynetec (2014-2018)	AZ, CA, TX	600	600	0%	1.09	3.75
<i>Other Leafy Vegetables (Except Brassica)</i>	**	**	**	**	**	**	3.75
<b>5: Brassica (Cole) Leafy Vegetables Group</b>	+	+	+	+	+	+	<b>3.75</b>
Broccoli	Kynetec (2014-2018)	CA	<500	<500	0%	1.13	3.75
Brussels Sprouts	CADPR (2013-2017)	CA	<500	<500	0%	1.88	3.75
Cabbage	Kynetec (2014-2018)	CA, FL, GA, MI, NY, NC, TX, WI	10,000	8,000	0%	1.38	3.75
Cauliflower	Kynetec (2014-2018)	AZ, CA	<500	<500	0%	1.77	3.75
<i>Other Brassica (Cole) Leafy Vegetables</i>	**	**	**	**	**	**	3.75

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Pounds AE Applied <sup>a</sup>	Avg. Annual Total Acres Treated <sup>b</sup>	Percent Applied by Air	Avg. Single Rate (lb AE/A)	Max Single Labeled Rate lb AE/a <sup>c</sup>
<b>Legume Vegetables (Succulent or Dried) Group</b>	+	+	+	+	+	+	<b>3.75</b>
Beans (Snap, Bush, Pole, String)	Kynetec (2014-2018)	FL, IL, MI, NY, OR, PA, WI	50,000	40,000	0%	1.23	3.75
Dry Beans/Peas	Kynetec (2014-2018)	CA, CO, ID, MI, MN, MT, NE, NY, ND, TX, WA, WY	1,500,000	1,900,000	<1%	0.79	3.75
Lima Beans	Kynetec (2014-2018)	CA, IL, WA, WI	4,000	5,000	0%	0.84	3.75
Peas (Fresh/Green/Sweet)	Kynetec (2014-2018)	MN, NY, OR, WA, WI	30,000	30,000	<1%	0.93	3.75
Soybeans (including Roundup Ready Soybeans)	Kynetec (2014-2018)	AL, AR, 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	#####	#####	<2.5%	1.00	3.75
<b>Fruiting Vegetables (except Cucurbits)</b>	+	+	+	+	+	+	<b>3.75</b>
Peppers	Kynetec (2014-2018)	AZ, CA, FL, GA, NM, NC, TX	20,000	10,000	<1%	1.49	3.75
Tomatoes	Kynetec (2014-2018)	CA, FL	100,000	100,000	10%	1.15	3.75
<i>Other Fruiting Vegetables</i>	**	**	**	**	**	**	3.75
<b>Cucurbit Vegetables Group</b>	+	+	+	+	+	+	<b>3.75</b>
Cantaloupes	Kynetec (2014-2018)	CA, FL, IN, TX	10,000	8,000	5%	1.56	3.75
Cucumbers	Kynetec (2014-2018)	CA, FL, GA, MI, MO, NC, WI	50,000	40,000	0%	1.37	3.75
Melons, Honeydew	NASS (2014, 2016, 2018)	CA	9,000	--	--	3.28	3.75
Pumpkins	Kynetec (2014-2018)	CA, CT, IL, IN, MD, MA, MI, MN, MO, NJ, NY, NC, OH, OR, PA, TN, VA, WA, WI	20,000	20,000	0%	1.25	3.75
Squash	Kynetec (2014-2018)	CA, CT, FL, GA, MA, MI, NY, NJ, NC, OH, OR, PA, SC, TX, WI	10,000	10,000	0%	1.20	3.75
Watermelons	Kynetec (2014-2018)	AL, CA, FL, GA, IN, MI, MO, NC, OK, SC, TX	20,000	20,000	5%	1.17	3.75
<i>Other Cucurbit Vegetables</i>	**	**	**	**	**	**	3.75



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<b>Citrus Fruits</b>	+	+	+	+	+	+	<b>3.75</b>
Grapefruit	Kynetec (2014-2018)	FL, TX	200,000	200,000	0%	1.58	3.75
Lemons	Kynetec (2014-2018)	AZ, CA	100,000	100,000	0%	1.37	3.75
Oranges	Kynetec (2014-2018)	CA, FL	2,100,000	1,600,000	0%	1.31	3.75
Tangelos, Bearing	NASS (2015)	FL	6,000	--	--	1.16	3.75
Tangerines, Bearing	NASS (2015)	CA, FL	100,000	--	--	1.69	3.75
<i>Other Citrus Fruits</i>	**	**	**	**	**	**	3.75
<b>Pome Fruits</b>	+	+	+	+	+	+	<b>3.75</b>
Apples	Kynetec (2014-2018)	CA, MI, NY, NC, OH, OR, PA, VA, WA	200,000	200,000	0%	0.81	3.75
Pears	Kynetec (2014-2018)	CA, OR, WA	40,000	60,000	0%	0.73	3.75
<i>Other Pome Fruits</i>	**	**	**	**	**	**	3.75
<b>12: Stone Fruits Group</b>	+	+	+	+	+	+	<b>3.75</b>
Apricots	Kynetec (2014-2018)	CA	9,000	10,000	0%	0.79	3.75
Cherries	Kynetec (2014-2018)	CA, MI, OR, WA	100,000	100,000	0%	0.94	3.75
Nectarines	CADPR (2013-2017)	CA	40,000	20,000	0%	1.27	3.75
Peaches	Kynetec (2014-2018)	AL, CA, CO, GA, MI, NJ, NY, PA, SC, TX, WA	90,000	90,000	0%	0.92	3.75
Plums/Prunes	Kynetec (2014-2018)	CA	100,000	100,000	0%	1.00	3.75
Plumcots, Pluot, and Other Plum-Apricot Hybrids	CADPR (2013-2017)	CA	<500	<500	0%	1.47	3.75
<i>Other Stone Fruits</i>	**	**	**	**	**	**	3.75
<b>13-07: Berry and Small Fruit</b>	+	+	+	+	+	+	<b>3.75</b>
Caneberries	Kynetec (2014-2018)	CA, OR	2,000	3,000	0%	0.91	3.75
Blueberries, Bearing	NASS (2015)	GA, MI, NC, NJ, OR, WA	20,000	--	--	2.02	3.75

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

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Grapes, Raisin	Kynetec (2014-2018)	CA	300,000	200,000	0%	1.31	3.75
Grapes, Table	Kynetec (2014-2018)	CA, NY	300,000	200,000	0%	1.87	3.75
Grapes, Wine	Kynetec (2014-2018)	CA, NY, WA	1,100,000	700,000	0%	1.69	3.75
Kiwifruit	CADPR (2013-2017)	CA	10,000	7,000	0%	1.48	3.75
Strawberries	Kynetec (2014-2018)	CA, FL, MI, NY, OR, PA	20,000	9,000	0%	1.98	3.75
<i>Other berries and small fruit</i>	**	**	**	**	**	**	3.75
<b>Tree Nut Group</b>	+	+	+	+	+	+	<b>3.75</b>
Almonds	Kynetec (2014-2018)	CA	2,100,000	1,900,000	0%	1.08	3.75
Hazelnuts	Kynetec (2014-2018)	OR	20,000	20,000	0%	1.20	3.75
Pecans	Kynetec (2014-2018)	AL, AZ, GA, LA, NM, OK, TX	300,000	400,000	0%	0.83	3.75
Pistachios	Kynetec (2014-2018)	CA	600,000	500,000	0%	1.14	3.75
Walnuts	Kynetec (2014-2018)	CA	600,000	600,000	0%	1.01	3.75
<i>Other Tree Nuts</i>	**	**	**	**	**	**	3.75
<b>Cereal Grains</b>	+	+	+	+	+	+	<b>3.75</b>
Barley	Kynetec (2014-2018)	CA, CO, ID, MN, MT, ND, OR, PA, SD, UT, VA, WA, WY	800,000	1,000,000	<2.5%	0.79	3.75
Corn, field (Including Roundup Ready Corn)	Kynetec (2014-2018)	AL, AR, CA, CO, DE, GA, ID, IL, IN, IA, KS, KY, LA, MD, MI, MN, MI, MO, NE, NM, NY, NC, ND, OH, OK, PA, SC, SD, TN, TX, VA, WA, WI, WY	90,400,000	93,100,000	<1%	0.97	3.75
Sweet Corn	Kynetec (2014-2018)	CA, FL, GA, IL, MI, MN, NJ, NY, OH, OR, PA, WA, WI	100,000	100,000	0%	1.11	3.75
Oats	NASS (2015)	KS, MI, MN, ND, NY, OH, PA, SD, TX, WI	200,000	--	--	1.60	3.75

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Rice	Kynetec (2014-2018)	AR, CA, LA, MI, MO, TX	1,700,000	1,700,000	35%	1.00	3.75
Sorghum (Milo)	Kynetec (2014-2018)	AR, CO, GA, IL, KS, LA, MO, NE, NM, OK, SD, TX	5,300,000	6,000,000	<2.5%	0.87	3.75
Wheat, Spring	Kynetec (2014-2018)	CA, ID, MN, MT, ND, OR, SD, WA	5,400,000	6,800,000	<1%	0.79	3.75
Wheat, Winter	Kynetec (2014-2018)	AR, CA, CO, GA, ID, IL, IN, KS, KY, MI, MO, MT, NE, NM, NC, ND, OH, OK, OR, SD, TN, TX, VA, WA, WI	7,000,000	8,300,000	<2.5%	0.85	3.75
<i>Other Cereal Grains</i>	**	**	**	**	**	**	3.75
<b>Grass Forage, Fodder and Hay Group</b>	+	+	+	+	+	+	<b>8.00</b>
Pastureland/Rangeland	Kynetec (2014-2018)	AL, AR, CA, CO, FL, GA, ID, IL, IN, IA, KS, KY, LA, MD, MI, MN, MI, MO, MT, ND, NE, NY, NC, OH, OK, OR, PA, SC, SD, TN, TX, UT, VA, WA, WV, WI, WY	700,000	800,000	<1%	0.92	8.0
<i>Other Grass Forage, Fodder and Hay</i>	**	**	**	**	**	**	8.00
<b>Nongrass Animal Feeds (Forage, Fodder, Straw, and Hay)</b>	+	+	+	+	+	+	<b>3.75</b>
Alfalfa (including Roundup Ready Alfalfa)	Kynetec (2014-2018)	AZ, CA, CO, ID, IL, IN, IA, KS, KY, MI, MN, MO, MT, NE, NV, NM, NY, ND, OH, OK, OR, PA, SD, TX, UT, VA, WA, WI, WY	1,800,000	1,800,000	5%	1.00	3.75
<i>Other Nongrass Animal Feeds (Forage, Fodder, Straw, and Hay)</i>	**	**	**	**	**	**	3.75
<b>Herbs and Spices Group</b>	+	+	+	+	+	+	<b>3.75</b>
Herbs and Spices	**	**	**	**	**	**	3.8

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<b>Oilseed Group</b>	+	+	+	+	+	+	<b>3.75</b>
Canola (oilseed rape) (including Roundup Ready Canola)	Kynetec (2014-2018)	MN, MT, ND, OK	1,000,000	1,300,000	<2.5%	0.74	3.75
Sunflowers	Kynetec (2014-2018)	CO, KS, MN, NE, ND, SD, TX	1,300,000	1,500,000	<2.5%	0.81	3.75
<i>Other Oil Seed Crops</i>	**	**	**	**	**	**	3.75
<b>Stalk, Stem and Leaf Petiole Vegetable Group</b>	+	+	+	+	+	+	<b>Full Crop Group Not Registered</b>
Asparagus	Kynetec (2014-2018)	CA, MI, WA	20,000	20,000	5%	1.01	3.75
Aloe vera	**	**	**	**	**	**	3.75
Bamboo shoots	**	**	**	**	**	**	3.75
Cactus (fruit and pads)	**	**	**	**	**	**	3.75
Palm (heart, leaves, oil)	**	**	**	**	**	**	3.75
<b>Topical and Subtropical Fruit Group</b>	+	+	+	+	+	+	<b>3.75</b>
Avocados	CADPR (2013-2017)	CA	80,000	70,000	15%	0.94	3.75
Dates, Bearing	NASS (2015)	CA	7,000	--	--	0.52	3.75
Figs	CADPR (2013-2017)	CA	20,000	10,000	0%	1.39	3.75
Olives	CADPR (2013-2017)	CA	30,000	20,000	5%	1.24	3.75
Persimmons	CADPR (2013-2017)	CA	4,000	2,000	100%	1.60	3.75
Pomegranates	CADPR (2013-2017)	CA	40,000	30,000	<2.5%	1.54	3.75
<i>Other Topical and Subtropical Fruits</i>	**	**	**	**	**	**	3.75

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Misc	+	+	+	+	+	+	Full Crop Group Not Registered
Artichoke	Kynetec (2014-2018)	CA	<500	<500	0%	1.45	3.75
Cotton (Including Roundup Ready Cotton)	Kynetec (2014-2018)	AL, AZ, AR, CA, FL, GA, KS, LA, MI, MO, NC, OK, SC, TN, TX	19,500,000	19,400,000	5%	0.82	3.75
Fallow	Kynetec (2014-2018)	CA, CO, ID, KS, LA, MN, MT, NE, ND, OK, OR, SD, TX, UT, WA, WY	13,900,000	16,600,000	<1%	0.84	3.75
Peanuts	Kynetec (2014-2018)	AL, FL, GA, NC, OK, SC, TX, VA	400,000	500,000	0%	0.93	3.75
Tobacco	Kynetec (2014-2018)	GA, KY, NC, OH, PA, TN, VA	30,000	30,000	0%	0.98	2.71
Kenaf, Leucaena	**	**	**	**	**	**	3.75
Sugarcane	**	**	**	**	**	**	3.75
Conservation Reserve Program (CRP) Land	**	**	**	**	**	**	3.75

Notes	
Kynetec (YEARS)	Agricultural usage surveyed by market research firm(s).
NASS (YEARS)	Surveyed by United States Department of Agriculture National Agricultural Statistics Service.
CADPR (YEARS)	Surveyed by the California Department of Pesticide Regulation. Used when 80% or more of crop is grown in California.
*	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 the 2013 JGTF Use Matrix.
+	See constituent crops below.
(D)	Data withheld by NASS to avoid disclosing data for individual operations.
NR	Surveyed by the indicated source in the years listed, but no usage reported.
--	Data unavailable.
**	Site not surveyed at national level.

**Table 2. National Glyphosate Agricultural Usage by Crop and State. Data averaged over reported years. Values are rounded according to rounding rules provided in the Introduction.**

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
<b>Root and Tuber Vegetables Group</b>	+	+	+	+	+	+	+
Carrots	Kynetec (2014-2018)	CA	70,000	<500	0%	<2.5%	<1%
Carrots	Kynetec (2014-2018)	MI	4,000	600	0%	70%	15%
Carrots	Kynetec (2014-2018)	WA	6,000	<500	0%	15%	5%
Carrots	Kynetec (2014-2018)	WI	4,000	500	0%	50%	20%
Carrots	Kynetec (2014-2018)	TX	3,000	NR	NR	NR	NR
Carrots	NASS (2014, 2016)	MN	900	NR	NR	NR	NR
Potatoes	Kynetec (2014-2018)	CA	40,000	9,000	0%	50%	25%
Potatoes	Kynetec (2014-2018)	CO	60,000	2,000	0%	10%	<2.5%
Potatoes	Kynetec (2014-2018)	FL	30,000	6,000	0%	35%	15%
Potatoes	Kynetec (2014-2018)	ID	300,000	30,000	10%	15%	10%
Potatoes	Kynetec (2014-2018)	ME	50,000	3,000	<1%	15%	10%
Potatoes	Kynetec (2014-2018)	MI	50,000	10,000	10%	55%	25%
Potatoes	Kynetec (2014-2018)	MN	40,000	3,000	<1%	15%	10%
Potatoes	Kynetec (2014-2018)	MT	10,000	3,000	15%	50%	30%
Potatoes	Kynetec (2014-2018)	NE	20,000	3,000	0%	40%	15%
Potatoes	Kynetec (2014-2018)	NY	10,000	8,000	40%	80%	55%
Potatoes	Kynetec (2014-2018)	NC	10,000	4,000	0%	40%	25%
Potatoes	Kynetec (2014-2018)	ND	80,000	4,000	0%	20%	10%
Potatoes	Kynetec (2014-2018)	OR	40,000	20,000	25%	55%	40%
Potatoes	Kynetec (2014-2018)	PA	6,000	900	0%	50%	20%
Potatoes	Kynetec (2014-2018)	WA	200,000	40,000	25%	40%	30%
Potatoes	Kynetec (2014-2018)	WI	70,000	6,000	<2.5%	20%	15%
Potatoes	Kynetec (2014-2018)	TX	20,000	NR	NR	NR	NR

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Sugar Beets	Kynetec (2014-2018)	CA	20,000	10,000	0%	85%	30%
Sugar Beets	Kynetec (2014-2018)	CO	30,000	70,000	85%	100%	100%
Sugar Beets	Kynetec (2014-2018)	ID	200,000	400,000	95%	100%	100%
Sugar Beets	Kynetec (2014-2018)	MI	100,000	300,000	95%	100%	100%
Sugar Beets	Kynetec (2014-2018)	MN	400,000	800,000	85%	100%	95%
Sugar Beets	Kynetec (2014-2018)	MT	40,000	100,000	100%	100%	100%
Sugar Beets	Kynetec (2014-2018)	NE	50,000	100,000	100%	100%	100%
Sugar Beets	Kynetec (2014-2018)	ND	200,000	400,000	95%	100%	100%
Sugar Beets	Kynetec (2014-2018)	WY	30,000	70,000	95%	100%	100%
Garden Beet	CDPR (2013-2017)	CA (21 %)	3,000	#	#	#	#
Garden Beet	**	<i>Other States</i>	**	**	**	**	**
Daikon	CDPR (2013-2017)	CA (79 %)	700	#	#	#	#
Daikon	**	<i>Other States</i>	**	**	**	**	**
Horseradish	CDPR (2013-2017)	CA (D %)	(D)	#	#	#	#
Horseradish	**	<i>Other States</i>	**	**	**	**	**
Parsnip	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Parsnip	**	<i>Other States</i>	**	**	**	**	**
Radish	CDPR (2013-2017)	CA (13 %)	2,000	#	#	#	#
Radish	**	<i>Other States</i>	**	**	**	**	**
Sweet Potato	CDPR (2013-2017)	CA (14 %)	20,000	#	#	#	#
Sweet Potato	**	<i>Other States</i>	**	**	**	**	**
Turnip	CDPR (2013-2017)	CA (1 %)	<500	#	#	#	#
Turnip	**	<i>Other States</i>	**	**	**	**	**
<i>Other Root and Tuber Vegetables</i>	**	**	**	**	**	**	**

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
<b>3-07: Bulb Vegetable Group</b>	+	+	+	+	+	+	+
Garlic	Kynetec (2014-2018)	CA	30,000	4,000	5%	15%	10%
Onions	Kynetec (2014-2018)	CA	50,000	7,000	10%	20%	10%
Onions	Kynetec (2014-2018)	CO	4,000	500	0%	90%	20%
Onions	Kynetec (2014-2018)	ID	8,000	6,000	75%	100%	95%
Onions	Kynetec (2014-2018)	OR	20,000	20,000	60%	80%	70%
Onions	Kynetec (2014-2018)	WA	20,000	10,000	25%	95%	55%
Onions	Kynetec (2014-2018)	NY	2,000	NR	NR	NR	NR
Onions	Kynetec (2014-2018)	TX	10,000	NR	NR	NR	NR
Onions	Kynetec (2014-2018)	GA	3,000	NR	NR	NR	NR
Onions	NASS (2014, 2016)	WI	2,000	NR	NR	NR	NR
Leek	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Leek	**	<i>Other States</i>	**	**	**	**	**
<i>Other Bulb Vegetables</i>	**	**	**	**	**	**	**
<b>4: Leafy Vegetables (Except Brassica Vegetables) Group</b>	+	+	+	+	+	+	+
Celery	Kynetec (2014-2018)	CA	30,000	<500	0%	<2.5%	<1%
Celery	Kynetec (2014-2018)	MI	2,000	<500	0%	85%	30%
Lettuce	Kynetec (2014-2018)	AZ	70,000	6,000	0%	25%	10%
Lettuce	Kynetec (2014-2018)	CA	200,000	6,000	0%	10%	<2.5%
Spinach	Kynetec (2014-2018)	AZ	10,000	<500	0%	15%	5%
Spinach	Kynetec (2014-2018)	CA	30,000	<500	0%	5%	<1%
Spinach	Kynetec (2014-2018)	TX	2,000	<500	0%	10%	<2.5%
Bok Choy	CDPR (2013-2017)	CA (43 %)	3,000	#	#	#	#
Bok Choy	**	<i>Other States</i>	**	**	**	**	**



Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Chinese Greens	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Chinese Greens	**	<i>Other States</i>	**	**	**	**	**
Dandelion Green	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Dandelion Green	**	<i>Other States</i>	**	**	**	**	**
Endive (Escarole)	CDPR (2013-2017)	CA (62 %)	1,000	#	#	#	#
Endive (Escarole)	**	<i>Other States</i>	**	**	**	**	**
Fennel	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Fennel	**	<i>Other States</i>	**	**	**	**	**
Radicchio	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Radicchio	**	<i>Other States</i>	**	**	**	**	**
Spinach	Kynetec (2014-2018)	CO	2,000	NR	NR	NR	NR
Spinach	Kynetec (2014-2018)	NJ	3,000	NR	NR	NR	NR
Spinach	Kynetec (2014-2018)	OK	2,000	NR	NR	NR	NR
Spinach	CDPR (2013-2017)	CA (59 %)	30,000	#	#	#	#
Swiss Chard	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Swiss Chard	**	<i>Other States</i>	**	**	**	**	**
Watercress	CDPR (2013-2017)	CA (31 %)	<500	#	#	#	#
Watercress	**	<i>Other States</i>	**	**	**	**	**
<i>Other Leafy Vegetables (Except Brassica)</i>	**	**	**	**	**	**	**
<b>5: Brassica (Cole) Leafy Vegetables Group</b>	+	+	+	+	+	+	+
Broccoli	Kynetec (2014-2018)	CA	100,000	<500	0%	<2.5%	<1%
Brussels Sprouts	CDPR (2013-2017)	CA (96%)	7,000	#	#	#	#
Cabbage	Kynetec (2014-2018)	CA	10,000	1,000	0%	45%	10%
Cabbage	Kynetec (2014-2018)	FL	9,000	2,000	0%	45%	10%
Cabbage	Kynetec (2014-2018)	GA	5,000	<500	0%	5%	<1%
Cabbage	Kynetec (2014-2018)	MI	4,000	600	0%	55%	20%

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Cabbage	Kynetec (2014-2018)	NY	9,000	6,000	0%	85%	50%
Cabbage	Kynetec (2014-2018)	NC	3,000	<500	0%	10%	<2.5%
Cabbage	Kynetec (2014-2018)	TX	6,000	500	0%	40%	10%
Cabbage	Kynetec (2014-2018)	WI	5,000	<500	10%	20%	15%
Cabbage	Kynetec (2014-2018)	AZ	3,000	NR	NR	NR	NR
Cabbage	Kynetec (2014-2018)	CO	2,000	NR	NR	NR	NR
Cauliflower	Kynetec (2014-2018)	AZ	4,000	<500	0%	15%	5%
Cauliflower	Kynetec (2014-2018)	CA	40,000	<500	0%	<2.5%	<1%
Chinese Cabbage (Nappa)	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Chinese Cabbage (Nappa)	**	<i>Other States</i>	**	**	**	**	**
Cilantro	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Cilantro	**	<i>Other States</i>	**	**	**	**	**
Gai Lon	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Gai Lon	**	<i>Other States</i>	**	**	**	**	**
Kale	CDPR (2013-2017)	CA (27 %)	2,000	#	#	#	#
Kale	**	<i>Other States</i>	**	**	**	**	**
Mustard	CDPR (2013-2017)	CA (11 %)	700	#	#	#	#
Mustard	**	<i>Other States</i>	**	**	**	**	**
Rapini	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Rapini	**	<i>Other States</i>	**	**	**	**	**
<i>Other Bassica (Cole) Leafy Vegetables</i>	**	**	**	**	**	**	**
<b>Legume Vegetables (Succulent or Dried) Group</b>	+	+	+	+	+	+	+
Beans (Snap, Bush, Pole, String)	Kynetec (2014-2018)	FL	30,000	10,000	0%	55%	25%
Beans (Snap, Bush, Pole, String)	Kynetec (2014-2018)	IL	10,000	1,000	<1%	15%	10%
Beans (Snap, Bush, Pole, String)	Kynetec (2014-2018)	MI	20,000	3,000	5%	40%	20%
Beans (Snap, Bush, Pole, String)	Kynetec (2014-2018)	NY	30,000	6,000	0%	35%	20%

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Beans (Snap, Bush, Pole, String)	Kynetec (2014-2018)	OR	10,000	5,000	30%	35%	35%
Beans (Snap, Bush, Pole, String)	Kynetec (2014-2018)	PA	9,000	5,000	50%	80%	60%
Beans (Snap, Bush, Pole, String)	Kynetec (2014-2018)	WI	70,000	10,000	20%	25%	20%
Beans (Snap, Bush, Pole, String)	Kynetec (2014-2018)	CA	8,000	NR	NR	NR	NR
Beans (Snap, Bush, Pole, String)	Kynetec (2014-2018)	GA	10,000	NR	NR	NR	NR
Beans (Snap, Bush, Pole, String)	Kynetec (2014-2018)	IN	5,000	NR	NR	NR	NR
Beans (Snap, Bush, Pole, String)	Kynetec (2014-2018)	NC	1,000	NR	NR	NR	NR
Beans (Snap, Bush, Pole, String)	Kynetec (2014-2018)	TN	8,000	NR	NR	NR	NR
Beans (Snap, Bush, Pole, String)	Kynetec (2014-2018)	TX	4,000	NR	NR	NR	NR
Dry Beans/Peas	Kynetec (2014-2018)	CA	50,000	10,000	10%	30%	20%
Dry Beans/Peas	Kynetec (2014-2018)	CO	50,000	8,000	<1%	40%	20%
Dry Beans/Peas	Kynetec (2014-2018)	ID	200,000	100,000	40%	65%	50%
Dry Beans/Peas	Kynetec (2014-2018)	MI	200,000	40,000	20%	35%	25%
Dry Beans/Peas	Kynetec (2014-2018)	MN	200,000	6,000	<1%	10%	5%
Dry Beans/Peas	Kynetec (2014-2018)	MT	800,000	600,000	65%	85%	75%
Dry Beans/Peas	Kynetec (2014-2018)	NE	200,000	50,000	15%	55%	25%
Dry Beans/Peas	Kynetec (2014-2018)	NY	8,000	<500	0%	10%	<2.5%
Dry Beans/Peas	Kynetec (2014-2018)	ND	1,200,000	400,000	35%	45%	40%
Dry Beans/Peas	Kynetec (2014-2018)	TX	30,000	10,000	0%	85%	45%
Dry Beans/Peas	Kynetec (2014-2018)	WA	300,000	200,000	50%	85%	65%
Dry Beans/Peas	Kynetec (2014-2018)	WY	30,000	1,000	0%	15%	5%

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Lima Beans	Kynetec (2014-2018)	CA	6,000	700	0%	50%	20%
Lima Beans	Kynetec (2014-2018)	IL	2,000	700	0%	100%	50%
Lima Beans	Kynetec (2014-2018)	WA	2,000	2,000	65%	100%	90%
Lima Beans	Kynetec (2014-2018)	WI	5,000	<500	0%	35%	15%
Lima Beans	Kynetec (2014-2018)	DE	10,000	NR	NR	NR	NR
Lima Beans	Kynetec (2014-2018)	GA	3,000	NR	NR	NR	NR
Lima Beans	Kynetec (2014-2018)	SC	500	NR	NR	NR	NR
Peas (Fresh/Green/Sweet)	Kynetec (2014-2018)	MN	60,000	<500	0%	<2.5%	<1%
Peas (Fresh/Green/Sweet)	Kynetec (2014-2018)	NY	8,000	2,000	0%	50%	15%
Peas (Fresh/Green/Sweet)	Kynetec (2014-2018)	OR	20,000	8,000	20%	80%	45%
Peas (Fresh/Green/Sweet)	Kynetec (2014-2018)	WA	40,000	20,000	35%	60%	45%
Peas (Fresh/Green/Sweet)	Kynetec (2014-2018)	WI	30,000	3,000	15%	20%	15%
Peas (Fresh/Green/Sweet)	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Soybeans	Kynetec (2014-2018)	AL	500,000	700,000	75%	100%	90%
Soybeans	Kynetec (2014-2018)	AR	3,400,000	4,000,000	60%	80%	70%
Soybeans	Kynetec (2014-2018)	DE	200,000	200,000	90%	100%	100%
Soybeans	Kynetec (2014-2018)	GA	300,000	200,000	55%	85%	70%
Soybeans	Kynetec (2014-2018)	IL	10,300,000	12,300,000	70%	90%	85%
Soybeans	Kynetec (2014-2018)	IN	5,800,000	7,700,000	75%	100%	90%
Soybeans	Kynetec (2014-2018)	IA	9,900,000	12,600,000	75%	95%	90%
Soybeans	Kynetec (2014-2018)	KS	4,300,000	6,300,000	80%	95%	90%
Soybeans	Kynetec (2014-2018)	KY	1,900,000	2,700,000	80%	100%	90%
Soybeans	Kynetec (2014-2018)	LA	1,400,000	3,100,000	95%	100%	100%
Soybeans	Kynetec (2014-2018)	MD	500,000	800,000	85%	100%	95%

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Soybeans	Kynetec (2014-2018)	MI	2,200,000	2,700,000	90%	90%	90%
Soybeans	Kynetec (2014-2018)	MN	7,800,000	8,700,000	75%	95%	85%
Soybeans	Kynetec (2014-2018)	MS	2,200,000	3,100,000	85%	90%	85%
Soybeans	Kynetec (2014-2018)	MO	5,600,000	6,700,000	65%	90%	80%
Soybeans	Kynetec (2014-2018)	NE	5,400,000	7,600,000	85%	100%	95%
Soybeans	Kynetec (2014-2018)	NY	300,000	300,000	70%	100%	90%
Soybeans	Kynetec (2014-2018)	NC	1,700,000	2,300,000	85%	100%	90%
Soybeans	Kynetec (2014-2018)	ND	6,300,000	9,100,000	80%	100%	90%
Soybeans	Kynetec (2014-2018)	OH	4,900,000	6,400,000	85%	95%	90%
Soybeans	Kynetec (2014-2018)	OK	500,000	700,000	90%	100%	95%
Soybeans	Kynetec (2014-2018)	PA	600,000	900,000	85%	100%	95%
Soybeans	Kynetec (2014-2018)	SC	400,000	600,000	80%	100%	90%
Soybeans	Kynetec (2014-2018)	SD	5,200,000	8,100,000	90%	100%	95%
Soybeans	Kynetec (2014-2018)	TN	1,700,000	2,900,000	85%	100%	95%
Soybeans	Kynetec (2014-2018)	TX	200,000	200,000	70%	100%	90%
Soybeans	Kynetec (2014-2018)	VA	600,000	1,000,000	95%	100%	95%
Soybeans	Kynetec (2014-2018)	WI	2,000,000	2,400,000	90%	95%	95%
Soybeans	CDPR (2013-2017)	CA (D %)	(D)	#	#	#	#
<b>Fruiting Vegetables (except Cucurbits)</b>	+	+	+	+	+	+	+
Peppers	Kynetec (2014-2018)	AZ	1,000	600	0%	100%	20%
Peppers	Kynetec (2014-2018)	CA	30,000	7,000	<2.5%	30%	15%
Peppers	Kynetec (2014-2018)	FL	10,000	10,000	10%	80%	40%
Peppers	Kynetec (2014-2018)	GA	3,000	900	0%	75%	15%
Peppers	Kynetec (2014-2018)	NM	8,000	600	0%	25%	10%

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Peppers	Kynetec (2014-2018)	NC	2,000	<500	0%	5%	<1%
Peppers	Kynetec (2014-2018)	TX	3,000	500	0%	100%	20%
Peppers	Kynetec (2014-2018)	NJ	700	NR	NR	NR	NR
Peppers	Kynetec (2014-2018)	OH	3,000	NR	NR	NR	NR
Tomatoes	Kynetec (2014-2018)	CA	300,000	100,000	35%	50%	40%
Tomatoes	Kynetec (2014-2018)	FL	30,000	4,000	0%	25%	10%
Tomatoes	NASS (2014, 2016)	NJ	4,000	(D)	(D)	(D)	(D)
Tomatoes	NASS (2014, 2016)	NC	4,000	(D)	(D)	(D)	(D)
Tomatoes	NASS (2014, 2016)	OH	5,000	(D)	(D)	(D)	(D)
Tomatoes	NASS (2014, 2016)	TN	4,000	(D)	(D)	(D)	(D)
Eggplant	CDPR (2013-2017)	CA (23 %)	1,000	#	#	#	#
Eggplant	**	<i>Other States</i>	**	**	**	**	**
Okra	CDPR (2013-2017)	CA (17 %)	<500	#	#	#	#
Okra	**	<i>Other States</i>	**	**	**	**	**
Tomatillo	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Tomatillo	**	<i>Other States</i>	**	**	**	**	**
<i>Other Fruiting Vegetables</i>	**	**	**	**	**	**	**
<b>Cucurbit Vegetables Group</b>	+	+	+	+	+	+	+
Cantaloupes	Kynetec (2014-2018)	CA	30,000	10,000	15%	50%	25%
Cantaloupes	Kynetec (2014-2018)	FL	3,000	<500	0%	<2.5%	<1%
Cantaloupes	Kynetec (2014-2018)	IN	2,000	1,000	0%	100%	20%
Cantaloupes	Kynetec (2014-2018)	TX	2,000	<500	0%	15%	5%
Cantaloupes	Kynetec (2014-2018)	AZ	20,000	NR	NR	NR	NR
Cantaloupes	Kynetec (2014-2018)	GA	900	NR	NR	NR	NR
Cantaloupes	Kynetec (2014-2018)	NC	<500	NR	NR	NR	NR
Cantaloupes	Kynetec (2014-2018)	SC	1,000	NR	NR	NR	NR

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Cucumbers	Kynetec (2014-2018)	CA	9,000	6,000	25%	85%	55%
Cucumbers	Kynetec (2014-2018)	FL	30,000	30,000	30%	75%	50%
Cucumbers	Kynetec (2014-2018)	GA	9,000	9,000	65%	100%	90%
Cucumbers	Kynetec (2014-2018)	MI	40,000	8,000	5%	60%	25%
Cucumbers	Kynetec (2014-2018)	MO	600	<500	0%	100%	20%
Cucumbers	Kynetec (2014-2018)	NC	10,000	900	0%	30%	10%
Cucumbers	Kynetec (2014-2018)	WI	6,000	<500	0%	25%	10%
Cucumbers	Kynetec (2014-2018)	DE	5,000	NR	NR	NR	NR
Cucumbers	Kynetec (2014-2018)	MD	3,000	NR	NR	NR	NR
Cucumbers	Kynetec (2014-2018)	NJ	3,000	NR	NR	NR	NR
Cucumbers	Kynetec (2014-2018)	SC	800	NR	NR	NR	NR
Cucumbers	Kynetec (2014-2018)	TX	6,000	NR	NR	NR	NR
Cucumbers	Kynetec (2014-2018)	WA	2,000	NR	NR	NR	NR
Cucumbers	NASS (2014, 2016)	OH	2,000	(D)	(D)	(D)	(D)
Cucumbers	NASS (2014, 2016)	NY	2,000	(D)	(D)	(D)	(D)
Cucumbers	NASS (2014, 2016)	WI	6,000	(D)	(D)	(D)	(D)
Melons, Honeydew	(NASS 2014, 2016, 2018)	CA	9,000	3,000	(D)	5%	(D)
Melons, Honeydew	NASS (2014, 2016)	AZ	<500	NR	NR	NR	NR
Pumpkins	Kynetec (2014-2018)	CA	6,000	1,000	<1%	30%	20%
Pumpkins	Kynetec (2014-2018)	CT	1,000	700	0%	100%	45%
Pumpkins	Kynetec (2014-2018)	IL	20,000	3,000	0%	30%	10%
Pumpkins	Kynetec (2014-2018)	IN	5,000	600	0%	30%	15%
Pumpkins	Kynetec (2014-2018)	MD	900	<500	0%	70%	15%
Pumpkins	Kynetec (2014-2018)	MA	2,000	800	0%	100%	40%

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Pumpkins	Kynetec (2014-2018)	MI	5,000	3,000	15%	70%	45%
Pumpkins	Kynetec (2014-2018)	MN	2,000	<500	0%	<2.5%	<1%
Pumpkins	Kynetec (2014-2018)	MO	1,000	<500	<2.5%	75%	30%
Pumpkins	Kynetec (2014-2018)	NJ	2,000	<500	0%	75%	25%
Pumpkins	Kynetec (2014-2018)	NY	5,000	2,000	<2.5%	80%	30%
Pumpkins	Kynetec (2014-2018)	NC	3,000	<500	0%	<2.5%	<1%
Pumpkins	Kynetec (2014-2018)	OH	7,000	<500	5%	15%	10%
Pumpkins	Kynetec (2014-2018)	OR	2,000	800	0%	70%	25%
Pumpkins	Kynetec (2014-2018)	PA	5,000	4,000	35%	85%	55%
Pumpkins	Kynetec (2014-2018)	TN	2,000	<500	0%	35%	10%
Pumpkins	Kynetec (2014-2018)	VA	2,000	2,000	15%	100%	60%
Pumpkins	Kynetec (2014-2018)	WA	2,000	1,000	0%	95%	25%
Pumpkins	Kynetec (2014-2018)	WI	2,000	<500	0%	40%	15%
Pumpkins	Kynetec (2014-2018)	CO	2,000	NR	NR	NR	NR
Pumpkins	Kynetec (2014-2018)	NM	2,000	NR	NR	NR	NR
Pumpkins	Kynetec (2014-2018)	TX	<500	NR	NR	NR	NR
Squash	Kynetec (2014-2018)	CA	6,000	1,000	0%	45%	25%
Squash	Kynetec (2014-2018)	CT	800	<500	20%	45%	35%
Squash	Kynetec (2014-2018)	FL	6,000	3,000	0%	80%	35%
Squash	Kynetec (2014-2018)	GA	3,000	2,000	10%	85%	60%
Squash	Kynetec (2014-2018)	MA	2,000	800	0%	100%	50%
Squash	Kynetec (2014-2018)	MI	6,000	1,000	0%	45%	25%
Squash	Kynetec (2014-2018)	NJ	3,000	<500	0%	15%	<2.5%
Squash	Kynetec (2014-2018)	NY	4,000	4,000	10%	95%	70%



Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Squash	Kynetec (2014-2018)	NC	3,000	<500	0%	15%	10%
Squash	Kynetec (2014-2018)	OH	2,000	<500	0%	15%	5%
Squash	Kynetec (2014-2018)	OR	3,000	<500	0%	75%	15%
Squash	Kynetec (2014-2018)	PA	900	<500	0%	85%	20%
Squash	Kynetec (2014-2018)	SC	1,000	<500	0%	40%	10%
Squash	Kynetec (2014-2018)	TX	2,000	<500	0%	10%	<2.5%
Squash	Kynetec (2014-2018)	WI	1,000	<500	0%	45%	20%
Squash	Kynetec (2014-2018)	TN	500	NR	NR	NR	NR
Watermelons	Kynetec (2014-2018)	AL	3,000	500	0%	75%	20%
Watermelons	Kynetec (2014-2018)	CA	10,000	6,000	15%	70%	45%
Watermelons	Kynetec (2014-2018)	FL	20,000	2,000	0%	25%	5%
Watermelons	Kynetec (2014-2018)	GA	20,000	2,000	0%	50%	15%
Watermelons	Kynetec (2014-2018)	IN	7,000	<500	0%	10%	5%
Watermelons	Kynetec (2014-2018)	MS	2,000	<500	0%	20%	5%
Watermelons	Kynetec (2014-2018)	MO	3,000	900	0%	100%	20%
Watermelons	Kynetec (2014-2018)	NC	6,000	4,000	15%	70%	30%
Watermelons	Kynetec (2014-2018)	OK	5,000	600	0%	85%	20%
Watermelons	Kynetec (2014-2018)	SC	8,000	800	0%	35%	10%
Watermelons	Kynetec (2014-2018)	TX	30,000	4,000	0%	60%	15%
Watermelons	Kynetec (2014-2018)	AZ	600	<500	0%	3420%	685%
Watermelons	Kynetec (2014-2018)	MD	3,000	NR	NR	NR	NR
Bitter Melon	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Bitter Melon	**	Other States	**	**	**	**	**

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Chayote	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Chayote	**	<i>Other States</i>	**	**	**	**	**
<i>Other Cucurbit Vegetables</i>	**	**	**	**	**	**	**
<b>Citrus Fruits</b>	+	+	+	+	+	+	+
Grapefruit	Kynetec (2014-2018)	FL	40,000	200,000	90%	100%	95%
Grapefruit	Kynetec (2014-2018)	TX	20,000	20,000	0%	100%	40%
Grapefruit	NASS (2015)	CA	10,000	20,000	50%	50%	50%
Lemons	Kynetec (2014-2018)	AZ	9,000	9,000	0%	100%	35%
Lemons	Kynetec (2014-2018)	CA	50,000	100,000	60%	90%	75%
Oranges	Kynetec (2014-2018)	CA	200,000	400,000	65%	95%	75%
Oranges	Kynetec (2014-2018)	FL	400,000	1,700,000	85%	100%	95%
Tangelos, Bearing	NASS (2015)	FL	4,000	6,000	55%	55%	55%
Tangerines, Bearing	NASS (2015)	CA	30,000	80,000	85%	85%	85%
Tangerines, Bearing	NASS (2015)	FL	8,000	40,000	65%	65%	65%
Kumquat	CDPR (2013-2017)	CA (71 %)	<500	#	#	#	#
Kumquat	**	<i>Other States</i>	**	**	**	**	**
Lime	CDPR (2013-2017)	CA (56 %)	<500	#	#	#	#
Lime	**	<i>Other States</i>	**	**	**	**	**
Pomelo	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Pomelo	**	<i>Other States</i>	**	**	**	**	**
Tangelo	CDPR (2013-2017)	CA (42 %)	4,000	#	#	#	#
Tangelo	**	<i>Other States</i>	**	**	**	**	**
Tangerine	CDPR (2013-2017)	CA (79 %)	30,000	#	#	#	#
Tangerine	**	<i>Other States</i>	**	**	**	**	**
<i>Other Citrus Fruits</i>	**	**	**	**	**	**	**

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
<b>Pome Fruits</b>	+	+	+	+	+	+	+
Apples	Kynetec (2014-2018)	CA	20,000	8,000	15%	50%	35%
Apples	Kynetec (2014-2018)	MI	40,000	20,000	30%	70%	50%
Apples	Kynetec (2014-2018)	NY	50,000	20,000	60%	85%	70%
Apples	Kynetec (2014-2018)	NC	6,000	2,000	0%	100%	35%
Apples	Kynetec (2014-2018)	OH	5,000	700	0%	40%	15%
Apples	Kynetec (2014-2018)	OR	6,000	700	0%	100%	25%
Apples	Kynetec (2014-2018)	PA	20,000	8,000	30%	75%	45%
Apples	Kynetec (2014-2018)	VA	10,000	7,000	30%	90%	70%
Apples	Kynetec (2014-2018)	WA	200,000	100,000	35%	75%	55%
Apples	Kynetec (2014-2018)	WV	800	NR	NR	NR	NR
Pears	Kynetec (2014-2018)	CA	10,000	20,000	70%	95%	90%
Pears	Kynetec (2014-2018)	OR	20,000	10,000	65%	90%	80%
Pears	Kynetec (2014-2018)	WA	20,000	10,000	55%	85%	70%
Quince	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Quince	**	<i>Other States</i>	**	**	**	**	**
<i>Other Pome Fruits</i>	**	**	**	**	**	**	**
<b>12: Stone Fruits Group</b>	+	+	+	+	+	+	+
Apricots	Kynetec (2014-2018)	CA	10,000	9,000	50%	75%	60%
Cherries	Kynetec (2014-2018)	CA	40,000	50,000	60%	85%	80%
Cherries	Kynetec (2014-2018)	MI	40,000	40,000	85%	90%	85%
Cherries	Kynetec (2014-2018)	OR	20,000	6,000	0%	95%	40%
Cherries	Kynetec (2014-2018)	WA	40,000	40,000	55%	80%	70%
Cherries	NASS (2015)	NY	3,000	(D)	(D)	(D)	(D)
Nectarines	CDPR (2013-2017)	CA (87%)	20,000	#	#	#	#
Peaches	Kynetec (2014-2018)	AL	2,000	<500	0%	5%	<1%

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Peaches	Kynetec (2014-2018)	CA	50,000	70,000	70%	85%	80%
Peaches	Kynetec (2014-2018)	CO	3,000	<500	0%	65%	15%
Peaches	Kynetec (2014-2018)	GA	10,000	2,000	0%	90%	20%
Peaches	Kynetec (2014-2018)	MI	3,000	<500	10%	25%	20%
Peaches	Kynetec (2014-2018)	NJ	5,000	800	0%	100%	45%
Peaches	Kynetec (2014-2018)	NY	2,000	<500	0%	<2.5%	<1%
Peaches	Kynetec (2014-2018)	PA	5,000	700	0%	35%	15%
Peaches	Kynetec (2014-2018)	SC	20,000	3,000	0%	50%	25%
Peaches	Kynetec (2014-2018)	TX	5,000	4,000	20%	100%	55%
Peaches	Kynetec (2014-2018)	WA	3,000	1,000	0%	100%	40%
Peaches	Kynetec (2014-2018)	IL	<500	NR	NR	NR	NR
Plums/Prunes	Kynetec (2014-2018)	CA	70,000	100,000	75%	90%	80%
Plumcots, Pluot, and Other Plum-Apricot	CDPR (2013-2017)	CA (97 %)	3,000	#	#	#	#
<i>Other Stone Fruits</i>	**	**	**	**	**	**	**
<b>13-07: Berry and Small Fruit</b>	+	+	+	+	+	+	+
Caneberries	Kynetec (2014-2018)	CA	10,000	1,000	0%	20%	10%
Caneberries	Kynetec (2014-2018)	OR	10,000	1,000	0%	25%	10%
Caneberries	Kynetec (2014-2018)	WA	2,000	NR	NR	NR	NR
Blueberry	NASS (2015)	GA	10,000	10,000	30%	30%	30%
Blueberry	NASS (2015)	MI	20,000	1,000	10%	10%	10%
Blueberry	NASS (2015)	NJ	10,000	(D)	(D)	(D)	(D)
Blueberry	NASS (2015)	NC	7,000	(D)	(D)	(D)	(D)
Blueberry	NASS (2015)	OR	9,000	3,000	20%	20%	20%
Blueberry	NASS (2015)	WA	9,000	(D)	(D)	(D)	(D)
Blueberry	CDPR (2013-2017)	CA (5 %)	4,000	8,000	25%	45%	35%

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Grapes, Raisin	Kynetec (2014-2018)	CA	200,000	300,000	70%	80%	75%
Grapes, Table	Kynetec (2014-2018)	CA	100,000	300,000	75%	90%	85%
Grapes, Table	Kynetec (2014-2018)	NY	4,000	1,000	0%	100%	20%
Grapes, Wine	Kynetec (2014-2018)	CA	600,000	1,000,000	55%	85%	70%
Grapes, Wine	Kynetec (2014-2018)	NY	40,000	8,000	0%	90%	20%
Grapes, Wine	Kynetec (2014-2018)	WA	80,000	90,000	0%	85%	55%
Kiwifruit	CDPR (2013-2017)	CA (98 %)	4,000	10,000	35%	100%	75%
Strawberries	Kynetec (2014-2018)	CA	40,000	<500	0%	5%	<1%
Strawberries	Kynetec (2014-2018)	FL	10,000	20,000	10%	95%	70%
Strawberries	Kynetec (2014-2018)	MI	900	<500	0%	15%	<2.5%
Strawberries	Kynetec (2014-2018)	NY	1,000	<500	0%	10%	<2.5%
Strawberries	Kynetec (2014-2018)	OR	2,000	<500	0%	35%	10%
Strawberries	Kynetec (2014-2018)	PA	800	<500	0%	10%	<2.5%
Strawberries	Kynetec (2014-2018)	WA	1,000	NR	NR	NR	NR
<i>Other berries and small fruit</i>	**	**	**	**	**	**	**
<b>Tree Nut Group</b>	+	+	+	+	+	+	+
Almonds	Kynetec (2014-2018)	CA	1,000,000	2,100,000	75%	90%	85%
Hazelnuts	Kynetec (2014-2018)	OR	40,000	20,000	25%	60%	35%
Pecans	Kynetec (2014-2018)	AL	20,000	<500	0%	10%	<2.5%
Pecans	Kynetec (2014-2018)	AZ	20,000	30,000	0%	90%	35%
Pecans	Kynetec (2014-2018)	GA	100,000	100,000	35%	75%	65%
Pecans	Kynetec (2014-2018)	LA	20,000	2,000	0%	45%	10%
Pecans	Kynetec (2014-2018)	NM	40,000	80,000	60%	85%	75%
Pecans	Kynetec (2014-2018)	OK	100,000	5,000	5%	10%	10%

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Pecans	Kynetec (2014-2018)	TX	200,000	90,000	10%	35%	25%
Pecan	CDPR (2013-2017)	CA (0.6 %)	3,000	#	#	#	#
Pecan	**	<i>Other States</i>	**	**	**	**	**
Pistachios	Kynetec (2014-2018)	CA	300,000	600,000	75%	90%	80%
Walnuts	Kynetec (2014-2018)	CA	400,000	600,000	70%	90%	80%
Chestnut	CDPR (2013-2017)	CA (13 %)	500	#	#	#	#
Chestnut	**	<i>Other States</i>	**	**	**	**	**
<i>Other Tree Nuts</i>	**	**	**	**	**	**	**
<b>Cereal Grains</b>	+	+	+	+	+	+	+
Barley	Kynetec (2014-2018)	CA	80,000	7,000	5%	45%	15%
Barley	Kynetec (2014-2018)	CO	60,000	1,000	0%	10%	<2.5%
Barley	Kynetec (2014-2018)	ID	600,000	70,000	10%	20%	15%
Barley	Kynetec (2014-2018)	MN	90,000	<500	0%	<2.5%	<1%
Barley	Kynetec (2014-2018)	MT	900,000	500,000	50%	70%	60%
Barley	Kynetec (2014-2018)	ND	600,000	200,000	20%	45%	30%
Barley	Kynetec (2014-2018)	OR	50,000	10,000	15%	50%	30%
Barley	Kynetec (2014-2018)	PA	60,000	5,000	5%	20%	10%
Barley	Kynetec (2014-2018)	SD	30,000	1,000	0%	25%	5%
Barley	Kynetec (2014-2018)	UT	30,000	4,000	5%	20%	10%
Barley	Kynetec (2014-2018)	VA	40,000	10,000	10%	55%	25%
Barley	Kynetec (2014-2018)	WA	100,000	50,000	30%	60%	45%
Barley	Kynetec (2014-2018)	WY	80,000	2,000	<1%	5%	<2.5%

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Corn	Kynetec (2014-2018)	AL	300,000	500,000	85%	100%	95%
Corn	Kynetec (2014-2018)	AR	600,000	900,000	85%	100%	90%
Corn	Kynetec (2014-2018)	CA	500,000	500,000	60%	95%	80%
Corn	Kynetec (2014-2018)	CO	1,300,000	1,700,000	95%	100%	100%
Corn	Kynetec (2014-2018)	DE	200,000	200,000	85%	100%	100%
Corn	Kynetec (2014-2018)	GA	400,000	400,000	75%	95%	85%
Corn	Kynetec (2014-2018)	ID	300,000	400,000	90%	100%	95%
Corn	Kynetec (2014-2018)	IL	11,500,000	10,200,000	75%	80%	75%
Corn	Kynetec (2014-2018)	IN	5,600,000	5,100,000	70%	80%	75%
Corn	Kynetec (2014-2018)	IA	13,600,000	11,400,000	70%	80%	75%
Corn	Kynetec (2014-2018)	KS	4,700,000	6,100,000	85%	90%	90%
Corn	Kynetec (2014-2018)	KY	1,400,000	2,000,000	90%	95%	95%
Corn	Kynetec (2014-2018)	LA	500,000	800,000	80%	100%	95%
Corn	Kynetec (2014-2018)	MD	500,000	600,000	75%	90%	85%
Corn	Kynetec (2014-2018)	MI	2,500,000	2,000,000	65%	80%	70%
Corn	Kynetec (2014-2018)	MN	8,200,000	6,700,000	70%	85%	80%
Corn	Kynetec (2014-2018)	MS	600,000	700,000	65%	100%	85%
Corn	Kynetec (2014-2018)	MO	3,400,000	3,100,000	65%	70%	70%
Corn	Kynetec (2014-2018)	NE	9,600,000	11,200,000	80%	90%	85%
Corn	Kynetec (2014-2018)	NM	100,000	100,000	0%	100%	80%
Corn	Kynetec (2014-2018)	NY	1,100,000	800,000	55%	80%	70%
Corn	Kynetec (2014-2018)	NC	900,000	1,200,000	85%	100%	90%
Corn	Kynetec (2014-2018)	ND	3,300,000	3,900,000	90%	95%	95%
Corn	Kynetec (2014-2018)	OH	3,600,000	2,400,000	50%	70%	60%

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Corn	Kynetec (2014-2018)	OK	300,000	400,000	35%	95%	80%
Corn	Kynetec (2014-2018)	PA	1,400,000	1,400,000	65%	80%	75%
Corn	Kynetec (2014-2018)	SC	300,000	400,000	65%	100%	90%
Corn	Kynetec (2014-2018)	SD	5,400,000	6,700,000	80%	95%	90%
Corn	Kynetec (2014-2018)	TN	900,000	1,400,000	85%	100%	95%
Corn	Kynetec (2014-2018)	TX	2,400,000	2,900,000	75%	95%	85%
Corn	Kynetec (2014-2018)	VA	500,000	700,000	90%	95%	90%
Corn	Kynetec (2014-2018)	WA	200,000	100,000	40%	95%	75%
Corn	Kynetec (2014-2018)	WI	4,100,000	3,400,000	70%	75%	75%
Corn	Kynetec (2014-2018)	WY	90,000	100,000	95%	100%	100%
Sweet Corn	Kynetec (2014-2018)	CA	30,000	10,000	15%	60%	30%
Sweet Corn	Kynetec (2014-2018)	FL	40,000	20,000	0%	85%	30%
Sweet Corn	Kynetec (2014-2018)	GA	30,000	7,000	0%	75%	25%
Sweet Corn	Kynetec (2014-2018)	IL	20,000	1,000	0%	15%	10%
Sweet Corn	Kynetec (2014-2018)	MI	10,000	1,000	0%	35%	15%
Sweet Corn	Kynetec (2014-2018)	MN	100,000	4,000	5%	5%	5%
Sweet Corn	Kynetec (2014-2018)	NJ	7,000	<500	0%	<2.5%	<1%
Sweet Corn	Kynetec (2014-2018)	NY	30,000	10,000	<1%	90%	40%
Sweet Corn	Kynetec (2014-2018)	OH	10,000	700	0%	20%	5%
Sweet Corn	Kynetec (2014-2018)	OR	20,000	10,000	20%	55%	40%
Sweet Corn	Kynetec (2014-2018)	PA	10,000	2,000	0%	60%	20%
Sweet Corn	Kynetec (2014-2018)	WA	90,000	50,000	40%	80%	60%
Sweet Corn	Kynetec (2014-2018)	WI	60,000	20,000	20%	45%	30%
Sweet Corn	NASS (2014, 2016)	NC	5,000	500	55%	55%	55%



Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Sweet Corn	NASS (2014, 2016)	CO	5,000	(D)	(D)	(D)	(D)
Sweet Corn	NASS (2014, 2016)	IN	6,000	(D)	(D)	(D)	(D)
Sweet Corn	NASS (2014, 2016)	TX	5,000	(D)	(D)	(D)	(D)
Oats	NASS (2015)	KS	30,000	(D)	(D)	(D)	(D)
Oats	NASS (2015)	MI	40,000	10,000	15%	15%	15%
Oats	NASS (2015)	MN	100,000	(D)	(D)	(D)	(D)
Oats	NASS (2015)	NY	50,000	9,000	15%	15%	15%
Oats	NASS (2015)	ND	100,000	100,000	55%	55%	55%
Oats	NASS (2015)	OH	50,000	3,000	10%	10%	10%
Oats	NASS (2015)	PA	70,000	20,000	20%	20%	20%
Oats	NASS (2015)	SD	70,000	9,000	5%	5%	5%
Oats	NASS (2015)	TX	70,000	(D)	(D)	(D)	(D)
Oats	NASS (2015)	WI	100,000	(D)	(D)	(D)	(D)
Oats	NASS (2015)	IA	60,000	NR	NR	NR	NR
Oats	NASS (2015)	IL	20,000	NR	NR	NR	NR
Oats	NASS (2015)	NE	20,000	NR	NR	NR	NR
Oats	CDPR (2013-2017)	CA (2 %)	30,000	#	#	#	#
Rice	Kynetec (2014-2018)	AR	1,500,000	900,000	45%	70%	55%
Rice	Kynetec (2014-2018)	CA	500,000	2,000	0%	<2.5%	<1%
Rice	Kynetec (2014-2018)	LA	400,000	400,000	60%	80%	70%
Rice	Kynetec (2014-2018)	MS	200,000	100,000	45%	75%	60%
Rice	Kynetec (2014-2018)	MO	200,000	200,000	55%	75%	65%
Rice	Kynetec (2014-2018)	TX	200,000	90,000	35%	70%	55%
Rice, Wild	CDPR (2013-2017)	CA (25 %)	10,000	#	#	#	#
Rice, Wild	**	<i>Other States</i>	**	**	**	**	**
Sorghum (Milo)	Kynetec (2014-2018)	AR	200,000	70,000	15%	50%	30%
Sorghum (Milo)	Kynetec (2014-2018)	CO	400,000	300,000	30%	95%	55%
Sorghum (Milo)	Kynetec (2014-2018)	GA	30,000	9,000	10%	65%	35%
Sorghum (Milo)	Kynetec (2014-2018)	IL	30,000	3,000	<1%	45%	15%

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Sorghum (Milo)	Kynetec (2014-2018)	KS	3,000,000	3,000,000	65%	75%	70%
Sorghum (Milo)	Kynetec (2014-2018)	LA	50,000	50,000	30%	100%	80%
Sorghum (Milo)	Kynetec (2014-2018)	MO	80,000	40,000	20%	70%	45%
Sorghum (Milo)	Kynetec (2014-2018)	NE	200,000	100,000	35%	95%	60%
Sorghum (Milo)	Kynetec (2014-2018)	NM	100,000	30,000	0%	65%	25%
Sorghum (Milo)	Kynetec (2014-2018)	OK	400,000	300,000	55%	70%	65%
Sorghum (Milo)	Kynetec (2014-2018)	SD	300,000	200,000	45%	95%	75%
Sorghum (Milo)	Kynetec (2014-2018)	TX	2,200,000	1,100,000	25%	55%	45%
Sorghum (Milo)	CDPR (2013-2017)	CA (0.3 %)	10,000	#	#	#	#
Sorghum (Milo)	**	<i>Other States</i>	**	**	**	**	**
Wheat, Spring	Kynetec (2014-2018)	CA	50,000	3,000	0%	20%	10%
Wheat, Spring	Kynetec (2014-2018)	ID	500,000	70,000	15%	25%	20%
Wheat, Spring	Kynetec (2014-2018)	MN	1,400,000	20,000	<1%	5%	<2.5%
Wheat, Spring	Kynetec (2014-2018)	MT	3,300,000	1,900,000	50%	80%	65%
Wheat, Spring	Kynetec (2014-2018)	ND	7,200,000	2,800,000	40%	50%	45%
Wheat, Spring	Kynetec (2014-2018)	OR	90,000	30,000	20%	65%	45%
Wheat, Spring	Kynetec (2014-2018)	SD	1,200,000	200,000	5%	30%	20%
Wheat, Spring	Kynetec (2014-2018)	WA	600,000	200,000	25%	65%	45%
Wheat, Spring	Kynetec (2014-2018)	AZ	90,000	NR	NR	NR	NR
Wheat, Winter	Kynetec (2014-2018)	AR	300,000	20,000	<2.5%	20%	10%
Wheat, Winter	Kynetec (2014-2018)	CA	400,000	30,000	0%	45%	10%
Wheat, Winter	Kynetec (2014-2018)	CO	2,400,000	700,000	20%	50%	35%
Wheat, Winter	Kynetec (2014-2018)	GA	200,000	60,000	20%	40%	25%
Wheat, Winter	Kynetec (2014-2018)	ID	700,000	100,000	5%	30%	20%

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Wheat, Winter	Kynetec (2014-2018)	IL	600,000	60,000	<1%	20%	10%
Wheat, Winter	Kynetec (2014-2018)	IN	300,000	40,000	<2.5%	20%	15%
Wheat, Winter	Kynetec (2014-2018)	KS	8,500,000	1,400,000	15%	25%	20%
Wheat, Winter	Kynetec (2014-2018)	KY	500,000	100,000	15%	35%	25%
Wheat, Winter	Kynetec (2014-2018)	MI	500,000	30,000	<2.5%	10%	5%
Wheat, Winter	Kynetec (2014-2018)	MO	800,000	50,000	5%	10%	10%
Wheat, Winter	Kynetec (2014-2018)	MT	2,100,000	800,000	45%	70%	55%
Wheat, Winter	Kynetec (2014-2018)	NE	1,300,000	100,000	5%	20%	15%
Wheat, Winter	Kynetec (2014-2018)	NM	400,000	100,000	0%	95%	35%
Wheat, Winter	Kynetec (2014-2018)	NC	600,000	100,000	15%	30%	20%
Wheat, Winter	Kynetec (2014-2018)	ND	400,000	50,000	0%	45%	25%
Wheat, Winter	Kynetec (2014-2018)	OH	500,000	30,000	<2.5%	20%	10%
Wheat, Winter	Kynetec (2014-2018)	OK	4,900,000	1,200,000	15%	30%	25%
Wheat, Winter	Kynetec (2014-2018)	OR	700,000	100,000	5%	40%	20%
Wheat, Winter	Kynetec (2014-2018)	SD	1,100,000	300,000	20%	40%	30%
Wheat, Winter	Kynetec (2014-2018)	TN	400,000	200,000	15%	60%	45%
Wheat, Winter	Kynetec (2014-2018)	TX	5,200,000	1,200,000	15%	30%	25%
Wheat, Winter	Kynetec (2014-2018)	VA	200,000	60,000	10%	55%	30%
Wheat, Winter	Kynetec (2014-2018)	WA	1,700,000	100,000	10%	15%	10%
Wheat, Winter	Kynetec (2014-2018)	WI	300,000	30,000	<2.5%	20%	15%
Triticale	CDPR (2013-2017)	CA (24 %)	10,000	#	#	#	#
Triticale	**	<i>Other States</i>	**	**	**	**	**
Rye	CDPR (2013-2017)	CA (1 %)	2,000	#	#	#	#
Rye	**	<i>Other States</i>	**	**	**	**	**
<i>Other Cereal Grains</i>	**	**	**	**	**	**	**

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
<b>Grass Forage, Fodder and Hay Group</b>	+	+	+	+	+	+	<b>Full Crop Group Not Registered</b>
Pastureland	Kynetec (2014-2018)	AL	2,400,000	50,000	<1%	5%	<2.5%
Pastureland	Kynetec (2014-2018)	AR	3,300,000	20,000	<1%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	CA	1,100,000	1,000	<1%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	CO	1,000,000	2,000	<1%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	FL	3,600,000	200,000	<2.5%	15%	5%
Pastureland	Kynetec (2014-2018)	GA	1,500,000	8,000	<1%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	ID	1,300,000	2,000	0%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	IL	1,000,000	1,000	0%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	IN	600,000	2,000	0%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	IA	2,100,000	6,000	0%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	KS	2,500,000	<500	0%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	KY	3,500,000	30,000	<1%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	LA	2,000,000	20,000	<1%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	MD	200,000	<500	0%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	MI	500,000	800	0%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	MN	1,400,000	1,000	0%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	MS	1,900,000	10,000	0%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	MO	7,600,000	60,000	<1%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	MT	4,000,000	4,000	0%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	NE	1,800,000	2,000	0%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	NY	800,000	4,000	0%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	NC	1,100,000	60,000	<1%	10%	5%

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Pastureland	Kynetec (2014-2018)	ND	1,200,000	<500	<1%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	OH	1,200,000	<500	0%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	OK	8,400,000	80,000	<1%	5%	<1%
Pastureland	Kynetec (2014-2018)	OR	1,700,000	5,000	<1%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	PA	900,000	1,000	0%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	SC	700,000	10,000	0%	5%	<2.5%
Pastureland	Kynetec (2014-2018)	SD	2,100,000	1,000	0%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	TN	3,300,000	10,000	<1%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	TX	16,300,000	100,000	<1%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	UT	700,000	700	0%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	VA	2,600,000	20,000	<1%	5%	<2.5%
Pastureland	Kynetec (2014-2018)	WA	900,000	3,000	0%	5%	<1%
Pastureland	Kynetec (2014-2018)	WV	1,200,000	2,000	<1%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	WI	1,200,000	1,000	0%	<2.5%	<1%
Pastureland	Kynetec (2014-2018)	WY	600,000	<500	0%	<2.5%	<1%
Forage Hay/Silage	CDPR (2013-2017)	CA (--%)	(D)	#	#	#	#
Forage Hay/Silage	**	Other States	**	**	**	**	**
Bermudagrass	CDPR (2013-2017)	CA (--%)	(D)	#	#	#	#
Bermudagrass	**	Other States	**	**	**	**	**
Grass, Seed	CDPR (2013-2017)	CA (--%)	(D)	#	#	#	#
Grass, Seed	**	Other States	**	**	**	**	**
Orchardgrass	CDPR (2013-2017)	CA (--%)	(D)	#	#	#	#
Orchardgrass	**	Other States	**	**	**	**	**
Sudangrass	CDPR (2013-2017)	CA (--%)	(D)	#	#	#	#
Sudangrass	**	Other States	**	**	**	**	**

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Ryegrass	CDPR (2013-2017)	CA (--%)	(D)	#	#	#	#
Ryegrass	**	<i>Other States</i>	**	**	**	**	**
Timothy	CDPR (2013-2017)	CA (--%)	(D)	#	#	#	#
Timothy	**	<i>Other States</i>	**	**	**	**	**
<i>Other Grass Forage, Fodder and Hay</i>	**	**	**	**	**	**	**
<b>Nongrass Animal Feeds (Forage, Fodder, Straw, and Hay)</b>	+	+	+	+	+	+	+
Alfalfa	Kynetec (2014-2018)	AZ	300,000	30,000	0%	30%	10%
Alfalfa	Kynetec (2014-2018)	CA	800,000	400,000	20%	45%	30%
Alfalfa	Kynetec (2014-2018)	CO	700,000	70,000	10%	15%	10%
Alfalfa	Kynetec (2014-2018)	ID	1,100,000	200,000	10%	20%	15%
Alfalfa	Kynetec (2014-2018)	IL	300,000	10,000	<2.5%	10%	5%
Alfalfa	Kynetec (2014-2018)	IN	200,000	20,000	0%	15%	5%
Alfalfa	Kynetec (2014-2018)	IA	800,000	10,000	<1%	5%	<2.5%
Alfalfa	Kynetec (2014-2018)	KS	600,000	90,000	10%	20%	15%
Alfalfa	Kynetec (2014-2018)	KY	200,000	10,000	<1%	15%	10%
Alfalfa	Kynetec (2014-2018)	MI	600,000	40,000	<1%	15%	10%
Alfalfa	Kynetec (2014-2018)	MN	1,000,000	30,000	<2.5%	5%	<2.5%
Alfalfa	Kynetec (2014-2018)	MO	300,000	30,000	5%	25%	15%
Alfalfa	Kynetec (2014-2018)	MT	1,800,000	100,000	5%	15%	10%
Alfalfa	Kynetec (2014-2018)	NE	800,000	60,000	5%	15%	10%
Alfalfa	Kynetec (2014-2018)	NV	200,000	6,000	0%	10%	5%
Alfalfa	Kynetec (2014-2018)	NM	200,000	20,000	0%	20%	5%
Alfalfa	Kynetec (2014-2018)	NY	300,000	6,000	<1%	5%	<2.5%
Alfalfa	Kynetec (2014-2018)	ND	1,500,000	70,000	<1%	5%	5%

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Alfalfa	Kynetec (2014-2018)	OH	300,000	10,000	<2.5%	10%	5%
Alfalfa	Kynetec (2014-2018)	OK	300,000	200,000	20%	80%	45%
Alfalfa	Kynetec (2014-2018)	OR	400,000	70,000	<2.5%	45%	15%
Alfalfa	Kynetec (2014-2018)	PA	400,000	20,000	5%	10%	5%
Alfalfa	Kynetec (2014-2018)	SD	1,800,000	80,000	<1%	10%	5%
Alfalfa	Kynetec (2014-2018)	TX	100,000	30,000	<1%	20%	10%
Alfalfa	Kynetec (2014-2018)	UT	500,000	100,000	10%	35%	20%
Alfalfa	Kynetec (2014-2018)	VA	70,000	20,000	10%	55%	30%
Alfalfa	Kynetec (2014-2018)	WA	400,000	90,000	5%	50%	15%
Alfalfa	Kynetec (2014-2018)	WI	1,100,000	30,000	<2.5%	10%	5%
Alfalfa	Kynetec (2014-2018)	WY	500,000	20,000	<1%	5%	5%
Clover	CDPR (2013-2017)	CA (D %)	(D)	#	#	#	#
Clover	**	<i>Other States</i>	**	**	**	**	**
Vetch	CDPR (2013-2017)	CA (D %)	(D)	#	#	#	#
Vetch	**	<i>Other States</i>	**	**	**	**	**
<i>Other Nongrass Animal Feeds (Forage, Fodder, Straw, and Hay)</i>	**	**	**	**	**	**	**
<b>Herbs and Spices Group</b>	+	+	+	+	+	+	+
Basil, Sweet	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Basil, Sweet	**	<i>Other States</i>	**	**	**	**	**
Mint	CDPR (2013-2017)	CA (3 %)	3,000	#	#	#	#
Mint	**	<i>Other States</i>	**	**	**	**	**
Parsley	CDPR (2013-2017)	CA (48 %)	2,000	#	#	#	#
Parsley	**	<i>Other States</i>	**	**	**	**	**
Pepper, Spice	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Pepper, Spice	**	<i>Other States</i>	**	**	**	**	**
Rosemary	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Rosemary	**	<i>Other States</i>	**	**	**	**	**

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Sage	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Sage	**	<i>Other States</i>	**	**	**	**	**
<b>Oilseed Group</b>	+	+	+	+	+	+	+
Canola (oilseed rape)	Kynetec (2014-2018)	MN	10,000	<500	0%	35%	10%
Canola (oilseed rape)	Kynetec (2014-2018)	MT	90,000	40,000	0%	75%	35%
Canola (oilseed rape)	Kynetec (2014-2018)	ND	1,400,000	700,000	50%	60%	50%
Canola (oilseed rape)	Kynetec (2014-2018)	OK	100,000	200,000	75%	100%	90%
Canola (oilseed rape)	CDPR (2013-2017)	CA (D %)	(D)	#	#	#	#
Sunflowers	Kynetec (2014-2018)	CO	70,000	60,000	60%	95%	70%
Sunflowers	Kynetec (2014-2018)	KS	60,000	50,000	40%	85%	60%
Sunflowers	Kynetec (2014-2018)	MN	70,000	10,000	<2.5%	35%	20%
Sunflowers	Kynetec (2014-2018)	NE	40,000	30,000	55%	95%	85%
Sunflowers	Kynetec (2014-2018)	ND	600,000	500,000	65%	85%	75%
Sunflowers	Kynetec (2014-2018)	SD	600,000	600,000	80%	95%	90%
Sunflowers	Kynetec (2014-2018)	TX	70,000	40,000	40%	65%	50%
Sunflowers	CDPR (2013-2017)	CA (3 %)	50,000	9,000	10%	20%	15%
Jojoba Bean	CDPR (2013-2017)	CA (D %)	<500	#	#	#	#
Jojoba Bean	**	<i>Other States</i>	**	**	**	**	**
Safflower	CDPR (2013-2017)	CA (32 %)	50,000	#	#	#	#
Safflower	**	<i>Other States</i>	**	**	**	**	**
<i>Other Oil Seed Crops</i>	**	**	**	**	**	**	**
<b>Stalk, Stem and Leaf Petiole Vegetable Group</b>	+	+	+	+	+	+	<b>Full Crop Group Not Registered</b>
Asparagus	Kynetec (2014-2018)	CA	9,000	5,000	20%	55%	35%
Asparagus	Kynetec (2014-2018)	MI	10,000	20,000	85%	100%	90%
Asparagus	Kynetec (2014-2018)	WA	4,000	1,000	0%	45%	25%
Aloe vera	**	**	**	**	**	**	**



Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Bamboo Shoots	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Bamboo Shoots	**	<i>Other States</i>	**	**	**	**	**
Cactus Leaf	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Cactus Leaf	**	<i>Other States</i>	**	**	**	**	**
Cactus Pear	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Cactus Pear	**	<i>Other States</i>	**	**	**	**	**
Palm (heart, leaves, oil)	**	**	**	**	**	**	**
<b>Topical and Subtropical Fruit Group</b>	+	+	+	+	+	+	+
Avocados	CDPR (2013-2017)	CA (81%)	60,000	80,000	55%	65%	60%
Dates, Bearing	NASS (2015)	CA	7,000	7,000	25%	25%	25%
Figs	CDPR (2013-2017)	CA (96%)	7,000	20,000	75%	115%	95%
Olives	CDPR (2013-2017)	CA (97%)	50,000	30,000	40%	55%	45%
Persimmons	CDPR (2013-2017)	CA (82%)	4,000	4,000	70%	85%	80%
Pomegranates	CDPR (2013-2017)	CA (98%)	30,000	40,000	50%	110%	70%
Cherimoya	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Cherimoya	**	<i>Other States</i>	**	**	**	**	**
Guava	CDPR (2013-2017)	CA (15 %)	<500	#	#	#	#
Guava	**	<i>Other States</i>	**	**	**	**	**
Jujube	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Jujube	**	<i>Other States</i>	**	**	**	**	**
Mango	CDPR (2013-2017)	CA (D %)	(D)	#	#	#	#
Mango	**	<i>Other States</i>	**	**	**	**	**
<i>Other Topical and Subtropical Fruits</i>	**	**	**	**	**	**	**

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Misc	+	+	+	+	+	+	Full Crop Group Not Registered
Artichoke	Kynetec (2014-2018)	CA	7,000	<500	0%	10%	<2.5%
Cotton	Kynetec (2014-2018)	AL	400,000	800,000	90%	100%	95%
Cotton	Kynetec (2014-2018)	AZ	100,000	300,000	95%	100%	100%
Cotton	Kynetec (2014-2018)	AR	400,000	800,000	85%	105%	95%
Cotton	Kynetec (2014-2018)	CA	200,000	400,000	70%	90%	85%
Cotton	Kynetec (2014-2018)	FL	100,000	200,000	55%	100%	90%
Cotton	Kynetec (2014-2018)	GA	1,300,000	2,300,000	90%	95%	95%
Cotton	Kynetec (2014-2018)	KS	20,000	40,000	0%	100%	60%
Cotton	Kynetec (2014-2018)	LA	200,000	400,000	80%	100%	100%
Cotton	Kynetec (2014-2018)	MS	500,000	800,000	75%	100%	85%
Cotton	Kynetec (2014-2018)	MO	300,000	500,000	60%	100%	80%
Cotton	Kynetec (2014-2018)	NC	400,000	800,000	90%	100%	95%
Cotton	Kynetec (2014-2018)	OK	400,000	800,000	85%	100%	95%
Cotton	Kynetec (2014-2018)	SC	200,000	300,000	90%	100%	95%
Cotton	Kynetec (2014-2018)	TN	300,000	400,000	80%	100%	95%
Cotton	Kynetec (2014-2018)	TX	6,100,000	10,700,000	75%	95%	85%
Fallow	Kynetec (2014-2018)	CA	200,000	70,000	10%	35%	25%
Fallow	Kynetec (2014-2018)	CO	2,000,000	2,200,000	60%	75%	70%
Fallow	Kynetec (2014-2018)	ID	200,000	200,000	40%	60%	50%
Fallow	Kynetec (2014-2018)	KS	3,200,000	3,000,000	65%	70%	65%
Fallow	Kynetec (2014-2018)	LA	100,000	200,000	40%	90%	65%
Fallow	Kynetec (2014-2018)	MN	70,000	30,000	20%	60%	40%

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Fallow	Kynetec (2014-2018)	MT	2,700,000	4,300,000	75%	90%	85%
Fallow	Kynetec (2014-2018)	NE	900,000	900,000	35%	65%	60%
Fallow	Kynetec (2014-2018)	ND	300,000	300,000	55%	70%	60%
Fallow	Kynetec (2014-2018)	OK	400,000	300,000	45%	65%	55%
Fallow	Kynetec (2014-2018)	OR	600,000	700,000	75%	80%	75%
Fallow	Kynetec (2014-2018)	SD	300,000	200,000	50%	85%	65%
Fallow	Kynetec (2014-2018)	TX	900,000	400,000	20%	40%	30%
Fallow	Kynetec (2014-2018)	UT	90,000	20,000	10%	40%	20%
Fallow	Kynetec (2014-2018)	WA	1,200,000	1,100,000	55%	80%	70%
Fallow	Kynetec (2014-2018)	WY	100,000	100,000	10%	80%	45%
Peanuts	Kynetec (2014-2018)	AL	200,000	100,000	40%	70%	55%
Peanuts	Kynetec (2014-2018)	FL	200,000	90,000	30%	50%	40%
Peanuts	Kynetec (2014-2018)	GA	700,000	100,000	15%	30%	20%
Peanuts	Kynetec (2014-2018)	NC	100,000	20,000	15%	30%	20%
Peanuts	Kynetec (2014-2018)	OK	20,000	10,000	75%	100%	90%
Peanuts	Kynetec (2014-2018)	SC	100,000	50,000	45%	65%	55%
Peanuts	Kynetec (2014-2018)	TX	200,000	30,000	10%	25%	15%
Peanuts	Kynetec (2014-2018)	VA	20,000	7,000	0%	65%	40%
Peanuts	CDPR (2013-2017)	CA (0.002 %)	<500	#	#	#	#
Tobacco	Kynetec (2014-2018)	GA	10,000	<500	0%	10%	<2.5%
Tobacco	Kynetec (2014-2018)	KY	80,000	10,000	10%	20%	15%
Tobacco	Kynetec (2014-2018)	NC	200,000	9,000	<2.5%	10%	10%
Tobacco	Kynetec (2014-2018)	OH	2,000	<500	0%	<2.5%	<1%
Tobacco	Kynetec (2014-2018)	PA	8,000	2,000	0%	50%	20%

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Crop	Data Source	States with Reported Usage	Avg. Annual Crop Acres Grown†	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Tobacco	Kynetec (2014-2018)	TN	20,000	4,000	5%	45%	20%
Tobacco	Kynetec (2014-2018)	VA	30,000	2,000	0%	15%	10%
Tobacco	Kynetec (2014-2018)	SC	10,000	NR	NR	NR	NR
Kenaf, Leucaena	**	**	**	**	**	**	**
Sugarcane	CDPR (2013-2017)	CA (--%)	NR	#	#	#	#
Sugarcane	**	<i>Other States</i>	**	**	**	**	**
Conservation Reserve Program (CRP) Land	**	**	**	**	**	**	**

Notes	
Kynetec (YEARS)	Agricultural usage surveyed by market research firm(s).
NASS (YEARS)	Surveyed by United States Department of Agriculture National Agricultural Statistics Service.
CDPR (YEARS)	Surveyed by the California Department of Pesticide Regulation. Percent of crop grown in California included in parentheses. When over 80% of crop is grown in California, usage is considered to be representative of National usage. When less than 80% of crop is grown in California, but no national source surveys the crop, CDPR data is provided for California, but is not considered to be nationally representative. In these cases, survey data is unavailable for other states where the crop is grown.
*	California crop. Over than 80% of crop grown in California. California usage is considered to be representative of National usage.
†	CAG represents the total number of acres that are grown of the crop in each state. It is independent of treatment with any pesticide. CAG source is the 2017 Census of Agriculture for NASS and CDPR sites, and Kynetec for Kynetec sites. Kynetec calculates CAG yearly based on the Census of Agriculture and other NASS data.
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.
+	See constituent crops below.
NR	Surveyed by the indicated source in the years listed, but no usage reported.
--	Data unavailable.
**	Site not surveyed at national level .
(D)	Data withheld by NASS to avoid disclosing data for individual operations.
#	Data withheld due to likely underestimate caused by reporting issue.

**Table 3. National Glyphosate Non-Agricultural Usage by Crop. Data averaged over reported years. Values are rounded according to rounding rules provided in the Introduction.**

Use Site	Data Source	Region <sup>c</sup>	Avg. Annual Pounds ae Applied <sup>a</sup>	Avg. Annual Total Acres Treated <sup>b</sup>	For General Weed Control <sup>d</sup>	For Total Vegetation Control <sup>d</sup>
					Max Single Labeled Rate lb AE/ <sup>a</sup>	Max Single Labeled Rate lb AE/ <sup>a</sup>
<b>Aquatic Sites (including all bodies of fresh and brackish water that may be flowing, nonflowing or transient)</b>	+	+	+	+	<b>8.0</b>	<b>--</b>
Aquatic herbicides	Kline (2016)	All	400,000	300,000	8.0	--
Aquatic herbicides	Kline (2016)	North Central	200,000	100,000	8.0	--
Aquatic herbicides	Kline (2016)	Northeast	50,000	30,000	8.0	--
Aquatic herbicides	Kline (2016)	South	10,000	7,000	8.0	--
Aquatic herbicides	Kline (2016)	Deep South	200,000	90,000	8.0	--
Aquatic herbicides	Kline (2016)	West	30,000	20,000	8.0	--
<b>Rights of Way</b>	+	+	+	+	<b>8.0</b>	<b>40.0</b>
Roadways	Kline (2016)	All	4,700,000	2,700,000	8.0	40.0
Roadways	Kline (2016)	North Central	400,000	200,000	8.0	40.0
Roadways	Kline (2016)	Northeast	600,000	300,000	8.0	40.0
Roadways	Kline (2016)	South/Deep South	2,200,000	1,200,000	8.0	40.0
Roadways	Kline (2016)	West	1,600,000	1,100,000	8.0	40.0

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Use Site	Data Source	Region <sup>c</sup>	Avg. Annual Pounds ae Applied <sup>a</sup>	Avg. Annual Total Acres Treated <sup>b</sup>	Max Single Labeled Rate lb AE/ <sup>a</sup>	Max Single Labeled Rate lb AE/ <sup>a</sup>
Railways	Kline (2016)	All	600,000	400,000	8.0	40.0
Railways	Kline (2016)	Midwest	300,000	200,000	8.0	40.0
Railways	Kline (2016)	Northeast	20,000	20,000	8.0	40.0
Railways	Kline (2016)	South/Deep South	100,000	80,000	8.0	40.0
Railways	Kline (2016)	West	100,000	60,000	8.0	40.0
Utility and Pipeline ROWs	Kline (2016)	All	800,000	400,000	8.0	40.0
Utility and Pipeline ROWs	Kline (2016)	Midwest	200,000	80,000	8.0	40.0
Utility and Pipeline ROWs	Kline (2016)	Northeast	100,000	50,000	8.0	40.0
Utility and Pipeline ROWs	Kline (2016)	South/Deep South	400,000	200,000	8.0	40.0
Utility and Pipeline ROWs	Kline (2016)	West	100,000	30,000	8.0	40.0
<b>Trees (non-food crops and forestry)</b>	<b>+</b>	<b>+</b>	<b>+</b>	<b>+</b>	<b>8.0</b>	<b>40.0</b>
Forestry (production areas or plantations including site preparation, mid-rotation and other release treatments, timber stand improvement, poplar production, silvicultural nursery sites, reforestation treatments and maintaining logging roads)	Kline (2016)	All	4,200,000	900,000	8.0	40.0
Forestry	Kline (2016)	North Central	30,000	10,000	8.0	40.0
Forestry	Kline (2016)	Northeast	70,000	30,000	8.0	40.0
Forestry	Kline (2016)	South/Deep South	3,700,000	600,000	8.0	40.0
Forestry	Kline (2016)	West	400,000	200,000	8.0	40.0

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Use Site	Data Source	Region <sup>c</sup>	Avg. Annual Pounds ae Applied <sup>a</sup>	Avg. Annual Total Acres Treated <sup>b</sup>	Max Single Labeled Rate lb AE/ <sup>a</sup>	Max Single Labeled Rate lb AE/ <sup>a</sup>
Other Non-Food Tree Crops (including pine, poplar, eucalyptus, christmas trees)	**	**	**	**	8.0	40.0
<b>Agricultural Turf (grass or turfgrass seed and sod production)</b>	+	+	+	+	<b>8.0</b>	<b>--</b>
Ornamental Sod Farm (Turf)	Kline (2013)	All	6,000	3,000	8.0	--
Ornamental Sod Farm (Turf)	Kline (2013)	North Central	--	--	8.0	--
Ornamental Sod Farm (Turf)	Kline (2013)	Northeast	1,000	<500	8.0	--
Ornamental Sod Farm (Turf)	Kline (2013)	South	3,000	1,000	8.0	--
Ornamental Sod Farm (Turf)	Kline (2013)	Deep South	--	--	8.0	--
Ornamental Sod Farm (Turf)	Kline (2013)	West	2,000	700	8.0	--
Grass or Turfgrass Seed Production	**	**	**	**	8.0	--
<b>Ornamental Lawns, Turf, and associated Ornamentals (in residential, commercial, industrial, institutional, and government areas)</b>	+	+	+	+	<b>40.0<sup>d</sup></b>	<b>40.0<sup>d</sup></b>
Applied by Consumers (applications to household/domestic dwellings outdoor premises)	Kline (2016)	All	5,000,000	--	40.0	40.0
Applied by Landscape Contractors (includes applications to turf, trees, flowers, and other ornamentals)	Kline (2013)	All	500,000	300,000	40.0	40.0
Applied by Landscape Contractors	Kline (2013)	North Central	3,000	4,000	40.0	40.0
Applied by Landscape Contractors	Kline (2013)	Northeast	10,000	5,000	40.0	40.0
Applied by Landscape Contractors	Kline (2013)	South	100,000	60,000	40.0	40.0

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Use Site	Data Source	Region <sup>c</sup>	Avg. Annual Pounds ae Applied <sup>a</sup>	Avg. Annual Total Acres Treated <sup>b</sup>	Max Single Labeled Rate lb AE/ <sup>a</sup>	Max Single Labeled Rate lb AE/ <sup>a</sup>
Applied by Landscape Contractors	Kline (2013)	Deep South	60,000	30,000	40.0	40.0
Applied by Landscape Contractors	Kline (2013)	West	300,000	200,000	40.0	40.0
Applied by Lawn Care Operators (primarily includes applications to lawns/turf)	Kline (2013)	All	1,300,000	800,000	40.0	40.0
Applied by Lawn Care Operators	Kline (2013)	North Central	200,000	200,000	40.0	40.0
Applied by Lawn Care Operators	Kline (2013)	Northeast	200,000	100,000	40.0	40.0
Applied by Lawn Care Operators	Kline (2013)	South	30,000	10,000	40.0	40.0
Applied by Lawn Care Operators	Kline (2013)	Deep South	600,000	300,000	40.0	40.0
Applied by Lawn Care Operators	Kline (2013)	West	400,000	200,000	40.0	40.0
<b>Institutional Turf Facilities (including educational facilities, cemeteries, and parks)</b>	+	+	+	+	<b>8.0</b>	<b>40.0<sup>d</sup></b>
Institutional Turf Facilities	Kline (2013)	All	1,900,000	800,000	8.0	40.0
Institutional Turf Facilities	Kline (2013)	North Central	300,000	100,000	8.0	40.0
Institutional Turf Facilities	Kline (2013)	Northeast	200,000	70,000	8.0	40.0
Institutional Turf Facilities	Kline (2013)	South	100,000	50,000	8.0	40.0
Institutional Turf Facilities	Kline (2013)	Deep South	800,000	400,000	8.0	40.0
Institutional Turf Facilities	Kline (2013)	West	400,000	200,000	8.0	40.0



Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Use Site	Data Source	Region <sup>c</sup>	Avg. Annual Pounds ae Applied <sup>a</sup>	Avg. Annual Total Acres Treated <sup>b</sup>	Max Single Labeled Rate lb AE/ <sup>a</sup>	Max Single Labeled Rate lb AE/ <sup>a</sup>
<b>Golf Courses (includes treatment to associated ornamentals and aquatic treatments)</b>	+	+	+	+	<b>8.0</b>	<b>40.0<sup>d</sup></b>
Golf Courses	Kline (2013)	All	400,000	200,000	8.0	40.0
Golf Courses	Kline (2013)	North Central	20,000	6,000	8.0	40.0
Golf Courses	Kline (2013)	Northeast	20,000	7,000	8.0	40.0
Golf Courses	Kline (2013)	South	100,000	50,000	8.0	40.0
Golf Courses	Kline (2013)	Deep South	100,000	60,000	8.0	40.0
Golf Courses	Kline (2013)	West	100,000	60,000	8.0	40.0
<b>Nursery and Greenhouse Ornamentals</b>	+	+	+	+	<b>8.0</b>	<b>40.0<sup>d</sup></b>
Nursery and Greenhouse Ornamentals	Kline (2013)	All	1,800,000	1,100,000	8.0	40.0
Nursery and Greenhouse Ornamentals	Kline (2013)	North Central	80,000	40,000	8.0	40.0
Nursery and Greenhouse Ornamentals	Kline (2013)	Northeast	300,000	200,000	8.0	40.0
Nursery and Greenhouse Ornamentals	Kline (2013)	South	900,000	500,000	8.0	40.0
Nursery and Greenhouse Ornamentals	Kline (2013)	Deep South	100,000	70,000	8.0	40.0
Nursery and Greenhouse Ornamentals	Kline (2013)	West	400,000	200,000	8.0	40.0

Glyphosate National and State Summary Use and Usage Matrix (4-15-20, revised 5-19-20)

Use Site	Data Source	Region <sup>c</sup>	Avg. Annual Pounds ae Applied <sup>a</sup>	Avg. Annual Total Acres Treated <sup>b</sup>	Max Single Labeled Rate lb AE/ <sup>a</sup>	Max Single Labeled Rate lb AE/ <sup>a</sup>
<b>Other Non-Cropland Uses not listed above</b>	**	**	**	**	<b>8.0</b>	<b>40.0<sup>d</sup></b>

Notes	
Kline (YEAR)	Non-agricultural usage surveyed by market research firm(s)
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 2013 JGTF Use Matrix.
d	Note: The 2013 JGTF Use Matrix proposes a maximum single and yearly rate of 40 lb ae/a for all sites on label 228-713. The UST labels this section of the UST as Residential. While this label is described as a "consumer concentrate" and gives rates for small areas (150 sq. ft.), the UST lists a number of use sites that are not necessarily residential ("Includes: along and on sidewalks, gravel/brick walkways, paths, curbs, paved areas (private roads and streets), driveways, parking areas, recreational areas including parks and sports facilities; fields and trails; along ornamental lawns and turfgrass; around or near ornamental/shade trees, fruit and nut trees, grapevines, shrubs, groundcovers, flower beds, mulched landscape beds; around or in fruit, vegetable and herb gardens; along fences, hedgerows, under fence lines; around rocks, signposts, light posts or fringe areas; around or along buildings/structures, foundations, patios, houses, mobile homes, vacant lots, urban areas, domestic outdoor premises, and other areas associated with household or home life; urban areas where total vegetation control is desired; wildlife areas; farmsteads where total vegetation control is desired (around farmstead building foundations, along fences, hedgerows, fencerows, under fence lines, around shelterbelts and other areas where nonselective weed control is desired)"). Many of these sites overlap with the sites listed in the Non-Crop section of the UST. For this reason, the 40 lb ae/a rate is listed in this SUUM for some sites, rather than the 8.0 lb ae/a single and yearly rate that is listed for "non-crop" uses in the UST for label 524-579.
e	Geographic regions based on U.S. Census Bureau regions. Northeast (ME, NH, VT, MA, CT, RI, NJ, NY, PA) North Central (ND, MN, WI, MI, OH, IN, IL, IA, ND, NE, SD, MO) West (WA, OR, CA, ID, NV, MT, WY, UT, CO, AZ, NM) South (OK, AR, TN, KY, WV, MD, DE, VA, NC) Deep South (TX, LA, MS, AL, GA, SC, FL)
+	See constituent use sites below.
**	Site not surveyed at national level.
--	Data unavailable.