

## APPENDIX 1-4. Usage Data for Propazine - SUUM

See attached memorandum, Propazine (080808) National and States Summary Use and Usage Matrix (October 21, 2020) from the Biological and Economic Analysis Division.



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

OFFICE OF  
CHEMICAL SAFETY AND  
POLLUTION PREVENTION

**March 13, 2020**

**MEMORANDUM**

**SUBJECT:** Propazine (080808) National and State Summary Use and Usage Matrix

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**Introduction**

This document contains national and state-level use and usage data on propazine, an herbicide registered for control of annual broadleaf weeds in sorghum and ornamental crops. National-level agricultural data are presented in Figure 1 and Table 1; state-level agricultural data are presented in Table 2; national-level non-agricultural data are presented in Table 3.

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

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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 do 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 atrazine, nationally and by state. All registered use sites as of September 2019 are listed although usage data are not available for every site.

The intended use of the data presented here is to inform assumptions about how propazine is used in the United States and the extent, variability, and rate of that usage at the state-level. Pesticide usage data are not reported below 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 (Table 2). PCT is calculated as the percent of the acres grown for a crop (CAG) that are treated with propazine. Additionally, the data may inform assumptions about crops and states where propazine is likely not being used, by identifying crops that are surveyed 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 propazine.

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 2019 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.
- **Kline and Company Data (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

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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.

### Data Presentation

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 1-2 years for Kline), regardless of whether usage is observed in each surveyed year. The presented data may thus underestimate the maximum yearly usage. For crops less than 80% California production, Kynetec is the primary source of usage data. Kynetec is the primary data source as it is collected annually and tends to provide the most robust usage data among the available data sources. 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.
- In some cases, not enough samples are available to establish a robust average. This is indicated with the notation "Insufficient number of reports to establish an estimate". Generally, this indicates that the chemical is only periodically used by a small number of users.
- 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. Generally, the 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.

Variables are rounded as follows:

- **Average pounds of active ingredient applied and average total acres treated**— Annual average pounds of the pesticide applied and total acres treated are reported for each agricultural crop (i.e., **for surveyed states**, not for the entire United States). Values are calculated by averaging within years, averaging across years, 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")

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- **Average percent of crop treated** - Values are calculated by averaging within years, averaging across years, 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 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.*

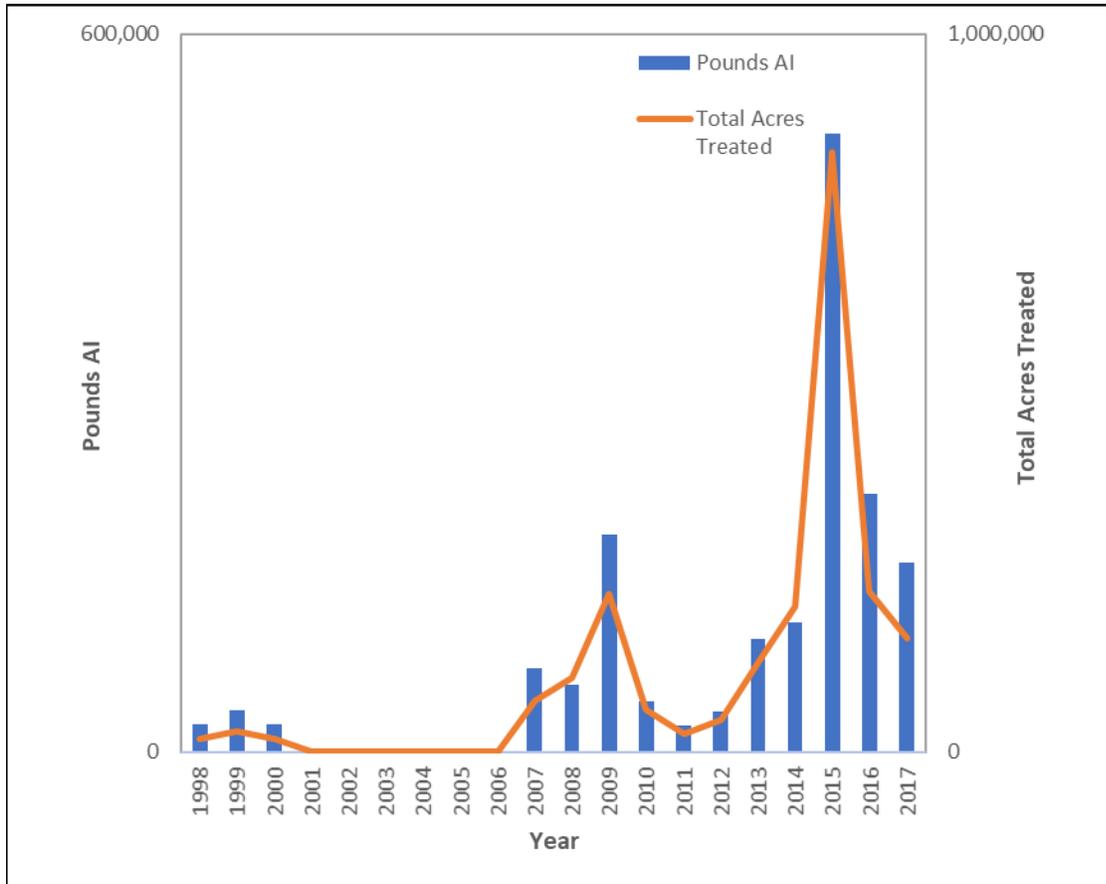
### Summary

Propazine is an herbicide, registered in 1998, for control of annual broadleaf weeds in sorghum and ornamental crops. The agricultural usage trend for propazine since 1998 is presented in Figure 1. Nationally, propazine usage on sorghum was very low from 1998 through 2007. During the most recent 10 years of data, propazine usage has remained relatively consistent, except for 2015, which showed an increase in both pounds active ingredient applied and total acres treated. This increase corresponded with a spike in sorghum crop acres grown in the same year (Figure 1). During the most recent five years of available survey data (Kynetec 2013 - 2017), an annual average of approximately 200,000 pounds of propazine was applied to an approximate average of 300,000 acres of agricultural crops, (Table 1), in 3 states (Table 2). Approximately 100% of the pounds of propazine applied and total acres treated agriculturally are to sorghum (Milo). Further information on national usage of propazine by crop is available in Table 1. Further information on percent of crops treated with propazine by state is available in Table 2. National-level non-agricultural usage data are available in Table 3.

### Agricultural Usage

Propazine is an herbicide registered for use on the sites listed in the tables below. The following document presents a summary of the use and usage data that are available to the Agency on this active ingredient, during the years listed.

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

Source: Kynetec. 1998-2017.

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

Crop	Data Source	States with Reported Usage	Avg. Annual Pounds AI Applied <sup>a</sup>	Avg. Annual Total Acres Treated <sup>b</sup>	% Applied by Air	Avg. Single AI Rate (lbs AI/A)	Max Single Labeled Rate <sup>c</sup> (lbs AI/A)
<b>Field Crops</b>	See individual crops below						1.20
Sorghum (Milo)	Kynetec (2013-2017)	OK, KS, TX	200,000	300,000	0%	0.71	1.20

Notes	
Kynetec (YEAR-YEAR)	Agricultural usage surveyed by market research firm(s). Values rounded.
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 2019 Propazine Pesticide Label Use Summary (PLUS) Maximum Use Scenario Report.

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

Crop	Data Source	State	Avg. Annual Crop Acres Grown <sup>†</sup>	Avg. Annual Total Lbs. AI Applied <sup>a</sup>	Min. Annual PCT	Max. Annual PCT	Avg. Annual PCT
Field Crops	See individual crops below						
Sorghum (Milo)	Kynetec (2013-2017)	Oklahoma	400,000	1,000	0%	<2.5%	<1%
		Kansas	3,000,000	5,000	0%	<2.5%	<1%
		Texas	2,500,000	200,000	5%	30%	15%
		AR, CO, GA, IL, LA, MO, NE, NM, OK, SD	1,400,000	Surveyed but No Usage Reported			

Notes	
Kynetec (YEAR-YEAR)	Agricultural usage surveyed by market research firm(s). Values Rounded.
†	Crop Acres Grown (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 values come from Kynetec estimate.
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.

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### Non-Agricultural Usage

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

Site	Data Source	Avg. Annual Pounds AI Applied <sup>a</sup>	Avg. Annual Acres Treated <sup>b</sup>	Max Single Labeled Rate (lb AI/A) <sup>c</sup>
Ornamentals	Kline (2014)	Surveyed but No Usage Reported		1.53

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 2019 Propazine Pesticide Label Use Summary (PLUS) Report.

**Attachment:** Propazine SUUM\_2020\_final.xlsx