

Pesticide Contamination Prevention Program

A.R.S. § 49-1051.D

The Arizona Pesticide Contamination Prevention Program works to prevent or eliminate groundwater contamination from routine agricultural pesticide use. Registrants must provide the Arizona Department of Environmental Quality (ADEQ) with detailed physico-chemical and environmental fate data on pesticide active ingredients in their agricultural pesticide products. By the end of FY 2000, all registrants completed the program's data call-in requirements. That information was used to generate the Groundwater Protection List (GWPL), which compiles pesticide active ingredients in agricultural pesticide products that have the potential to pollute groundwater. The GWPL was established and adopted by ADEQ's director on Jan. 21, 1992 and certified by the State Attorney General on Sept. 29, 1992. Groundwater and soil monitoring for pesticide active ingredients on the GWPL is an ongoing process. The program staff also conduct special pesticide projects in response to public requests.

In FY 2000, a total of 79 groundwater samples and 26 soil samples were collected and tested for GWPL pesticide active ingredients statewide. These groundwater samples were collected from Yuma, Maricopa, Pinal and Cochise counties; the soil samples were collected from 24 sites in Yuma and Maricopa counties.

The Environmental Quality Act of 1987 established the Pesticide Contamination Prevention Program and requires ADEQ to generate the GWPL based on pesticide active ingredients for which there are groundwater protection data gaps and pesticide active ingredients that exceed Specific Numeric Values (SNVs) established by ADEQ. The act also requires ADEQ to generate use and sales data on soil applied agricultural pesticide products containing active ingredients on the GWPL for the most recent available year of record. Since July 1987, ADEQ has reviewed the physico-chemical and environmental fate data of agricultural use pesticide active ingredients submitted by registrants in Arizona. In reviewing the data, ADEQ's goal has been to provide the greatest level of protection to the environment while minimizing negative impacts on Arizona agriculture.

Registrants of pesticide active ingredients in violation of the data call-in requirements are subject to penalty, and registration of agricultural pesticide products containing those pesticide active ingredients is subject to instant cancellation. Data call-in information on pesticide active ingredients registered prior to Dec. 1, 1987 was due Dec. 1, 1991. The data call-in process for these pesticide active ingredients was

FYI

The Environmental Quality Act of 1987 established the Pesticide Contamination Prevention Program which requires ADEQ to generate the Groundwater Protection List (GWPL) based on pesticide active ingredients for which there are groundwater protection data gaps and pesticide active ingredients that exceed Specific Numeric Values (SNVs) established by ADEQ, and use and sales data on soil applied agricultural pesticide products containing active ingredients on the GWPL for the most recent available year of record.

Table Contents

Table V.4 - The 190 pesticide active ingredients that have failed the Specific Numeral Values (SNVs) criteria associated with mobility and persistence factors

Table V.5 - Reported pesticide applications in soil by county

Table V.6 - Sales information on agricultural pesticide products containing pesticide active ingredients on the adopted GWPL that are intended for soil application outside Arizona

Table V.7 - Sales information on agricultural pesticide products containing pesticide active ingredients on the adopted GWPL that are intended for soil application within Arizona

completed in December 1992.

As of June 30, 2000, ADEQ received submittals for 286 registered pesticide active ingredients. Only 240 of those pesticide active ingredients are currently being used and can be found in 1,446 registered agricultural pesticide products in Arizona. The data call-in requirements have been completely satisfied for all of these registered pesticide active ingredients. No data gap exists in currently registered agricultural pesticide products.

The GWPL is a list of pesticide active ingredients that have the potential to pollute groundwater. Pesticide active ingredients on the GWPL are subject to reporting requirements as specified by §A.R.S. 49-305 A. While an updated GWPL was drafted on June 30, 2000, it has not yet been adopted nor certified. This report contains the draft GWPL based on the data as of June 30, 2000.

Groundwater Protection Data Gaps

ADEQ reviewed the physico-chemical and environmental fate data of agricultural pesticide active ingredients submitted by registrants for validity, completeness and adequacy. Where this cannot be determined, or where data have not been submitted, a data gap exists. There are no existing

data gaps as of June 30, 2000.

Draft Groundwater Protection Protection List

Once complete and valid data are approved for a pesticide active ingredient, the information is compared with SNVs to assess the potential of that pesticide active ingredient to leach to groundwater. Rule §A.A.C. R18-6-103 established the SNVs in 1992. These SNVs were selected because they are flagging criteria published by EPA. Pesticide active ingredients that fail these criteria are included on the GWPL.

The GWPL provides information on pesticide active ingredients that ADEQ's monitoring activities can target in areas where they are used. If these pesticide active ingredients are detected in the groundwater or soil, ADEQ may either require registrants to modify their use patterns or cancel their registrations to prevent further contamination, depending on their detected level.

The Environmental Quality Act requires that individuals report to ADEQ on the use and sales of any soil applied agricultural pesticide products containing pesticide active ingredients on the GWPL. This information can then identify potential areas for monitoring these pesticide active ingredients.

The 190 pesticide active ingredients that have failed the SNVs' criteria associated with mobility and persistence factors are listed in Table V.5. An pesticide active

Table V.P1 Draft Groundwater Protection List

C_CAS	C_name	C_CAS	C_name
542-75-6	1,3-Dichloropropene	99129-21-2	Clethodim
1928-43-4	2,4-D 2-Ethylhexyl Ester	1702-17-6	Clopyralid
94-75-7	2,4-D Acid	13426-91-0	Copper - Ethylenediamine
33333-3333	2,4-D Alkanol*amine Salts of Ethanol and Isopropanol	82027-59-6	Copper - Triethanolamine Complex
137335-70-7	2,4-D Alkyl*amine *(as in tall oil fatty acids)	33113-08-5	Copper Ammonium Carbonate
1929-73-3	2,4-D Butoxyethyl Ester	12069-69-1	Copper Carbonate
2212-54-6	2,4-D DDA (Dodecyclamine Salt)	20427-59-2	Copper Hydroxide
5742-19-8	2,4-D Diethanolamine Salt	7758-99-8	Copper Sulfate
2008-39-1	2,4-D Dimethylamine Salt	420-04-2	Cyanamide
533-23-3	2,4-D Ethylhexyl Ester	21725-46-2	Cyanazine
1713-15-1	2,4-D Isobutyl Ester	1134-23-2	Cycloate
53404-37-8	2,4-D Isooctyl (2-ethyl-4-methylpentyl)	66215-27-8	Cyromazine
5742-17-6	2,4-D Isopropylamine Salt	52918-63-5	Deltamethrin
2212-59-1	2,4-D N-oleyl-1,3-propylenediamine Salt	13684-56-5	Desmedipham
28685-18-9	2,4-D TDA (Tetradecyclamine)	333-41-5	Diazinon
2646-78-8	2,4-D Triethylamine Salt	1918-00-9	Dicamba
32341-80-3	2,4-D Triisopropanolamine Salt	25059-78-3	Dicamba, DEA Salt
32357-46-3	2,4-DB, Butoxyethyl Ester	2300-66-5	Dicamba, DMA Salt
2758-42-1	2,4-DB, DMA Salt	10007-85-9	Dicamba, Potassium Salt
30560-19-1	Acephate	1982-69-0	Dicamba, Sodium Salt
107-02-8	Acrolein	1194-65-6	Dichlobenil
15972-60-8	Alachlor	99-30-9	Dicloran
116-06-3	Aldicarb	38727-55-8	Diethathyl Ethyl
834-12-8	Ametryn	43222-48-6	Difenzoquat Methyl Sulfate
61-82-5	Amitrole	60-51-5	Dimethoate
7778-39-4	Arsenic Acid	110488-70-5	Dimethomorph
2302-17-2	Asulam, Sodium Salt	957-51-7	Diphenamid
1912-24-9	Atrazine	85-00-7	Diquat Dibromide
86-50-0	Azinphos-methyl	330-54-1	Diuron
131860-33-8	Azoxystrobin	79277-27-3	DPX-M6316
22781-23-3	Bendiocarb	144-21-8	DSMA - Disodium Methanearsonate
17804-35-2	Benomyl	115-29-7	Endosulfan
314-40-9	Bromacil	145-73-3	Endothall
2008-41-5	Butylate	2164-07-0	Endothall, Dipotassium Salt of
75-60-5	Cacodylic Acid (Dimethylarsinic Acid)	129-67-9	Endothall, Disodium Salt of
124-65-2	Cacodylic Acid, Sodium Salt	759-94-4	EPTC
133-06-2	Captan	16672-87-0	Ethephon
63-25-2	Carbaryl	26225-79-6	Ethofumesate
1563-66-2	Carbofuran	13194-48-4	Ethoprop
5234-68-4	Carboxin	56-38-2	Ethyl Parathion
128639-02-1	Carfentrazone-ethyl	2593-15-9	Etridiazole
76-06-2	Chloropicrin	22224-92-6	Fenamiphos
1897-45-6	Chlorothalonil	60168-88-9	Fenarimol
64902-72-3	Chlorsulfuron	69806-50-4	Fluazifop-butyl
		79241-46-6	Fluazifop-p-butyl - Fluazifop-r-butyl
		70124-77-5	Flucythrinate
		142459-58-3	Flufenacet - (Thiaflumide)

Table V.P1 Draft Groundwater Protection List

C_CAS	C_name	C_CAS	C_name
2164-17-2	Fluometuron	27314-13-2	Norflurazon
59756-60-4	Fluridone	19044-88-3	Oryzalin
66332-96-5	Flutolanil	23135-22-0	Oxamyl
102851-06-9	Fluvalinate	301-12-2	Oxydemeton-methyl
23422-53-9	Formetanate Hydrochloride	1910-42-5	Paraquat Dichloride
25954-13-6	Fosamine Ammonium	1114-71-2	Pebulate
39148-24-8	Fosetyl-AL ---- Aliette	732-11-6	Phosmet
77182-82-2	Glufosinate-ammonium	13171-21-6	Phosphamidon
38641-94-0	Glyphosate, isopropylamine Salt of	1918-02-1	Picloram
112226-61-6	Halofenozide	26952-20-5	Picloram, Isooctyl Ester of
100784-20-1	Halosulfuran-methyl	2545-60-0	Picloram, Potassium Salt
51235-04-2	Hexazinone	6753-47-5	Picloram, Triisopropanolamine Salt
35554-44-0	Imazalil	51-03-6	Piperonyl Butoxide
81405-85-8	Imazamethabenz-methyl (Meta)	41198-08-7	Profenofos
81405-85-8	Imazamethabenz-methyl (Para)	1610-78-0	Prometon
104098-48-8	Imazapic	7287-19-6	Prometryn
81335-37-7	Imazaquin	23950-58-5	Pronamide
81335-77-5	Imazethapyr	25606-41-1	Propamocarb
101917-66-2	Imazethapyr, Ammonium Salt	60207-90-1	Propiconazole
138261-41-3	Imidacloprid	94125-34-5	Prosulfuron
42509-80-8	Isazophos	123312-89-0	Pymetrozine
58-89-9	Lindane	1698-60-8	Pyrazon (Chlordiazon)
330-55-2	Linuron	123343-16-8	Pyriothiobac Sodium
128-58-3	MAA - Methanearsonic Acid	74051-80-2	Sethoxydim
121-75-5	Malathion	122-34-9	Simazine
28282-15-2	Maleic Hydrazide, potassium Salt	50723-80-3	Sodium Bentazon
12427-38-2	Maneb	7775-09-9	Sodium Chlorate
94-74-6	MCPA	74222-97-2	Sulfometuron-methyl
2039-46-5	MCPA, DMA Salt	81591-81-3	Sulfosate
26544-20-7	MCPA, Isooctyl Ester	35400-43-2	Sulprofos
3653-48-3	MCPA, Sodium Salt	112410-23-8	Tebufenozide
70630-17-0	Mefenoxam = (Ridomil Gold) (Apron XI Ls)	34014-18-1	Tebuthiuron
24307-26-4	Mepiquat Chloride	5902-51-2	Terbacil
57837-19-1	Metalaxyl	13071-79-9	Terbufos
108-62-3	Metaldehyde	886-50-0	Terbutryn
137-42-8	Metam-NA (Sodium)	117718-60-2	Thiazopyr
10265-92-6	Methamidophos	51707-55-2	Thidiazuron
2032-65-7	Methiocarb	59669-26-0	Thiodicarb
16752-77-5	Methomyl	23564-05-8	Thiophanate-methyl
298-00-0	Methyl Parathion	137-26-8	Thiram
51218-45-2	Metolachlor	87820-88-0	Tralkoxydim
21087-64-9	Metribuzin	43121-43-3	Triadimefon
74223-64-6	Metsulfuron Methyl	52-68-6	Trichlorfon
7786-34-7	Mevinphos	55335-06-3	Triclopyr
6923-22-4	Monocrotophos	64700-56-7	Triclopyr, Butoxyethyl Ester
2163-80-6	MSMA - Monosodium Methanearsonate	57213-69-1	Triclopyr, Triethylamine Salt
88671-89-0	Myclobutanil	26644-46-2	Triforine
15299-99-7	Napropamide	95266-40-3	Trinexapac-ethyl
		1929-77-7	Vernolate
		50471-44-8	Vinclozalin

ingredient is considered to have failed if its SNV is greater than one or more of the SNVs established under Rule §A.A.C.. R18-6-103 or is less than the SNV in the case of soil adsorption coefficient. Approximately 66 percent (949 out of 1,446) of the registered agricultural pesticide products in Arizona contain at least one of the pesticide active ingredients listed on the draft GWPL.

Report on Use and Sales of Agricultural Pesticide Products Containing Pesticide Active Ingredients Intended for Soil Application on The Adopted Groundwater Protection List

Rules implementing the GWPL and reporting requirements of the Environmental Quality Act were adopted by ADEQ on Jan. 21, 1992 and certified by the state attorney general on Sept. 29, 1992. ADEQ has implemented the pesticide use and sales reporting requirements.

In January 1993, ADEQ sent notification of the pesticide use reporting requirement and the pesticide products that might be subject to it to more than 3,000 potential pesticide users/applicators, including registered private and commercial pesticide applicators, pesticide control advisors and growers. The notification advised that a new report of users/applicators of agricultural pesticide products containing pesticide active ingredients on the GWPL intended for soil application would be effective Feb. 1, 1993. Such uses must be reported to the Arizona Department of Agriculture on the revised Pesticide Application Report (Form 1080).

In May 1993, ADEQ sent notification of the pesticide sales reporting requirement and the pesticide products that might be subject to it, to more than 120 registered pesticide dealers/sellers. Since local sales data on these pesticide products can also be obtained indirectly from Form 1080 submittals, ADEQ approved the use of Form 1080 to partially fulfill this requirement.

FYI

ADEQ adopted rules implementing the GWPL and reporting requirements of the Environmental Quality Act on January 21, 1992 and the state attorney general certified them on September 29, 1992. ADEQ has implemented the user and dealer/ seller reporting requirements.

Sales information included in this report are derived from:

- ◆ Sales information on agricultural pesticide products containing pesticide active ingredients on the adopted GWPL which are intended for soil application outside Arizona between Jan. 1, 1999 and Dec. 31, 1999 (Table V.6).
- ◆ Sales and use information on agricultural pesticide products containing pesticide active ingredients on the adopted GWPL which are intended for soil application within Arizona between Jan. 1, 1999 and Dec. 31, 1999 (Table V.7).

A total of 119 agricultural pesticide products have met the above criteria. These represent 69 pesticide active ingredients.

Table V.5. Reported Soil Applied Agricultural Pesticide Products Containing Pesticide Active Ingredients on the Adopted GWPL within Arizona by County (Jan. 1, 1999 to Dec. 1, 1999)

EPA1	EPA2	EPA3	Brand	Active Ingredient	Total Chemical	Units	County
228	145		Weedestroy AM-40 Amine Salt	2,4-d, DMA Salt	97.50	gal	COC
59639	75		Payload 15 Granular	Acephate	733.00	lbs	COC
264	330		Temik 15g	Aldicarb	1260.00	lbs	COC
9779	255		Atrazine 4l	Atrazine	150.00	gal	COC
19713	76		Atrazine 90DF	Atrazine	700.00	lbs	COC
34704	69		Atrazine 4l	Atrazine	60.80	gal	COC
19713	11		Atrazine 4l	Atrazine	284.00	gal	COC
100	710		Bicep li	Atrazine	47.50	gal	COC
279	2876		Furadan 4f Insecticide/Nematicide	Carbofuran	11.25	gal	COC
62719	34		Lorsban 15g	Chlorpyrifos	518.00	lbs	COC
352	470		Bladex 4l	Cyanazine	30.00	gal	COC
1812	366		Cy-pro 4l	Cyanazine	2.00	gal	COC
3125	351		Baythroid 2 Em Pyrethroid Insecticide	Cyfluthrin	0.21	gal	COC
10182	434		Warrior T	Cyhalothrin	13.02	gal	COC
55947	1		Banvel	Dicamba, DMA Salt	10.00	gal	COC
7969	137		Clarity Herbicide	Dicamba, DGA Salt	13.08	gal	COC
51036	289		Dicamba DMA 4# AG	Dicamba, DMA Salt	101.00	gal	COC
524	475		Mon-65005 Herbicide	Glyphosate, Isopropylamine Salt	25.00	gal	COC
100	711		Dual li	Metolachlor	30.25	gal	COC
10182	258		Devinol 50-df	Napropamide	640.00	lbs	COC
241	337		Prowl 3.3 Ec	Pendimethalin	140.00	gal	COC
1812	274		Cotton Pro	Prometryn	140.00	gal	COC

EPA1	EPA2	EPA3	Brand	Active Ingredient	Total Chemical	Units	County
707	159		Kerb 50w	Pronamide	582.00	lbs	COC
62719	250		Treflan Hfp	Trifluralin	100.60	gal	COC
228	145		Weedestroy AM-40 Amine Salt	2,4-d, DMA Salt	5.00	gal	GRA
34704	69		Atrazine 4l	Atrazine	145.00	gal	GRA
19713	11		Atrazine 4l	Atrazine	390.00	gal	GRA
19713	76		Atrazine 90DF	Atrazine	225.00	lbs	GRA
352	495		Bladex 90 DF	Cyanazine	225.00	lbs	GRA
51036	289		Dicamba Dma 4# AG	Dicamba, DMA Salt	1.00	gal	GRA
100	711		Dual II	Metolachlor	45.00	gal	GRA
10182	258		Devinol 50-DF	Napropamide	240.00	lbs	GRA
62719	32		Telone II	1,3-Dichloropropene	22719.75	gal	LAP
10163	200		Prefar 4-E	Bensulide	1045.11	gal	LAP
2935	366		Sevin 5	Carbaryl	1399.00	lbs	LAP
352	470		Bladex 4L	Cyanazine	190.00	gal	LAP
279	3027		Ammo 2.5 EC	Cypermethrin	10.50	gal	LAP
10182	199		Eptam 20-g	EPTC	1780.44	lbs	LAP
10182	220		Eptam 7-e	EPTC	98.73	gal	LAP
3125	422		Admire 2	Imidacloprid	197.74	gal	LAP
100	801		Ridomil Gold	Mefenoxam	42.22	gal	LAP
34704	769		Clean Crop Nemasol	Metam-NA	3115.00	gal	LAP
45728	16		Metam CLR 42%	Metam-NA	1188.00	gal	LAP
70166	6		Sectagon 42	Metam-NA	28254.00	gal	LAP
100	840		Zorial 5g	Norflurazon	24200.00	lbs	LAP
241	337		Prowl 3.3 EC	Pendimethalin	770.25	gal	LAP
241	257		Thimet 20-g	Phorate	8633.00	lbs	LAP

EPA1	EPA2	EPA3	Brand	Active Ingredient	Total Chemical	Units	County
1812	274		Cotton Pro	Prometryn	335.31	gal	LAP
4581	322		Topsin - M	Thiophanate - Methyl	28.00	lbs	LAP
62719	250		Treflan HFP	Trifluralin	77.64	gal	LAP
10163	120		Trifluralin 10g	Trifluralin	39360.00	lbs	LAP
62719	32		Telone II	1,3-Dichloropropene	63775.90	gal	MAR
59639	86		Orthene 90 WSP	Acephate	100.00	lbs	MAR
264	330		Temik 15g	Aldicarb	17433.00	lbs	MAR
19713	11		Atrazine 4L	Atrazine	42.50	gal	MAR
10163	200		Prefar 4-E	Bensulide	259.67	gal	MAR
3125	282		DEF 6 Emulsifiable Defoliant	Butifos (Def)	140.00	gal	MAR
34704	483		Carbaryl Bait	Carbaryl	1550.00	lbs	MAR
2935	366		Sevin 5	Carbaryl	3909.26	lbs	MAR
352	470		Bladex 4L	Cyanazine	205.75	gal	MAR
10182	434		Warrior T	Cyhalothrin	2.75	gal	MAR
7969	131		Banvel Herbicide	Dicamba, DMA Salt	5.00	gal	MAR
1812	257		Direx 4L	Diuron	709.01	gal	MAR
10182	220		Eptam 7-E	EPTC	70.88	gal	MAR
10182	199		Eptam 20-g	EPTC	400.00	lbs	MAR
10182	223		Eradicane	EPTC	197.00	gal	MAR
3125	283		Nemacur 3	Fenamiphos	115.00	gal	MAR
524	475		Mon-65005 Herbicide	Glyphosate, Isopropylamine Salt	341.95	gal	MAR
241	350		Pursuit DG	Imazethapyr	27.14	lbs	MAR
3125	422		Admire 2	Imidacloprid	106.35	gal	MAR
100	801		Ridomil Gold	Mefenoxam	25.38	gal	MAR
7969	173		Pix Plus Plant Regulator	Mepiquat Chloride	5.00	gal	MAR

EPA1	EPA2	EPA3	Brand	Active Ingredient	Total Chemical	Units	County
70166	6		Sectagon 42	Metam-NA	5913.60	gal	MAR
4581	292		Penncap - M	Methyl Parathion	6.00	gal	MAR
3125	325		Sencor 75	Metribuzin	775.50	lbs	MAR
55947	78		Solicam DF Herbicide	Norflurazon	130.00	lbs	MAR
707	243		Goal T/O-2XL	Oxyfluorfen	170.97	gal	MAR
241	337		Prowl 3.3 EC	Pendimethalin	5435.58	gal	MAR
62719	31		Tordon 101R	Picloram, Triisopropanolamine Salt and 2,4-D Triisopropanolamine Salt	5300.00	lbs	MAR
100	620		Caparol	Prometryn	357.19	gal	MAR
1812	274		Cotton Pro	Prometryn	956.51	gal	MAR
34704	692		Prometryn 4L	Prometryn	282.50	gal	MAR
10163	94		Prometryn 4-L	Prometryn	35.00	gal	MAR
9779	297		Prometryne 4L	Prometryn	83.00	gal	MAR
45639	89		Dropp 50WP	Thidiazuron	25.00	lbs	MAR
34704	792		Clean Crop Trifluralin	Trifluralin	184.25	gal	MAR
62719	131		Treflan TR-10	Trifluralin	85917.70	lbs	MAR
1471	143		Treflan TR-10	Trifluralin	5600.00	lbs	MAR
62719	250		Treflan HFP	Trifluralin	232.77	gal	MAR
9779	303		Trifluralin 4EC	Trifluralin	20.00	gal	MAR
10163	120		Trifluralin 10g	Trifluralin	26840.00	lbs	MAR
34704	790		Trifluralin 10g	Trifluralin	6900.00	lbs	MAR
1812	353		Trillin 5	Trifluralin	125.86	gal	MAR
1812	328		Trillin 10g	Trifluralin	1040.00	lbs	MAR
241	337		Prowl 3.3 EC	Pendimethalin	36.50	gal	MOH
34704	692		Prometryn 4L	Prometryn	39.00	gal	MOH

EPA1	EPA2	EPA3	Brand	Active Ingredient	Total Chemical	Units	County
34704	792		Clean Crop Trifluralin	Trifluralin	1.83	gal	MOH
34704	790		Trifluralin 10g	Trifluralin	1950.00	lbs	MOH
9779	303		Trifluralin 4EC	Trifluralin	3.50	gal	MOH
264	330		Temik 15g	Aldicarb	612.00	lbs	PIM
10163	200		Prefar 4-E	Bensulide	31.25	gal	PIM
1812	366		Cy-pro 4L	Cyanazine	15.00	gal	PIM
241	337		Prowl 3.3 EC	Pendimethalin	190.75	gal	PIM
100	620		Caparol	Prometryn	268.75	gal	PIM
1812	274		Cotton Pro	Prometryn	140.60	gal	PIM
34704	792		Clean Crop Trifluralin	Trifluralin	74.75	gal	PIM
62719	250		Treflan HFP	Trifluralin	12.50	gal	PIM
62719	131		Treflan TR-10	Trifluralin	600.00	lbs	PIM
1812	355		Trillin	Trifluralin	4.13	gal	PIM
264	330		Temik 15g	Aldicarb	3816.00	lbs	PIN
19713	11		Atrazine 4L	Atrazine	25.00	gal	PIN
55638	8		Cutlass	Bacillus Thuringiensis - Kurstaki	12.00	lbs	PIN
34704	746		Balan DF	Benefin	174.64	lbs	PIN
10163	200		Prefar 4-E	Bensulide	4.25	gal	PIN
264	437		Buctril Herbicide	Bromoxynil Octanoate	8.50	gal	PIN
264	540		Buctril 4EC	Bromoxynil Octanoate & Heptano	9.75	gal	PIN
51036	248		Sutan+ 6.7E	Butylate	84.50	gal	PIN
2935	366		Sevin 5	Carbaryl	400.00	lbs	PIN
62719	220		Lorsban-4E	Chlorpyrifos	7.50	gal	PIN
352	470		Bladex 4L	Cyanazine	153.75	gal	PIN

EPA1	EPA2	EPA3	Brand	Active Ingredient	Total Chemical	Units	County
1812	366		Cy-pro 4L	Cyanazine	442.82	gal	PIN
10182	96		Karate	Cyhalothrin	0.18	gal	PIN
10182	434		Warrior T	Cyhalothrin	14.34	gal	PIN
51036	289		Dicamba DMA 4# AG	Dicamba, Dma Salt	2.50	gal	PIN
34704	207		Clean Crop Dimethoate 400	Dimethoate	10.00	gal	PIN
1812	257		Direx 4L	Diuron	705.20	gal	PIN
352	508		Karmex DF	Diuron	1716.00	lbs	PIN
10182	199		Eptam 20-g	EPTC	16620.00	lbs	PIN
10182	220		Eptam 7-E	EPTC	127.50	gal	PIN
100	642		Cotoran 4L	Fluometuron	19.50	gal	PIN
524	475		Mon-65005 Herbicide	Glyphosate, Isopropylamine Salt	70.00	gal	PIN
3125	422		Admire 2	Imidacloprid	8.00	gal	PIN
62719	13	34704	Mcp 4 Amine	MCPA, DMA Salt	2.50	gal	PIN
7969	173		Pix Plus Plant Regulator	Mepiquat Chloride	1.00	gal	PIN
10182	150		Vapam Soil Fumigant	Metam-NA	300.00	gal	PIN
100	597		Dual 8E Herbicide	Metolachlor	12.50	gal	PIN
3125	325		Sencor 75	Metribuzin	25.50	lbs	PIN
50534	6		Bueno 6	MSMA	203.00	gal	PIN
55947	77		Zorial Rapid 80	Norflurazon	70.00	lbs	PIN
100	848		Zorial Rapid 80	Norflurazon	45.00	lbs	PIN
400	402		Terraclor 10%	PCNB	18100.00	lbs	PIN
241	337		Prowl 3.3 EC	Pendimethalin	1943.35	gal	PIN
100	620		Caparol	Prometryn	159.50	gal	PIN
1812	274		Cotton Pro	Prometryn	2276.70	gal	PIN
34704	692		Prometryn 4l	Prometryn	365.90	gal	PIN

EPA1	EPA2	EPA3	Brand	Active Ingredient	Total Chemical	Units	County
707	159		Kerb 50W	Pronamide	3.00	lbs	PIN
352	576		Staple	Pyriithiobac-sodium	3.22	lbs	PIN
49517	3		Poly - Foliant 5	Sodium Chlorate	734.00	gal	PIN
34704	792		Clean Crop Trifluralin	Trifluralin	371.50	gal	PIN
62719	131		Treflan TR-10	Trifluralin	57096.00	lbs	PIN
62719	250		Treflan HFP	Trifluralin	459.00	gal	PIN
1812	355		Trillin	Trifluralin	585.38	gal	PIN
7407	707		*	*	3.12	lbs	YUM
59639	26		Orthene 75S	Acephate	25.00	lbs	YUM
59639	89		Orthene 75 WSP	Acephate	535.00	lbs	YUM
100	497		Aatrex 4L Herbicide	Atrazine	5.00	gal	YUM
34704	746		Balan DF	Benefin	18480.35	lbs	YUM
10163	200		Prefar 4-E	Bensulide	4801.30	gal	YUM
264	437		Buctril Herbicide	Bromoxynil Octanoate	74.71	gal	YUM
352	470		Bladex 4L	Cyanazine	400.00	gal	YUM
1812	366		Cy-pro 4L	Cyanazine	21.00	gal	YUM
10182	434		Warrior T	Cyhalothrin	6.31	gal	YUM
50534	1		Dacthal W-75	Dcpa	10486.07	lbs	YUM
10163	104		Diazinon 14g	Diazinon	21924.88	lbs	YUM
9779	210		Diazinon 4ag	Diazinon	3395.76	gal	YUM
10163	100		Diazinon 4E	Diazinon	83.04	gal	YUM
45639	173		Hoelon 3EC Herbicide	Diclofop-methyl	34.91	gal	YUM
45639	54		Antor 4ES	Diethathyl Ethyl	9.21	gal	YUM
3125	172		Di-syston 15%	Disulfoton	200.00	lbs	YUM
45639	161		Ginstar EC	Diuron + Thidiazuron	4.00	gal	YUM

EPA1	EPA2	EPA3	Brand	Active Ingredient	Total Chemical	Units	County
10182	199		Eptam 20-g	EPTC	1200.00	lbs	YUM
10182	220		Eptam 7-E	EPTC	1123.72	gal	YUM
10182	367		Fusilade DX	Fluazifop-p-butyl	1.74	gal	YUM
524	445		Honcho	Glyphosate, Isopropylamine Salt	573.15	gal	YUM
524	475		Mon-65005 Herbicide	Glyphosate, Isopropylamine Salt	72.58	gal	YUM
3125	422		Admire 2	Imidacloprid	787.09	gal	YUM
264	482		Roval 4	Iprodione	218.50	gal	YUM
1812	251		Manex Fungicide	Maneb	15.00	gal	YUM
228	143		MCPA - 4 Amine	MCPA, DMA Salt	53.21	gal	YUM
11685	19		Rhomene Mcpa Amine Herbicide	MCPA, DMA Salt	53.50	gal	YUM
100	801		Ridomil Gold	Mefenoxam	4.59	gal	YUM
50534	188		Mepichlor 4.2%	Mepiquat Chloride	30.00	gal	YUM
7969	52		Pix Plant Regulator	Mepiquat Chloride	2.33	gal	YUM
34704	769		Clean Crop Nemasol	Metam-NA	2365.00	gal	YUM
5481	423		Metam 426	Metam-NA	4724.00	gal	YUM
3125	280		Monitor 4	Methamidophos	45.00	gal	YUM
352	342		Lannate	Methomyl	154.21	lbs	YUM
100	816		Dual Magnum Herbicide	Metolachlor	26.00	gal	YUM
3125	325		Sencor 75	Metribuzin	74.42	lbs	YUM
707	243		Goal T/O-2XL	Oxyfluorfen	27.56	gal	YUM
400	411		Terrachlor 6.5%	Pcnb + Disulfoton	325.00	lbs	YUM
241	337		Prowl 3.3 EC	Pendimethalin	348.54	gal	YUM
10182	18		Ambush Insecticide	Permethrin, Mixed CIS, Trans	17.50	gal	YUM
279	3014		Pounce 3.2 EC	Permethrin	73.88	gal	YUM
241	257		Thimet 20-g	Phorate	2230.17	lbs	YUM

EPA1	EPA2	EPA3	Brand	Active Ingredient	Total Chemical	Units	County
1812	274		Cotton Pro	Prometryn	12.50	gal	YUM
34704	692		Prometryn 4L	Prometryn	25.00	gal	YUM
707	159		Kerb 50W	Pronamide	27979.40	lbs	YUM
7969	58		BASF POAST Herbicide	Sethoxydim	3.44	gal	YUM
100	603		Princep Caliber 90	Simazine	332.50	lbs	YUM
62719	292		Success	Spinosad	5.20	gal	YUM
707	238		Confirm	Tebufenozide	71.02	gal	YUM
62719	250		Treflan HFP	Trifluralin	1.65	gal	YUM
62719	118		Treflan 5	Trifluralin	2.85	gal	YUM
62719	131		Treflan TR-10	Trifluralin	7740.00	lbs	YUM
10163	99		Trifluralin 5	Trifluralin	18.13	gal	YUM
10163	101		Trifluralin 4	Trifluralin	234.75	gal	YUM
10163	120		Trifluralin 10g	Trifluralin	4250.00	lbs	YUM
1812	353		Trillin 5	Trifluralin	47.92	gal	YUM

* Listed EPA numbers that do not have a known brand name or active ingredient.

COC = Coconino GRA= Granam GRE = Greelee LAP = La Paz MAR = Maricopa MOH = Mohave
PIM = Pima PIN = Pinal SAN = Santa Cruz YUM = Yuma

Table V.6. Reported Pesticide Sales Outside Arizona (Jan. 1, 1999 to Dec. 31, 1999)
No reported sales outside Arizona (Jan. 1, 1999 to Dec. 31, 1999).

Table V.7. Reported Pesticide Sales Within Arizona (Jan. 1, 1999 to Dec. 31, 1999)

EPA1	EPA2	EPA3	Brand	Active Ingredient	Total Chemical	Units
7407	707		*	*	3.12	lbs
62719	32		Telone II	1,3-dichloropropene	86495.65	gal
228	145		Weedestroy Am-40 Amine Salt	2,4-d, DMA Salt	102.50	gal
59639	89		Orthene 75 WSP	Acephate	635.00	lbs
59639	26		Orthene 75s	Acephate	25.00	lbs
59639	75		Payload 15 Granular	Acephate	733.00	lbs
264	330		Temik 15g	Aldicarb	23121.00	lbs
100	497		Aatrex 4l Herbicide	Atrazine	5.00	gal
9779	255		Atrazine 4l	Atrazine	150.00	gal
19713	76		Atrazine 90df	Atrazine	925.00	lbs
34704	69		Atrazine 4l	Atrazine	205.80	gal
19713	11		Atrazine 4l	Atrazine	741.50	gal
100	710		Bicep II	Atrazine	47.50	gal
55638	8		Cutlass	Bacillus Thuringiensis - Kurstaki	12.00	lbs
34704	746		Balan DF	Benefin	18654.99	lbs
10163	200		Prefar 4-e	Bensulide	6141.58	gal
264	540		Buctril 4ec	Bromoxynil Octanoate and Heptano	9.75	gal
264	437		Buctril Herbicide	Bromoxynil Octanoate	83.21	gal
3125	282		Def 6 Emulsifiable Defoliant	Butifos (DEF)	140.00	gal
51036	248		Sutan+ 6.7e	Butylate	84.50	gal
34704	483		Carbaryl Bait	Carbaryl	1550.00	lbs
2935	366		Sevin 5	Carbaryl	5708.26	lbs
279	2876		Furadan 4f Insecticide/nematicide	Carbofuran	11.25	gal
62719	220		Lorsban-4e	Chlorpyrifos	7.50	gal

EPA1	EPA2	EPA3	Brand	Active Ingredient	Total Chemical	Units
62719	34		Lorsban 15g	Chlorpyrifos	518.00	lbs
352	470		Bladex 4l	Cyanazine	979.50	gal
352	495		Bladex 90 DF	Cyanazine	225.00	lbs
1812	366		Cy-pro 4l	Cyanazine	480.82	gal
3125	351		Baythroid 2 EM Pyrethroid	Cyfluthrin	0.21	gal
10182	96		Karate	Cyhalothrin	0.18	gal
10182	434		Warrior T	Cyhalothrin	36.42	gal
279	3027		Ammo 2.5 EC	Cypermethrin	10.50	gal
50534	1		Dacthal W-75	DCPA	10486.07	lbs
10163	100		Diazinon 4E	Diazinon	83.04	gal
10163	104		Diazinon 14g	Diazinon	21924.88	lbs
9779	210		Diazinon 4ag	Diazinon	3395.76	gal
7969	131		Banvel Herbicide	Dicamba, DMA Salt	5.00	gal
55947	1		Banvel	Dicamba, DMA Salt	10.00	gal
7969	137		Clarity Herbicide	Dicamba, DGA Salt	13.08	gal
51036	289		Dicamba DMA 4# Ag	Dicamba, DMA Salt	104.50	gal
45639	173		Hoelon 3EC Herbicide	Diclofop-methyl	34.91	gal
45639	54		Antor 4ES	Diethathyl Ethyl	9.21	gal
34704	207		Clean Crop Dimethoate 400	Dimethoate	10.00	gal
3125	172		Di-syston 15%	Disulfoton	200.00	lbs
1812	257		Direx 4l	Diuron	1414.21	gal
45639	161		Ginstar EC	Diuron + Thidiazuron	4.00	gal
352	508		Karmex DF	Diuron	1716.00	lbs
10182	220		Eptam 7-e	EPTC	1420.83	gal

EPA1	EPA2	EPA3	Brand	Active Ingredient	Total Chemical	Units
10182	199		Eptam 20-g	EPTC	20000.44	lbs
10182	223		Eradicane	EPTC	197.00	gal
3125	283		Nemacur 3	Fenamiphos	115.00	gal
10182	367		Fusilade DX	Fluazifop-p-butyl	1.74	gal
100	642		Cotoran 4l	Fluometuron	19.50	gal
524	445		Honcho	Glyphosate, isopropylamine Salt	573.15	gal
524	475		Mon-65005 Herbicide	Glyphosate, isopropylamine Salt	509.53	gal
241	350		Pursuit DG	Imazethapyr	27.14	lbs
3125	422		Admire 2	Imidacloprid	1099.18	gal
264	482		Roval 4	Iprodione	218.50	gal
1812	251		Manex Fungicide	Maneb	15.00	gal
62719	13	34704	MCP 4 Amine	MCPA , DMA Salt	2.50	gal
228	143		MCPA - 4 Amine	MCPA, DMA Salt	53.21	gal
11685	19		Rhomene MCPA Amine Herbicide	MCPA, DMA Salt	53.50	gal
100	801		Ridomil Gold	Mefenoxam	72.19	gal
50534	188		Mepichlor 4.2%	Mepiquat Chloride	30.00	gal
7969	173		Pix plus Plant Regulator	Mepiquat Chloride	6.00	gal
7969	52		Pix Plant Regulator	Mepiquat Chloride	2.33	gal
34704	769		Clean Crop Nemasol	Metam-NA	5480.00	gal
45728	16		Metam CLR 42%	Metam-NA	1188.00	gal
5481	423		Metam 426	Metam-NA	4724.00	gal
70166	6		Sectagon 42	Metam-NA	34167.60	gal
10182	150		Vapam Soil Fumigant	Metam-NA	300.00	gal
3125	280		Monitor 4	Methamidophos	45.00	gal

EPA1	EPA2	EPA3	Brand	Active Ingredient	Total Chemical	Units
352	342		Lannate	Methomyl	154.21	lbs
4581	292		Penncap - M	Methyl Parathion	6.00	gal
100	711		Dual II	Metolachlor	75.25	gal
100	816		Dual Magnum Herbicide	Metolachlor	26.00	gal
100	597		Dual 8E Herbicide	Metolachlor	12.50	gal
3125	325		Sencor 75	Metribuzin	875.42	lbs
50534	6		Bueno 6	MSMA	203.00	gal
10182	258		Devinol 50-df	Napropamide	880.00	lbs
55947	78		Solicam DF Herbicide	Norflurazon	130.00	lbs
100	840		Zorial 5g	Norflurazon	24200.00	lbs
55947	77		Zorial Rapid 80	Norflurazon	70.00	lbs
100	848		Zorial Rapid 80	Norflurazon	45.00	lbs
707	243		Goal T/O-2xl	Oxyfluorfen	198.53	gal
400	411		Terraclor 6.5%	PCNB + Disulfoton	325.00	lbs
400	402		Terraclor 10%	PCNB	18100.00	lbs
241	337		Prowl 3.3 EC	Pendimethalin	8864.97	gal
10182	18		Ambush Insecticide	Permethrin, Mixed Cis,trans	17.50	gal
279	3014		Pounce 3.2 EC	Permethrin	73.88	gal
241	257		Thimet 20-g	Phorate	10863.17	lbs
62719	31		Tordon 101R	Picloram, Triisopropanolamine Salt & 2,4-d Triisopropanolamine Salt	5300.00	lbs
100	620		Caparol	Prometryn	785.44	gal
1812	274		Cotton Pro	Prometryn	3861.62	gal
10163	94		Prometryn 4-l	Prometryn	35.00	gal
34704	692		Prometryn 4l	Prometryn	712.40	gal

EPA1	EPA2	EPA3	Brand	Active Ingredient	Total Chemical	Units
9779	297		Prometryne 4l	Prometryn	83.00	gal
707	159		KERB 50W	Pronamide	28564.40	lbs
352	576		Staple	Pyrrithiobac-sodium	3.22	lbs
7969	58		BASF POAST Herbicide	Sethoxydim	3.44	gal
100	603		Princep Caliber 90	Simazine	332.50	lbs
49517	3		Poly - Foliant 5	Sodium Chlorate	734.00	gal
62719	292		Success	Spinosad	5.20	gal
707	238		Confirm	Tebufenozide	71.02	gal
45639	89		Dropp 50WP	Thidiazuron	25.00	lbs
4581	322		Topsin - M	Thiophanate - Methyl	28.00	lbs
34704	792		Clean Crop Trifluralin	Trifluralin	632.33	gal
62719	250		Treflan HFP	Trifluralin	884.16	gal
62719	131		Treflan TR-10	Trifluralin	151353.70	lbs
62719	118		Treflan 5	Trifluralin	2.85	gal
1471	143		Treflan TR-10	Trifluralin	5600.00	lbs
34704	790		Trifluralin 10g	Trifluralin	8850.00	lbs
10163	99		Trifluralin 5	Trifluralin	18.13	gal
9779	303		Trifluralin 4EC	Trifluralin	23.50	gal
10163	101		Trifluralin 4	Trifluralin	234.75	gal
10163	120		Trifluralin 10g	Trifluralin	70450.00	lbs
1812	353		Trillin 5	Trifluralin	173.78	gal
1812	328		Trillin 10g	Trifluralin	1040.00	lbs
1812	355		Trillin	Trifluralin	589.51	gal

* Listed EPA numbers that do not have a known brand name or active ingredient.