

Pesticide Contamination Prevention Program Report

A.R.S. §49-303.B

The Arizona Pesticide Contamination Prevention Program was established by the Environmental Quality Act of 1987. The program's major objective is to prevent or eliminate groundwater contamination by agricultural pesticide use and is composed of the following four major components:

1. Product chemistry and environmental fate review - prior to registering an agricultural pesticide, applicants shall submit product chemistry and environmental fate data of the associated active ingredient to ADEQ for review and approval. The information is used to generate the Groundwater Protection List (GWPL).
2. Groundwater Protection List - the GWPL is a list of agricultural pesticide active ingredients that have the potential to contaminate the groundwater.
3. Monitoring - ADEQ is to monitor the presence of agricultural pesticide active ingredients on the GWPL in the groundwater and soil statewide.
4. Compilation of data - ADEQ collects and reports sales and use information on soil applied agricultural pesticides containing active ingredients that fail the Specific Numeric Values (SNVs).

This report is in fulfillment of a final requirement pursuant to A.R.S. §49-303.B that ADEQ shall report the following information to the legislature annually:

1. List of agricultural pesticide active ingredients for which there is a groundwater protection data gap
2. A list of each agricultural pesticide containing an active ingredient that fail the SNVs presented in Table 1.
3. The sales and use information on soil applied agricultural pesticides containing active ingredients that fail the SNVs presented in Table 1 in the state during the most recent year and where the pesticide was used.

Groundwater Protection Data Gap

Pursuant to A.R.S. §49-302, prior to registering an agricultural pesticide in the state, applicants shall submit the product chemistry and environmental fate data of the associated active ingredients to ADEQ for review and approval based on its validity, completeness and adequacy. An agricultural pesticide cannot be registered in the

state without completing these processes, otherwise a groundwater protection data gap will exist for such pesticide.

Since the implementation of the program in 1987, a total of 320 agricultural pesticide active ingredients have completed the above review and approval processes.

Groundwater Protection List

After ADEQ reviews and approves the product chemistry and environmental fate data of the agricultural pesticide active ingredient, it is compared with specific numeric values (SNVs), which are criteria adopted by rule. The SNVs, found at A.A.C. R18-6-103, are based on the Environmental Protection Agency's (EPA) criteria for identifying pesticide active ingredients that, based on mobility and persistence factors, have the potential to leach to groundwater. The SNVs are presented in Table 1.

<i>Table 1: Specific Numeric Values</i>	
Property	SNVs
Mobility Factors	
Water Solubility	> 30 parts per million
Soil Adsorption Coefficient	< 5 milliliters per gram
Persistence Factor	
Hydrolysis (half-life)	> 25 weeks
Aerobic Soil Metabolism (half-life)	> 3 weeks
Anaerobic Soil Metabolism (half-life)	> 3 weeks
Field Dissipation (half-life)	> 3 weeks

Agricultural pesticide active ingredients that fail at least one SNVs in both of the mobility factors AND persistence factors will be placed on the GWPL. The current GWPL, which is composed of 152 agricultural pesticide active ingredients, was adopted by rule in 1992 (A.A.C. R18-6-301) based on the SNVs in Table 1 and the agricultural pesticide registrations at the time. Each year a draft GWPL is established but does not become effective unless adopted by rule. The FY 2003 draft GWPL, which is presented in Table 2, contains 261 agricultural pesticide active ingredients and is based on the current agricultural pesticides registration requirements.

<i>Table 2: Draft Groundwater Protection List</i>	
C_CAS	C_Name
542-75-6	1,3-Dichloropropene
1928-43-4	2,4-D 2-Ethylhexyl Ester
94-75-7	2,4-D Acid
33333-3333	2,4-D Alkanol*Amine Salts of Ethanol and Isopropanol
137335-70-7	2,4-D Alkyl*Amine *(as in tall oil fatty acids)
1929-73-3	2,4-D Butoxyethyl Ester
94-80-4	2,4-D Butyl Ester
2212-54-6	2,4-D DDA (Dodecyclamine Salt)
5742-19-8	2,4-D Diethanolamine Salt
20940-37-8	2,4-D Diethylamine Salt
2008-39-1	2,4-D Dimethylamine Salt
533-23-3	2,4-D Ethylhexyl Ester
1713-15-1	2,4-D Isobutyl Ester
53404-37-8	2,4-D Isooctyl (2-ethyl-4-methylpentyl)
5742-17-6	2,4-D Isopropylamine Salt
25168-26-7	2,4-D Isooctyl Ester
94-11-1	2,4-D Isopropyl Ester of
2212-59-1	2,4-D N-Oleyl-1,3-Propylenediamine Salt
28685-18-9	2,4-D Tda (Tetradecyclamine)
2646-78-8	2,4-D Triethylamine Salt
32341-80-3	2,4-D Triisopropanolamine Salt
32357-46-3	2,4-DB, Butoxyethyl Ester
2758-42-1	2,4-DB, DMA Salt
16165-67-0	2,4-DP-P
30560-19-1	Acephate
135410-20-7	Acetamiprid
135158-54-2	Acibenzolar-S-Methyl
107-02-8	Acrolein
15972-60-8	Alachlor
116-06-3	Aldicarb
834-12-8	Ametryn
61-82-5	Amitrole
101-05-3	Anilazine
7778-39-4	Arsenic Acid
2302-17-2	Asulam, Sodium Salt
1912-24-9	Atrazine
86-50-0	Azinphos-Methyl
131860-33-8	Azoxystrobin
22781-23-3	Bendiocarb
1861-40-1	Benefin

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C_CAS	C_Name
17804-35-2	Benomyl
741-58-2	Bensulide
149877-41-8	Bifenazate
83322-02-5	Bifenthrin (Cis)
82657-04-3	Bifenthrin (Trans)
314-40-9	Bromacil
53404-19-6	Bromacil, Lithum Salt
78-48-8	Butifos (Def)
2008-41-5	Butylate
75-60-5	Cacodylic Acid (Dimethylarsinic Acid)
124-65-2	Cacodylic Acid, Sodium Salt
133-06-2	Captan
63-25-2	Carbaryl
1563-66-2	Carbofuran
5234-68-4	Carboxin
128639-02-1	Carfentrazone-Ethyl
76-06-2	Chloropicrin
1897-45-6	Chlorothalonil
2921-88-2	Chlorpyrifos
64902-72-3	Chlorsulfuron
99129-21-2	Clethodim
1702-17-6	Clopyralid
16828-95-8	Copper Ammonia Complex
33113-08-5	Copper Ammonium Carbonate
12069-69-1	Copper Carbonate
14215-52-2	Copper Ethanolamine Complex
13426-91-0	Copper Ethylenediamine
9007-39-0	Copper Salts of Fatty & Rosin Acids
1344-73-6	Copper Sulfate, Basic
1332-14-5	Copper Sulfate, Basic (2+)
82027-59-6	Copper Triethanolamine Complex
20427-59-2	Copper Hydroxide
7758-99-8	Copper Sulfate
420-04-2	Cyanamide
21725-46-2	Cyanazine
1134-23-2	Cycloate
68359-37-5	Cyfluthrin
52315-07-8	Cypermethrin
66215-27-8	Cyromazine
1861-32-1	DCPA (Dimethyl Tetrachloroterephtholate)

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C_CAS	C_Name
52918-63-5	Deltamethrin
13684-56-5	Desmedipham
333-41-5	Diazinon
1918-00-9	Dicamba
25059-78-3	Dicamba, DEA Salt
104040-79-1	Dicamba, DGA Salt
2300-66-5	Dicamba, DMA Salt
10007-85-9	Dicamba, Potassium Salt
1982-69-0	Dicamba, Sodium Salt
1194-65-6	Dichlobenil
99-30-9	Dicloran
51338-27-3	Diclofop-Methyl
115-32-2	Dicofol
2227-17-0	Dienochlor (Decachlorobis)
38727-55-8	Diethathyl Ethyl
43222-48-6	Difenzoquat Methyl Sulfate
35367-38-5	Diflubenzuron
109293-97-2	Diflufenzopyr
60-51-5	Dimethoate
110488-70-5	Dimethomorph
957-51-7	Diphenamid
298-04-4	Disulfoton
85-00-7	Diquat Dibromide
97886-45-8	Dithiopyr
330-54-1	Diuron
79277-27-3	DPX-M6316
144-21-8	DSMA (Disodium Methanearsonate)
115-29-7	Endosulfan
145-73-3	Endothall
2164-07-0	Endothall, Dipotassium Salt of
129-67-9	Endothall, Disodium Salt of
759-94-4	EPTC
66230-04-4	Esfenvalerate
55283-68-6	Ethalfuralin
16672-87-0	Ethephon
26225-79-6	Ethofumesate
563-12-2	Ethion
13194-48-4	Ethoprop
56-38-2	Ethyl Parathion
2593-15-9	Etridiazole

<i>Table 2: Draft Groundwater Protection List</i>	
C_CAS	C_Name
22224-92-6	Fenamiphos
60168-88-9	Fenarimol
39515-41-8	Fenpropathrin
51630-58-1	Fenvalerate
69806-50-4	Fluazifop-Butyl
79241-46-6	Fluazifop-P or R -Butyl
70124-77-5	Flucythrinate
142459-58-3	Flufenacet (Thiafluamide)
2164-17-2	Fluometuron
59756-60-4	Fluridone
66332-96-5	Flutolanil
102851-06-9	Fluvalinate
944-22-9	Fonofos
23422-53-9	Formetanate Hydrochloride
25954-13-6	Fosamine Ammonium
39148-24-8	Fosetyl-Al
77182-82-2	Glufosinate-Ammonium
1071-83-6	Glyphosate (Group)
114370-14-8	Glyphosate Ammonium Salt
38641-94-0	Glyphosate, Isopropylamine Salt
70901-12-1	Glyphosate, Potassium Salt
112226-61-6	Halofenozide
100784-20-1	Halosulfuran-Methyl
13356-08-6	Hexakis (Fenbutatin Oxide)
51235-04-2	Hexazinone
173584-44-6	Indoxacarb (Carboxylate)
35554-44-0	Imazalil
81405-85-8	Imazamethabenz-Methyl (Meta)
81405-85-8	Imazamethabenz-Methyl (Para)
104098-48-8	Imazapic
81335-37-7	Imazaquin
81335-77-5	Imazethapyr
101917-66-2	Imazethapyr, Ammonium Salt
138261-41-3	Imidacloprid
144171-61-9	Indoxacarb
36734-19-7	Iprodione
25311-71-1	Isofenphos
42509-80-8	Isazophos
82558-50-7	Isoxaben
143390-89-0	Kresoxim Methyl

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C_CAS	C_Name
91465-08-6	Lambdacyhalothrin
58-89-9	Lindane
330-55-2	Linuron
128-58-3	MAA (Methanearsonic Acid)
121-75-5	Malathion
28282-15-2	Maleic Hydrazide, Potassium Salt
12427-38-2	Maneb
94-74-6	MCPA
2039-46-5	MCPA, DMA Salt
29450-45-1	MCPA, 2 Ethylhexyl Ester
26544-20-7	MCPA, Isooctyl Ester
3653-48-3	MCPA, Sodium Salt
16484-77-8	Mecoprop (P)
70630-17-0	Mefenoxam
24307-26-4	Mepiquat Chloride
245735-90-4	Mepiquat Pentaborate
57837-19-1	Metalaxyl
108-62-3	Metaldehyde
137-41-7	Metam-K (Potassium)
137-42-8	Metam-Na (Sodium)
10265-92-6	Methamidophos
2032-65-7	Methiocarb
16752-77-5	Methomyl
161050-58-4	Methoxyfenozide
298-00-0	Methyl Parathion
51218-45-2	Metolachlor
87392-12-9	Metolachlor - S
21087-64-9	Metribuzin
74223-64-6	Metsulfuron Methyl
7786-34-7	Mevinphos
6923-22-4	Monocrotophos
2163-80-6	Monosodium Methanearsonate (MSMA)
88671-89-0	Myclobutanil
15299-99-7	Napropamide
111991-09-04	Nicosulfuron
27314-13-2	Norflurazon
19044-88-3	Oryzalin
19666-30-6	Oxadiazon
23135-22-0	Oxamyl
301-12-2	Oxydemeton-Methyl

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C_CAS	C_Name
42874-03-3	Oxyfluorfen
1910-42-5	Paraquat Dichloride
1114-71-2	Pebulate
82-68-8	PCNB (Quintozene)
40487-42-1	Pendimethalin
52645-53-1	Permethrin
13684-63-4	Phenmedipham
2310-17-0	Phosalone
732-11-6	Phosmet
13171-21-6	Phosphamidon
1918-02-1	Picloram
26952-20-5	Picloram, Isooctyl Ester of
2545-60-0	Picloram, Potassium Salt
6753-47-5	Picloram, Triisopropanolamine Salt
51-03-6	Piperonyl Butoxide
29091-21-2	Prodiamine
41198-08-7	Profenofos
1610-78-0	Prometon
7287-19-6	Prometryn
23950-58-5	Pronamide
25606-41-1	Propamocarb
2312-35-8	Propargite
60207-90-1	Propiconazole
94125-34-5	Prosulfuron
123312-89-0	Pymetrozine
1698-60-8	Pyrazon (Chlordiazon)
8003-34-7	Pyrethrin
95737-68-1	Pyriproxyfen
123343-16-8	Pyrithiobac Sodium
84087-01-4	Quinclorac
74051-80-2	Sethoxydim
122-34-9	Simazine
50723-80-3	Sodium Bentazon
7775-09-9	Sodium Chlorate
74222-97-2	Sulfometuron-Methyl
81591-81-3	Sulfosate
35400-43-2	Sulprofos
112410-23-8	Tebufenozide
34014-18-1	Tebuthiuron
5902-51-2	Terbacil
13071-79-9	Terbufos

C_CAS	C_Name
886-50-0	Terbutryn
153719-23-4	Thiamethoxam
117718-60-2	Thiazopyr
51707-55-2	Thidiazuron
59669-26-0	Thiodicarb
23564-05-8	Thiophanate-Methyl
137-26-8	Thiram
87820-88-0	Tralkoxydim
2303-17-5	Triallate
43121-43-3	Triadimefon
52-68-6	Trichlorfon
55335-06-3	Triclopyr
64700-56-7	Triclopyr, Butoxyethyl Ester
57213-69-1	Triclopyr, Triethylamine Salt
141517-21-7	Trifloxystrobin
26644-46-2	Triforine
1582-09-8	Trifluralin
95266-40-3	Trinexapac-Ethyl
1929-77-7	Vernolate
50471-44-8	Vinclozolin

The GWPL provides information on pesticide active ingredients and where they have been applied. ADEQ then focuses its groundwater and soil monitoring activities on these areas. If these pesticide active ingredients are detected in the groundwater or soil as a result of agricultural activities, ADEQ may, depending on the detected level, require registrants to modify their application use patterns or cancel the registration to prevent further contamination.

Sales and Use Information on Agricultural Pesticides Containing Active Ingredients on the GWPL

State rules require a pesticide dealer to file quarterly reports on the quantity and date of sales of agricultural use pesticides on the Groundwater Protection List that are soil applied (A.A.C R18-6-303). Since this information can be obtained from the pesticide application report (Form 1080) that pesticide users must submit to the Arizona Department of Agriculture prior to use, ADEQ allows the pesticide sellers and users to use Form 1080 to fulfill the reporting requirement of sales and use of the agricultural pesticides in Arizona.

For the sale of agricultural pesticide to be used outside Arizona, sellers and users must submit the required information in ADEQ-designated form. If one has brought the pesticides from out of state and use them here, it would not be on the "Sale Report" but rather would be listed on the "Use Report". On the other hand, if one buys pesticides here in Arizona but use the product in New Mexico, it would be the "SALE" report, but not the "USE" report.

The sales and use information are presented in the following tables.

- Sales information on agricultural pesticides containing active ingredients failing the SNVs that were intended for soil application *outside* Arizona between Jan. 1, 2002 and Dec. 31, 2002 (Table 3)
- Sales information on agricultural pesticides containing active ingredients failing the SNVs that were intended for soil application *within* Arizona between Jan. 1, 2002 and Dec. 31, 2002 (Table 4)
- Use information on agricultural pesticides containing active ingredients failing the SNVs that were intended for soil application *within each county* in Arizona between Jan. 1, 2002 and Dec. 31, 2002 (Table 5)

A total of 106 soil-applied agricultural pesticides containing 61 different active ingredients that fail the SNVs were sold or used in Arizona between Jan. 1, 2002 and Dec. 31, 2002.

Table 3: Pesticides Sold Outside Arizona During Jan. 1, 2001 to Dec. 31, 2001

No reported sales outside Arizona during Jan. 1, 2002 to Dec. 31, 2002.

Table 4: Reported Sales in Arizona During Jan. 1, 2002 to Dec. 31, 2002

EPA 1	EPA 2	EPA 3	Brand	Active Ingredient	Total Chemical	Units
62719	32		Telone II	1,3 Dichloropropene	24,217	Gals
62719	321		Telone EC	1,3 Dichloropropene	43,470	Gals
42750	19		2,4-D Amine 4 Herbicide	2,4-D DMA Salt	17	Gals
9779	263		2,4-D Amine 4 Herbicide	2,4-D DMA Salt	30	Gals
56077	26		Butoxone 200	2,4-DB DMA Salt	24	Gals
59639	89		Orthene 75 WSP	Acephate	690	Lbs
264	330		Temik Brand 15 G Aldicarb Herbicide	Aldicarb	12,435	Lbs
100	497		Aatrex	Atrazine	4,520	Gals
19713	11		Drexel Atrazine 4 L Herbicide	Atrazine	41	Gals
34704	69		Atrazine 4 L Herbicide	Atrazine	8	Gals
34704	746		Balan DF Herbicide	Benefin	12,509	Lbs
352	564		Benlate	Benomyl	50	Lbs
10163	200		Prefar 4 E Selective Herbicide	Bensulide	5,362	Gals
73637	3	56077	Sultan + 6.7 E	Butylate	59	Gals
2935	366		Sevin 5 Bait	Carbaryl	3,572	Lbs
279	2876		Furadan 4 F	Carbofuran	128	Gals
279	3241		Aim EC Herbicide	Carfentrazone - Ethyl	4	Gals
58266	5	11220	Tri-Chlor EC Fumigant	Chloropicrin	103,606	Lbs
62719	220		Lorsban 4 F	Chloropyrifos	40	Gals
59639	3		Select 2 EC Herbicide	Clethodim	47	Gals
1812	366		Cy-Pro 4 L Herbicide	Cyanazine	671	Gals
3125	351		Baythroid 2 E Pyrethroid Insecticide	Cyfluthrin	2	Gals
279	3027		Ammo 2.5 EC Insecticide	Cypermethrin	1	Gals
279	3126		Mustang Insecticie	Cypermehtrin	242	Gals
5481	490		Dacthal W 75 Herbicide	DCPA	2,542	Lbs
10163	100		Gowan Diazinon 4 E	Diazinon	519	Gals
10163	104		Gowan Diazinon 14 G	Diazinon	382	Lbs
2935	408		Diazinon 14 G	Diazinon	648	Lbs
7969	137		Clarity Herbicide	Dicamba, DGA Salt	6	Gals
1812	257	ZA	Direx 4 L Herbicide	Diuron	593	Gals
1812	257	ZB	Karmex IWC 4 L	Diuron	593	Gals
264	634		Ginstar EC Cotton	Diuron + Thidiazuron	70	Gals

10182	199		Eptam 20 G Selective Herbicide	EPTC	4,590	Lbs
10182	220		Eptam 7 E Selective Herbicide	EPTC	28	Gals
352	515		Du Pont Asana XL Insecticide	Esfenvalerate	2	Gals
3125	283		Nemacur 3 E Systematic Insecticide- Nematicide	Fenamiphos	30	Gals
1812	439		Cotoran 4 C Herbicide	Fluometuron	8	Gals
524	445	ZE	Honcho Herbicide	Glyphosate, Isopropylamine	146	Gals
524	445	ZG	Rascal Herbicide	Glyphosate, Isopropylamine	146	Gals
524	445		Roundup Herbicide	Glyphosate, Isopropylamine	146	Gals
524	445	ZF	Roundup Original Herbicide	Glyphosate, Isopropylamine	146	Gals
524	475	ZD	Accord Site Prep Herbicide	Glyphosate, Isopropylamine	46	Gals
524	475	ZE	Roundup Orginal II CA Herbicie	Glyphosate, Isopropylamine	46	Gals
524	475	ZA	Roundup Pro Herbicide	Glyphosate, Isopropylamine	46	Gals
524	475	ZB	Roundup Ultra Herbicide	Glyphosate, Isopropylamine	46	Gals
524	475	ZC	Roundup W	Glyphosate, Isopropylamine	46	Gals
524	512		Roundup Ultramax Herbicide	Glyphosate, Isopropylamine	291	Gals
62719	322	ZD	Accord SP Herbicide	Glyphosate, Isopropylamine	156	Gals
62719	322		Glyphomax Plus	Glyphosate, Isopropylamine	156	Gals
62719	322		Glypro Plus	Glyphosate, Isopropylamine	156	Gals
62719	323		Glyphomax	Glyphosate, Isopropylamine	13	Gals
10182	449		Touchdown Herbicide	Glyphosate - Trimesium	18	Gals
241	310		Pursuit Herbicide	Imazethapyr	5	Gals
241	386		Pursuit WDG Herbicide Eco-Pak	Imazethapyr	12	Lbs
3125	422		Admire 2 F	Imidacloprid	1,008	Gals
352	597		Du Pont Avaunt Insecticide	Indoxacarb	4	Lbs
264	482		Rovral 4 F Fungicide	Iprodione	1,212	Gals
10182	434		Warrior/Karate Insecticide	Lambdacyhalothrin	24	Gals
5905	250		Fyfanon 8 E	Malathion	4	Gals
1812	251		Manex Fungicide Flowable With Zinc	Maneb	292	Gals
1812	251		Pentathlon Fungicide Flowable With Zinc	Maneb	292	Gals
100	801		Ridomil Gold EC Fungicide	Mefenoxam	600	Gals
55146	73		Ultra Flourish Agricultural Fungicide	Metalaxyl	6	Gals
5481	463		Vapam Soil Fumigant	Metam-Sodium	47,018	Gals
61842	6		Sectagon HL Fumigant Solution	Metam-Sodium	17,891	Gals
352	342		Du Pont Lannate SP Insecticide	Methomyl	218	Gals
62719	442		Intrepid 2 F	Methoxyfenozide	3	Gals
100	816		Dual Magnum Herbicide	Metolachlor	266	Gals
3125	325		Sencor 75 Turf Herbicide	Metribuzin	2,412	Gals
3125	314		Sencor 4 F Herbicide	Metribuzin	104	Lbs
50534	6	18102	Bueno 6	MSMA	6	Gals

100	848		Zorial Rapid 80 Herbicide	Norflurazon	1,505	Lbs
55947	77		Sandoz-Zorial Rapid 80 Herbicide	Norflurazon	730	Lbs
707	243		Goal 2 XI Herbicide	Oxyfluorfen	136	Gals
66222	28		Galigan 2 E Herbicide	Oxyfluorfen	30	Gals
100	1074		Gramoxone Maximum	Paraquat Dichloride	43	Gals
241	337		Prowl 3.3 EC Herbicide	Pendimethalin	4,719	Gals
68156	6	62719	Pendimax 3.3 EC Herbicide	Pendimethalin	216	Gals
279	3014		Pounce 3.2 EC Insecticide	Permethrin	13	Gals
279	3051		Pounce 25 WP Insecticide	Permethrin	22	Lbs
100	620		Caparol 4 L Herbicide	Prometryn	1,220	Gals
1812	274		Cotton-Pro Herbicide	Prometryn	2,701	Gals
34704	692		Prometryn 4L Herbicide	Prometryn	184	Gals
62719	397		Kerb 50 W/WSP Herbicide	Pronamide	1,731	Lbs
707	159		Kerb 50 W/WSP Herbicide	Pronamide	36,354	Lbs
352	576		Stable Herbicide	Pyriithiobac-Sodium	11	Lbs
7969	58	51036	Poast	Sethoxydim	9	Gals
100	603		Princep Caliber 90 Herbicide	Simazine	210	Lbs
100	603		Princep DF Herbicide	Simazine	105	Lbs
19713	60		Drexel Simazine 4 L Herbicide	Simazine	250	Gals
707	238		Confirm 2 F Agricultural Insecticide	Tebufenozide	2	Gals
707	238		Confirm T/O Insecticide	Tebufenozide	2	Gals
100	939		Platinum	Thiamethoxam	1	Gals
1812	328		Trilin 10 G Herbicide	Trifluralin	11,815	Lbs
34704	792		Trifluralin HF	Trifluralin	351	Gals
1812	355		Trilin Herbicide	Trifluralin	669	Gals
10163	120		Gowan Trifluralin 10 G Herbicide	Trifluralin	27,150	Lbs
62715	131		Treflan TR-10	Trifluralin	133,368	Lbs
62719	131	55467	Tenkoz Trifluralin 10 G	Trifluralin	3,000	Lbs
62719	131	71058	Triap 10 G	Trifluralin	4,000	Lbs
62719	250		Treflan HFP	Trifluralin	30	Gals
62719	250	71058	Triap 4 HF	Trifluralin	1,100	Gals
100	919		Flint Fungicide	Trifloxystrobin	23	Lbs
3125	559		Flint Fungicide	Trifloxystrobin	10	Lbs
7969	85	ZA	Curalan DF/EG Fungicide	Vinclozolin	1,520	Lbs
7069	85	ZC	Ronilan DF/EG Fungicide	Vinclozolin	1,520	Lbs
1812	367		Unknown	Unknown	25	Gals
9779	255		Unknown	Unknown	207	Gals
72444	0		Unknown	Unknown	100	Lbs

Table 5: Reported Pesticide Application by County Jan. 1, 2002 to Dec. 31, 2002

EPA 1	EPA 2	EPA 3	Brand	Active Ingredient	Total Chemical	Units	County
9779	263		2,4-D Amine 4 Herbicide	2,4-D DMA Salt	30	Gals	COC
264	330		Temik Brand 15 G Aldicarb Herbicide	Aldicarb	1,380	Lbs	COC
100	497		Aatrex 4 L Herbicide	Atrazine	3,296	Gals	COC
34704	69		Atrazine 4 L Herbicide	Atrazine	8	Gals	COC
279	2876		Furdan 4 F	Carbofuran	128	Gals	COC
59639	3		Select 2 EC Herbicide	Clethodim	8	Gals	COC
524	445	ZE	Honcho Herbicide	Glyphosate, Isopropylamine Salt	146	Gals	COC
524	445	ZG	Rascal Herbicide	Glyphosate, Isopropylamine Salt	146	Gals	COC
524	445		Roundup Herbicide	Glyphosate, Isopropylamine Salt	146	Gals	COC
524	445	ZE	Roundup Original Herbicide	Glyphosate, Isopropylamine Salt	146	Gals	COC
62719	322	ZD	Accord SP Herbicide	Glyphosate, Isopropylamine Salt	156	Gals	COC
62719	322		Glyphomax Plus	Glyphosate, Isopropylamine Salt	156	Gals	COC
62719	322		Glypro Plus	Glyphosate, Isopropylamine Salt	156	Gals	COC
62719	323		Gluphomax	Glyphosate, Isopropylamine Salt	13	Gals	COC
707	159		Kerb 50 W/WSP	Pronamide	960	Lbs	COC
62719	250		Triap 4 HF	Trifluralin	25	Gals	COC
9779	255		Unknown	Unknown	207	Gals	COC
42750	19		2,4-D Amine 4 Herbicide	2,4-D DMA Salt	17	Gals	GIL
7969	137		Clarity Herbicide	Dicamba, DGA Salt	6	Gals	GIL
100	497		Aatrex 4 L Herbicide	Atrazine	320	Gals	GRA
62719	250	71058	Triap 4 HF	Trifluralin	20	Gals	GRA
62719	321		Telone EC	1,3 Dichloropropene	31,289	Gals	LAP
10163	200		Prefar 4 E Selective Herbicide	Bensulate	916	Gals	LAP
2935	366		Sevin 5 Bait	Carbaryl	3,572	Lbs	LAP
10163	100		Gowan Diazinon 4 E	Diazinon	11	Gals	LAP
3125	422		Admire 2 F	Imidacloprid	231	Gals	LAP
100	801		Ridomil Gold EC Fungicide	Mefenoxam	285	Gals	LAP
5481	468		Vapam HL Soil Fumigant	Metam-Sodium	8,202	Gals	LAP
61842	6		Sectagon 4 L Fumigant Solution	Metam-Sodium	15,141	Gals	LAP
241	337		Prowl 3.3 EC Herbicide	Pendimethalin	241	Gals	LAP
1812	274		Cotton-Pro Herbicide	Prometryn	211	Gals	LAP
3125	559		Flint Fungicide	Trifloxystrobin	10	Lbs	LAP
1812	328		Trilin 10 G Herbicide	Trifluralin	1,750	Lbs	LAP
1812	355		Trilin Herbicide	Trifluralin	34	Gals	LAP
62719	131		Treflan TR 10	Trifluralin	2,020	Lbs	LAP

62719	250	71058	Triap 4 HF	Trifluralin	80	Gals	LAP
62719	32		Telone II	1,3 Dichloropropene	23,846	Gals	MAR
62719	321		Telone EC	1,3 Dichloropropene	11,641	Gals	MAR
264	330		Temik Brand 15 G Aldicarb Pesticide	Aldicarb	4,050	Lbs	MAR
100	497		Aatrex 4 L Herbicide	Atrazine	66	Gals	MAR
10163	200		Prefar 4 E Selective Herbicide	Bensulate	40	Gals	MAR
58266	5	11220	Tri-Clor EC Fumigant	Chloropicrin	69,751	Lbs	MAR
62719	220		Lorsban 4 E	Chlorpyrifos	40	Gals	MAR
59639	3		Select 2 EC Herbicide	Clethodim	31	Gals	MAR
1812	366		Cy-Pro 4 L Herbicide	Cyanazine	244	Gals	MAR
10163	100		Gowan Diazinon 4 E	Diazinon	18	Gals	MAR
10163	104		Gowan Diazinon 14 G	Diazinon	382	Lbs	MAR
1812	257	ZA	Direx 4 L Herbicide	Diuron	391	Gals	MAR
1812	257	ZB	Karmex IWC 4 L Herbicide	Diuron	391	Gals	MAR
2935	408		Diazinon 14 G	Diazinon	648	Lbs	MAR
3125	283		Nemacur 3 E Systemic Insecticide-Nematicide	Fenamiphos	30	Gals	MAR
524	475	ZD	Accord SP Herbicide	Glyphosate, Isopropylamine Salt	15	Gals	MAR
524	475	ZE	Roundup Original II CA Herbicide	Glyphosate, Isopropylamine Salt	15	Gals	MAR
524	475	ZA	Roundup Pro Herbicide	Glyphosate, Isopropylamine Salt	15	Gals	MAR
524	475	ZB	Roundup Ultra Herbicide	Glyphosate, Isopropylamine Salt	15	Gals	MAR
524	475	ZC	Roundup W Herbicide	Glyphosate, Isopropylamine Salt	15	Gals	MAR
524	512		Roundup Ultramax Herbicide	Glyphosate, Isopropylamine Salt	280	Gals	MAR
10182	449		Touchdown Herbicide	Glyphosate, Trimesium	18	Gals	MAR
241	310		Pursuit Herbicide	Imazethapyr	5	Gals	MAR
241	386		Pursuit WDG Herbicide Eco-Pak	Imazethapyr	2	Lbs	MAR
3125	422		Admire 2 F	Imidacloprid	116	Gals	MAR
10182	434		Warrior/Karate Insecticide	Lambdacyhalothrin	24	Gals	MAR
5905	250		Fyfanon 8 E	Malathion	4	Gals	MAR
100	801		Ridomil Gold EC Fungicide	Mefenoxam	125	Gals	MAR
5481	468		Vapam HL Soil Fumigant	Metam-Sodium	13,907	Gals	MAR
3125	314		Sencor 4 F Herbicide	Metribuzin	104	Lbs	MAR
3125	325		Sencor 75% Turf Herbicide	Metribuzin	2,288	Lbs	MAR
50534	6	10182	Bueno 6	MSMA	6	Gals	MAR
100	848		Zorial rapid 80 Herbicide	Norflurazon	945	Lbs	MAR
55947	77		Sandoz-Zrial Rapid 80 Herbicide	Norflurazon	560	Lbs	MAR
241	337		Prowl 3.3 EC Herbicide	Pendimethalin	2,347	Gals	MAR
100	620		Caparol 4 L Herbicide	Prometryn	60	Gals	MAR
1812	274		Cotton-Pro Herbicide	Prometryn	943	Gals	MAR

352	576		Staple Herbicide	Pyrrithiobac-Sodium	11	Lbs	MAR
7969	58	51036	Poast	Sethoxydim	9	Gals	MAR
100	603		Princip Caliber 90 Herbicide	Simazine	210	Lbs	MAR
100	603		Princep DF Herbicide	Simazine	105	Lbs	MAR
10163	120		Gowan Trifluralin 10 G Herbicide	Trifluralin	27,150	Lbs	MAR
1812	328		Trilin 10 G Herbicide	Trifluralin	5,665	Lbs	MAR
1812	355		Trilin Herbicide	Trifluralin	463	Gals	MAR
62715	131		Treflan TR 10	Trifluralin	82,198	Lbs	MAR
62719	131	55467	Tenkoz Trifluralin 10 G	Trifluralin	3,000	Lbs	MAR
62719	250		Treflan HFP	Trifluralin	14	Gals	MAR
62719	250	71058	Triap 4 HF	Trifluralin	500	Gals	MAR
100	939		Platinum	Thiamethoxam	1	Gals	MAR
1812	367		Unknown	Unknown	25	Gals	MAR
524	475	ZD	Accord SP Herbicide	Glyphosate, Isopropylamine Salt	25	Gals	MOH
524	475	ZE	Roundup riginal II CA Herbicide	Glyphosate, Isopropylamine Salt	25	Gals	MOH
524	475	ZA	Roundup Pro Herbicide	Glyphosate, Isopropylamine Salt	25	Gals	MOH
524	475	ZB	Roundup Ultra Herbicide	Glyphosate, Isopropylamine Salt	25	Gals	MOH
524	475	ZC	Roundup W Herbicide	Glyphosate, Isopropylamine Salt	25	Gals	MOH
241	337		Prowl 3.3 EC Herbicide	Pendimethalin	113	Gals	MOH
1812	274		Cotton-Pro Herbicide	Prometryn	45	Gals	MOH
241	337		Prowl 3.3 EC Herbicide	Pendimethalin	199	Gals	PIM
68156	6	62719	Pendimax 3.3 EC Herbicide	Pendimethalin	78	Gals	PIM
100	620		Caparol 4 L Herbicide	Prometryn	1,160	Gals	PIM
1812	274		Cotton-Pro-Herbicide	Prometryn	192	Gals	PIM
62719	250		Treflan HFP	Trifluralin	9	Gals	PIM
62719	250	71058	Triap 4 HF	Trifluralin	82	Gals	PIM
62719	32		Telone II	1,3 Dichloropropene	371	Gals	PIN
56077	26		Butoxone 200	2,4-DB DMA Salt	24	Gals	PIN
264	330		Temik Brand 15 G Aldicarb Pesticide	Aldicarb	7,005	Lbs	PIN
100	497		Aatrex 4 L Herbicide	Atrazine	838	Gals	PIN
19713	11		Drexel Atrazine 4 L Herbicide	Atrazine	41	Gals	PIN
73677	3	56077	Sultan + 6.7 E	Butylate	59	Gals	PIN
279	3241		Aim Herbicide	Carfentrazone - Ethyl	4	Gals	PIN
58266	5	11220	Tri-Clor EC Fumigant	Chloropicrin	33,855	Lbs	PIN
59639	3		Select 2 EC Herbicide	Clethodim	8	Gals	PIN
1812	366		Cy-Pro 4 L Herbicide	Cyanazine	427	Gals	PIN
3125	351		Baythroid 2 E Pyrethroid Insecticide	Cyfluthrin	2	Gals	PIN
1812	257		Direx 4 L Herbicide	Diuron	202	Gals	PIN
1812	257		Karmex IWC 4 L Herbicide	Diuron	202	Gals	PIN

10182	199		Eptam 20 G Selective Herbicide	EPTC	4,590	Lbs	PIN
10182	220		Eptam 7 E Selective Herbicide	EPTC	28	Gals	PIN
1812	439		Cotoran 4 L Herbicide	Fluometuron	8	Gals	PIN
241	386		Pursuit WDG Herbicide Eco-Pak	Imazathapyr	10	Lbs	PIN
100	816		Dual magnum Herbicide	Metolachlor	124	Gals	PIN
100	848		Zorial rapid 80 Herbicide	Norflurazon	560	Lbs	PIN
68156	6	62719	Pendimax 3.3 EC Herbicide	Pendimethalin	138	Gals	PIN
241	337		Prowl 3.3 EC Herbicide	Pendimethalin	1,718	Gals	PIN
55947	77		Sandoz-Zorial Rapid 80 Herbicide	Norflurazon	170	Lbs	PIN
1812	274		Cotton-Pro Herbicide	Prometryn	1,310	Gals	PIN
34704	692		Prometryn 4 L Herbicide	Prometryn	184	Gals	PIN
1812	328		Trilin 10 G Herbicide	Trifluralin	4,400	Lbs	PIN
1812	355		Trilin Herbicide	Trifluralin	172	Gals	PIN
34704	792		Trifluralin HF	Trifluralin	351	Gals	PIN
62719	131		Treflan TR 10	Trifluralin	46,400	Lbs	PIN
62719	131	71058	Triap 10 G	Trifluralin	4,000	Lbs	PIN
62719	250	71058	Triap 4 HP	Trifluralin	232	Gals	PIN
59639	89		Orthene 75 WSP	Acephate	690	Lbs	YUM
34704	746		Balan DF Herbicide	Benefin	12,509	Lbs	YUM
352	564		Benlate SP Fungicide	Benomyl	50	Lbs	YUM
10163	200		Prefar 4 E Selective Herbicide	Bensulate	4,406	Gals	YUM
279	3027		Ammo 2.5 EC Insecticide	Cypermethrin	1	Gals	YUM
279	3126		Mustang Insecticide	Cypermethrin	242	Gals	YUM
5481	490		Dacthal W 75 Herbicide	DCPA	2,542	Lbs	YUM
10163	100		Gowan Diazinon 5 E	Diazinon	490	Gals	YUM
264	634		Ginstar Cotton Defoliant	Diuron + Thidiazuron	70	Gals	YUM
352	515		Du Pont Asana XL Insecticide	Esfenvalerate	2	Gals	YUM
524	475	ZD	Accord SP Herbicide	Glyphosate, Isopropylamine Salt	6	Gals	YUM
524	475	ZE	Roundup Original II CA Herbicide	Glyphosate, Isopropylamine Salt	6	Gals	YUM
524	475	ZA	Roundup Pro Herbicide	Glyphosate, Isopropylamine Salt	6	Gals	YUM
524	475	ZB	Roundup Ultra Herbicide	Glyphosate, Isopropylamine Salt	6	Gals	YUM
524	475	ZC	Roundup W Herbicide	Glyphosate, Isopropylamine Salt	6	Gals	YUM
524	512		Roundup Ultramax Herbicide	Glyphosate, Isopropylamine Salt	11	Gals	YUM
3125	422		Admire 2 F	Imidacloprid	661	Gals	YUM
352	597		Du Pont Avaunt Insecticide	Indoxacarb	4	Lbs	YUM
264	482		Rovral 4 F Fungicide	Iprodione	1,212	Gals	YUM
1812	251		Manex Fungicide Flowable With Zinc	Maneb	292	Gals	YUM
1812	251		Pentathlon Fungicide Flowable With Zinc	Maneb	292	Gals	YUM

100	801		Ridomil Gold EC Fungicide	Mefenoxam	190	Gals	YUM
5481	468		Vapam HL Soil Fumigant	Metam-Sodium	24,909	Gals	YUM
61842	6		Sectagon 4 L Fumigant Solution	Metam-Sodium	2,750	Gals	YUM
55146	73		Ultra Flourish Agricultural Fungicide	Metalaxyl	6	Gals	YUM
352	342		Du Pont Lannate SP Insecticide	Methomyl	218	Lbs	YUM
62719	442		Intrepid 2 F	Methoxyfenozide	35	Gals	YUM
100	816		Dual Magnum Herbicide	Metolachlor	124	Gals	YUM
3125	325		Sencor 75% Turf Herbicide	Metribuzin	124	Lbs	YUM
707	243		Goal 2 XI Herbicide	Oxyfluorfen	136	Gals	YUM
66222	28		Galigan 2 E	Oxyfluorfen	30	Gals	YUM
100	1074		Gramoxone Max	Paraquat Dichloride	43	Gals	YUM
241	337		Prowl 3.3 EC Herbicide	Pendimethalin	101	Gals	YUM
279	3014		Pounce 3.2 EC Insecticide	Permethrin	13	Gals	YUM
279	3051		Pounce 25 WP Insecticide	Permethrin	22	Lbs	YUM
707	159		Kerb 50 W/WSP Herbicide	Pronamide	35,394	Lbs	YUM
62719	397		Kerb 50 W/WSP Herbicide	Pronamide	1,731	Lbs	YUM
19713	60		Drexel Simazine 4 L	Simazine	250	Gals	YUM
707	238		Confirm 2 F Agricultural Insecticide	Tebufenozide	2	Gals	YUM
707	238		Confirm T/O Insecticide	Tebufenozide	2	Gals	YUM
62719	131		Treflan TR 10	Trifluralin	2,750	Lbs	YUM
62719	250		Treflan HFP	Trifluralin	13	Gals	YUM
62719	250	71058	Triap 4 HP	Trifluralin	161	Gals	YUM
100	919		Flint Fungicide	Trifloxystrobin	23	Lbs	YUM
7969	85	ZA	Curalan DF/EG Fungicide	Vinclozolin	1,520	Lbs	YUM
7969	85	ZC	Ronilan DF/EG Fungicide	Vinclozolin	1,520	Lbs	YUM
72444	0		Unknown	Unknown	100	Lbs	YUM