

**Table 39. Fertilizers and Chemicals Applied: 2002 and 1997**

[Data are based on a sample of farms. For meaning of abbreviations and symbols, see introductory text]

Item	Michigan	Alcona	Alger	Allegan	Alpena	Antrim	Arenac
Commercial fertilizer, lime, and soil conditioners <sup>1</sup>							
farms, 2002	25,388	75	20	732	142	153	159
1997	32,662	99	39	1,028	233	179	217
acres treated, 2002	5,476,283	5,077	2,436	133,692	17,121	17,545	49,324
1997	5,902,898	7,460	2,183	153,875	39,725	16,234	47,761
Cropland fertilized, except cropland pastured							
farms, 2002	24,450	68	20	732	135	149	157
1997	32,027	99	39	987	233	167	217
acres treated, 2002	5,423,039	4,982	2,256	132,978	16,016	17,065	49,302
1997	5,849,145	7,091	(D)	153,198	38,771	15,686	47,401
Pastureland and rangeland fertilized							
farms, 2002	2,920	10	5	67	34	20	6
1997	2,456	8	3	93	53	16	8
acres treated, 2002	53,244	95	180	714	1,105	480	22
1997	53,753	369	(D)	677	954	548	360
Manure							
farms, 2002	11,955	65	19	427	101	51	81
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
acres treated, 2002	700,621	1,896	950	33,005	4,807	4,314	8,348
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Chemicals used to control-							
Insects <sup>2</sup>							
farms, 2002	8,314	19	2	322	32	67	61
1997	10,635	10	9	517	55	82	73
acres treated, 2002	990,827	1,054	(D)	35,120	1,290	8,126	8,699
1997	1,304,182	1,001	291	50,096	6,304	7,060	7,382
Weeds, grass, or brush							
farms, 2002	18,709	44	16	445	63	108	109
1997	22,149	51	23	605	134	107	164
acres treated, 2002	4,387,194	2,925	780	88,125	8,060	8,855	31,637
1997	4,535,954	3,127	1,261	116,489	23,808	7,585	36,954
Nematodes							
farms, 2002	971	-	-	15	-	7	4
1997	1,067	-	-	78	14	4	5
acres treated, 2002	86,159	-	-	3,878	-	614	80
1997	123,935	-	-	6,110	4,178	(D)	(D)
Diseases in crops and orchards							
farms, 2002	3,315	2	1	124	7	37	48
1997	4,494	6	5	182	16	61	13
acres treated, 2002	346,183	(D)	(D)	7,913	913	5,209	4,962
1997	390,025	72	(D)	9,927	861	5,426	1,476
Chemicals used to control growth, thin fruit, or defoliate							
farms, 2002	1,062	-	1	53	6	16	4
1997	1,541	-	-	30	-	24	18
acres on which used, 2002	86,216	-	(D)	1,361	30	2,388	88
1997	139,325	-	-	2,174	320	3,331	712

  

Item	Baraga	Barry	Bay	Benzie	Berrien	Branch	Calhoun
Commercial fertilizer, lime, and soil conditioners <sup>1</sup>							
farms, 2002	23	343	491	82	720	617	548
1997	30	504	614	91	968	667	741
acres treated, 2002	958	89,794	124,536	4,954	101,210	137,374	131,618
1997	814	78,418	140,357	5,632	115,410	118,174	140,539
Cropland fertilized, except cropland pastured							
farms, 2002	23	312	491	80	720	592	524
1997	28	480	614	91	968	641	727
acres treated, 2002	958	88,576	124,001	4,896	100,112	136,514	130,460
1997	(D)	76,660	140,213	5,580	115,056	117,234	138,324
Pastureland and rangeland fertilized							
farms, 2002	-	71	30	6	29	47	47
1997	2	81	9	4	40	74	63
acres treated, 2002	-	1,218	535	58	1,098	860	1,158
1997	(D)	1,758	144	52	354	940	2,215
Manure							
farms, 2002	15	271	114	44	138	224	309
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
acres treated, 2002	515	15,610	5,049	746	5,071	12,789	14,167
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Chemicals used to control-							
Insects <sup>2</sup>							
farms, 2002	3	61	203	45	483	136	150
1997	4	133	241	47	596	195	284
acres treated, 2002	(D)	13,107	25,584	3,058	42,546	28,071	26,926
1997	85	14,265	25,218	4,123	43,716	35,963	50,530
Weeds, grass, or brush							
farms, 2002	7	210	411	61	556	507	473
1997	5	330	463	51	664	482	567
acres treated, 2002	946	68,436	101,404	2,226	105,692	124,852	124,756
1997	333	52,476	113,140	4,498	96,004	101,928	108,060
Nematodes							
farms, 2002	-	2	45	6	76	18	27
1997	-	11	21	9	50	11	30
acres treated, 2002	-	(D)	2,759	54	3,007	1,988	3,494
1997	-	1,485	410	158	2,462	1,554	1,987
Diseases in crops and orchards							
farms, 2002	4	10	77	33	290	16	25
1997	1	16	95	48	479	50	28
acres treated, 2002	(D)	4,230	6,255	2,652	17,322	2,193	1,444
1997	(D)	961	5,569	4,139	24,890	2,930	1,166
Chemicals used to control growth, thin fruit, or defoliate							
farms, 2002	2	1	31	12	73	4	1
1997	-	32	22	33	129	13	19
acres on which used, 2002	(D)	-	1,928	753	3,956	1,372	(D)
1997	-	3,212	1,505	1,874	5,624	1,518	1,920

See footnote(s) at end of table.

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**Table 39. Fertilizers and Chemicals Applied: 2002 and 1997 - Con.**

[Data are based on a sample of farms. For meaning of abbreviations and symbols, see introductory text]

Item	Cass	Charlevoix	Cheboygan	Chippewa	Clare	Clinton	Crawford
Commercial fertilizer, lime, and soil conditioners <sup>1</sup> . . . . . farms, 2002	444	130	102	77	111	626	11
1997	590	114	146	171	182	884	12
acres treated, 2002	111,751	6,433	5,813	4,947	8,730	164,253	(D)
1997	103,634	7,204	9,197	12,734	12,756	178,230	192
Cropland fertilized, except cropland pastured . . . . . farms, 2002	403	102	94	77	98	614	6
1997	567	102	141	160	174	869	11
acres treated, 2002	110,131	5,918	4,950	4,607	6,534	163,960	(D)
1997	102,451	6,868	8,445	10,484	11,652	177,409	152
Pastureland and rangeland fertilized . . . . . farms, 2002	74	44	27	7	27	25	6
1997	71	23	33	46	20	56	3
acres treated, 2002	1,620	515	863	340	2,196	293	57
1997	1,183	336	752	2,250	1,104	821	40
Manure . . . . . farms, 2002	214	79	59	84	91	216	8
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
acres treated, 2002	18,988	2,231	2,505	2,647	5,437	23,162	(D)
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Chemicals used to control-							
Insects <sup>2</sup> . . . . . farms, 2002	168	36	27	11	12	124	2
1997	198	19	24	3	7	215	2
acres treated, 2002	32,082	1,549	725	140	173	15,821	(D)
1997	29,739	739	942	392	966	23,074	(D)
Weeds, grass, or brush . . . . . farms, 2002	295	74	50	27	82	476	7
1997	377	62	46	49	87	683	4
acres treated, 2002	93,431	3,351	1,662	727	3,852	140,380	44
1997	85,719	3,169	2,855	2,243	6,256	141,262	59
Nematodes . . . . . farms, 2002	19	-	1	-	-	24	-
1997	13	1	1	-	-	28	-
acres treated, 2002	1,750	-	18	-	-	753	-
1997	1,634	(D)	(D)	-	-	2,054	-
Diseases in crops and orchards . . . . . farms, 2002	32	17	11	5	144	32	3
1997	49	9	4	-	6	37	1
acres treated, 2002	8,278	803	35	5	12	1,197	(D)
1997	3,500	(D)	(D)	-	558	985	(D)
Chemicals used to control growth, thin fruit, or defoliate . . . . . farms, 2002	32	5	-	-	-	5	-
1997	16	9	2	1	7	46	-
acres on which used, 2002	3,065	50	-	-	-	266	-
1997	1,422	102	(D)	(D)	70	3,365	-
Item	Delta	Dickinson	Eaton	Emmet	Genesee	Gladwin	Gogebic
Commercial fertilizer, lime, and soil conditioners <sup>1</sup> . . . . . farms, 2002	116	61	557	110	449	186	7
1997	160	68	747	141	388	268	10
acres treated, 2002	12,984	4,894	140,904	9,072	81,280	16,857	142
1997	15,638	5,380	152,488	8,740	85,350	23,406	(D)
Cropland fertilized, except cropland pastured . . . . . farms, 2002	109	55	536	107	449	156	6
1997	159	63	731	136	387	243	8
acres treated, 2002	11,758	4,864	139,257	8,365	80,947	16,379	(D)
1997	14,334	5,157	150,944	7,913	85,236	22,900	(D)
Pastureland and rangeland fertilized . . . . . farms, 2002	46	6	62	25	29	66	2
1997	29	8	68	35	15	39	2
acres treated, 2002	1,226	30	1,647	707	333	478	(D)
1997	1,304	223	1,544	827	114	506	(D)
Manure . . . . . farms, 2002	83	42	254	90	250	134	13
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
acres treated, 2002	3,533	1,530	5,899	3,679	8,222	3,854	314
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Chemicals used to control-							
Insects <sup>2</sup> . . . . . farms, 2002	25	13	115	27	119	20	1
1997	44	18	211	31	110	46	-
acres treated, 2002	1,836	892	13,170	658	6,503	1,605	(D)
1997	1,892	1,211	18,749	993	7,541	1,872	-
Weeds, grass, or brush . . . . . farms, 2002	73	28	497	66	394	158	2
1997	60	40	572	69	273	144	5
acres treated, 2002	6,510	1,824	112,941	3,125	72,368	12,009	(D)
1997	7,002	2,256	113,287	4,683	72,377	12,566	90
Nematodes . . . . . farms, 2002	10	2	20	3	19	1	-
1997	1	3	33	1	9	13	-
acres treated, 2002	510	(D)	2,391	3	19	(D)	-
1997	(D)	(D)	3,788	(D)	1,137	499	-
Diseases in crops and orchards . . . . . farms, 2002	13	6	12	10	55	14	-
1997	8	16	38	14	30	12	-
acres treated, 2002	630	364	2,234	18	2,153	965	-
1997	1,301	728	1,520	47	1,018	470	-
Chemicals used to control growth, thin fruit, or defoliate . . . . . farms, 2002	13	4	30	-	1	1	-
1997	2	4	11	-	1	3	-
acres on which used, 2002	426	160	450	-	(D)	(D)	-
1997	(D)	(D)	(D)	-	(D)	(D)	-

See footnote(s) at end of table.

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**Table 39. Fertilizers and Chemicals Applied: 2002 and 1997 - Con.**

[Data are based on a sample of farms. For meaning of abbreviations and symbols, see introductory text]

Item	Grand Traverse	Gratiot	Hillsdale	Houghton	Huron	Ingham	Ionia	Iosco
Commercial fertilizer, lime, and soil conditioners <sup>1</sup> . . . . . farms, 2002	238	566	545	62	633	604	558	98
1997	306	662	720	64	914	644	685	134
acres treated, 2002	17,277	213,670	161,382	2,024	306,677	123,105	158,917	13,765
1997	28,078	217,923	148,822	2,942	335,436	131,278	153,799	10,143
Cropland fertilized, except cropland pastured . . . . . farms, 2002	238	566	545	54	633	559	538	92
1997	306	642	707	58	914	626	685	134
acres treated, 2002	17,027	213,498	160,523	1,725	306,223	121,171	158,206	13,355
1997	(D)	216,915	148,219	2,639	334,798	130,232	152,949	9,848
Pastureland and rangeland fertilized . . . . . farms, 2002	5	12	57	19	26	115	47	15
1997	2	44	31	12	33	77	34	11
acres treated, 2002	250	172	859	299	454	1,934	711	410
1997	(D)	1,008	603	303	638	1,046	850	295
Manure . . . . . farms, 2002	109	125	279	39	409	207	301	74
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
acres treated, 2002	2,348	12,468	13,675	748	46,050	14,439	20,151	3,798
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Chemicals used to control-								
Insects <sup>2</sup> . . . . . farms, 2002	164	125	72	15	278	157	89	53
1997	178	211	179	11	397	126	278	10
acres treated, 2002	8,101	19,730	15,033	59	65,731	7,571	15,169	715
1997	8,913	29,330	26,763	57	73,576	20,498	31,455	1,159
Weeds, grass, or brush . . . . . farms, 2002	153	520	411	16	636	439	445	58
1997	184	548	561	26	743	417	542	70
acres treated, 2002	12,485	203,217	127,160	555	268,442	108,732	123,457	8,144
1997	19,934	176,006	129,530	519	272,186	107,152	116,251	6,698
Nematodes . . . . . farms, 2002	8	30	3	-	19	4	2	18
1997	19	21	19	-	19	16	16	1
acres treated, 2002	220	2,250	1,170	-	1,970	(D)	(D)	285
1997	72	1,801	2,577	-	1,288	2,378	1,842	(D)
Diseases in crops and orchards . . . . . farms, 2002	70	35	12	6	116	18	44	23
1997	132	5	45	6	116	41	66	10
acres treated, 2002	6,992	5,400	594	424	32,206	305	3,009	290
1997	6,810	361	5,215	30	21,288	2,953	5,485	440
Chemicals used to control growth, thin fruit, or defoliate . . . . . farms, 2002	36	13	3	-	21	5	2	-
1997	60	5	43	-	32	11	34	5
acres on which used, 2002	3,266	698	209	-	2,593	385	(D)	-
1997	2,518	978	2,439	-	3,988	1,018	1,954	128
Item	Iron	Isabella	Jackson	Kalamazoo	Kalkaska	Kent	Keweenaw	Lake
Commercial fertilizer, lime, and soil conditioners <sup>1</sup> . . . . . farms, 2002	43	511	462	416	55	607	1	57
1997	39	722	671	514	89	816	1	67
acres treated, 2002	3,450	105,055	99,674	89,207	4,748	98,188	(D)	2,125
1997	3,101	129,586	119,129	96,728	6,358	109,015	(D)	3,289
Cropland fertilized, except cropland pastured . . . . . farms, 2002	42	511	456	342	51	579	-	46
1997	36	722	671	514	87	798	1	67
acres treated, 2002	3,186	(D)	98,837	87,700	4,670	97,042	-	1,939
1997	2,612	128,443	118,068	96,413	6,244	107,805	(D)	2,939
Pastureland and rangeland fertilized . . . . . farms, 2002	10	1	42	87	10	55	1	19
1997	7	34	41	13	8	52	-	11
acres treated, 2002	264	(D)	837	1,507	78	1,146	(D)	186
1997	489	1,143	1,061	315	114	1,210	-	350
Manure . . . . . farms, 2002	30	247	185	209	34	385	1	50
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
acres treated, 2002	810	13,115	5,820	14,115	820	21,701	(D)	1,936
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Chemicals used to control-								
Insects <sup>2</sup> . . . . . farms, 2002	7	140	107	200	22	263	-	12
1997	8	170	203	206	29	390	-	4
acres treated, 2002	708	12,534	20,694	25,616	2,212	29,701	-	103
1997	437	22,976	24,885	36,681	2,248	39,003	-	70
Weeds, grass, or brush . . . . . farms, 2002	22	425	351	337	33	326	-	26
1997	18	467	452	313	26	494	-	20
acres treated, 2002	1,325	86,961	77,418	79,161	2,801	82,198	-	549
1997	1,402	79,193	93,283	79,578	2,135	71,482	-	981
Nematodes . . . . . farms, 2002	4	20	20	4	1	33	-	1
1997	1	3	29	24	3	27	-	2
acres treated, 2002	318	1,855	(D)	(D)	(D)	3,051	-	(D)
1997	(D)	670	2,356	1,404	191	2,347	-	(D)
Diseases in crops and orchards . . . . . farms, 2002	11	23	2	66	12	99	-	1
1997	7	31	31	92	9	212	-	-
acres treated, 2002	712	1,540	(D)	4,345	1,324	13,247	-	(D)
1997	456	5,973	708	4,223	561	13,853	-	-
Chemicals used to control growth, thin fruit, or defoliate . . . . . farms, 2002	4	9	11	26	2	72	-	-
1997	3	9	9	39	1	102	-	-
acres on which used, 2002	408	135	165	123	(D)	7,963	-	-
1997	255	1,003	216	4,697	(D)	10,132	-	-

See footnote(s) at end of table.

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**Table 39. Fertilizers and Chemicals Applied: 2002 and 1997 - Con.**

[Data are based on a sample of farms. For meaning of abbreviations and symbols, see introductory text]

Item	Lapeer	Leelanau	Lenawee	Livingston	Luce	Mackinac	Macomb	Manistee
Commercial fertilizer, lime, and soil conditioners <sup>1</sup> . . . . . farms, 2002	508	304	754	345	12	17	230	185
1997	664	351	876	389	22	33	386	186
acres treated, 2002	96,360	25,950	221,082	55,461	916	1,364	39,540	9,230
1997	95,486	26,663	255,571	61,191	1,866	2,558	36,127	12,319
Cropland fertilized, except cropland pastured . . . . . farms, 2002	493	277	739	345	12	17	230	168
1997	643	343	867	371	19	33	375	186
acres treated, 2002	96,016	24,996	220,624	55,333	761	1,336	39,540	8,638
1997	94,242	26,569	255,248	60,476	(D)	(D)	35,879	12,319
Pastureland and rangeland fertilized . . . . . farms, 2002	32	62	35	23	3	6	-	33
1997	58	15	29	44	4	2	46	-
acres treated, 2002	344	954	458	128	155	28	-	592
1997	1,244	94	323	715	(D)	(D)	248	-
Manure . . . . . farms, 2002	225	71	195	213	6	18	54	80
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
acres treated, 2002	10,815	4,653	20,363	4,242	473	1,530	2,699	2,291
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Chemicals used to control-								
Insects <sup>2</sup> . . . . . farms, 2002	74	229	218	124	6	4	96	76
1997	168	234	243	97	8	10	107	92
acres treated, 2002	6,765	16,610	33,770	4,413	497	(D)	5,310	3,899
1997	23,492	17,253	34,213	15,828	925	(D)	4,478	8,095
Weeds, grass, or brush . . . . . farms, 2002	413	237	622	192	8	9	197	66
1997	393	256	703	242	8	12	186	122
acres treated, 2002	87,691	18,058	204,860	37,777	694	337	34,130	3,680
1997	72,710	15,699	223,507	38,061	(D)	1,318	22,807	11,973
Nematodes . . . . . farms, 2002	2	27	22	1	-	-	2	5
1997	10	38	10	20	-	-	10	10
acres treated, 2002	(D)	603	401	(D)	-	-	(D)	(D)
1997	1,108	689	6,163	4,163	-	(D)	566	1,733
Diseases in crops and orchards . . . . . farms, 2002	44	159	91	76	5	2	62	48
1997	59	221	59	42	4	4	89	81
acres treated, 2002	3,114	14,698	2,880	564	191	(D)	4,014	2,381
1997	4,189	17,540	7,795	1,277	(D)	(D)	4,545	5,967
Chemicals used to control growth, thin fruit, or defoliate . . . . . farms, 2002	13	85	5	1	1	2	21	11
1997	18	105	18	35	1	-	13	41
acres on which used, 2002	285	5,471	1,036	(D)	(D)	(D)	137	856
1997	372	7,316	3,797	1,661	(D)	-	2,108	1,290
Item	Marquette	Mason	Mecosta	Menominee	Midland	Missaukee	Monroe	Montcalm
Commercial fertilizer, lime, and soil conditioners <sup>1</sup> . . . . . farms, 2002	30	270	312	169	203	197	823	479
1997	48	281	388	259	318	186	854	690
acres treated, 2002	3,231	37,087	31,696	25,575	47,827	35,263	170,399	141,864
1997	4,324	40,183	36,940	32,178	67,687	33,612	177,437	146,924
Cropland fertilized, except cropland pastured . . . . . farms, 2002	28	236	293	166	203	197	764	469
1997	48	281	382	251	305	173	846	668
acres treated, 2002	3,062	36,338	30,792	24,553	47,491	34,916	169,577	140,530
1997	4,289	39,687	36,155	31,076	67,110	32,752	177,029	145,771
Pastureland and rangeland fertilized . . . . . farms, 2002	9	43	60	41	17	10	85	85
1997	3	18	47	37	41	27	26	60
acres treated, 2002	169	749	904	1,022	336	347	822	1,334
1997	35	496	785	1,102	577	860	408	1,153
Manure . . . . . farms, 2002	34	161	198	153	80	116	168	304
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
acres treated, 2002	1,488	10,153	12,168	13,778	2,551	13,379	4,003	26,966
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Chemicals used to control-								
Insects <sup>2</sup> . . . . . farms, 2002	10	148	41	28	34	44	228	137
1997	9	177	40	27	67	55	273	145
acres treated, 2002	654	15,660	4,830	681	3,965	4,087	32,308	29,542
1997	509	14,401	5,886	1,478	7,078	4,996	27,035	38,237
Weeds, grass, or brush . . . . . farms, 2002	17	219	170	111	152	87	707	358
1997	17	186	166	129	217	119	700	431
acres treated, 2002	1,246	27,472	19,785	11,982	36,149	16,837	156,107	101,038
1997	977	29,611	21,207	12,298	52,050	14,235	158,661	119,310
Nematodes . . . . . farms, 2002	-	30	1	-	-	1	34	28
1997	-	22	10	3	-	2	32	47
acres treated, 2002	-	254	(D)	-	-	(D)	2,493	14,874
1997	-	274	1,563	61	-	(D)	2,078	12,849
Diseases in crops and orchards . . . . . farms, 2002	3	79	-	6	24	15	71	41
1997	6	98	22	12	7	38	119	66
acres treated, 2002	(D)	6,521	-	26	1,583	(D)	6,058	20,544
1997	(D)	5,442	2,647	386	160	1,675	5,939	20,360
Chemicals used to control growth, thin fruit, or defoliate . . . . . farms, 2002	1	19	1	3	-	2	23	14
1997	2	27	3	8	12	2	25	28
acres on which used, 2002	(D)	2,460	(D)	45	-	(D)	882	15,126
1997	(D)	2,698	1,010	56	36	(D)	1,737	12,101

See footnote(s) at end of table.

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**Table 39. Fertilizers and Chemicals Applied: 2002 and 1997 - Con.**

[Data are based on a sample of farms. For meaning of abbreviations and symbols, see introductory text]

Item	Montmorency	Muskegon	Newaygo	Oakland	Oceana	Ogemaw	Ontonagon	Osceola
Commercial fertilizer, lime, and soil conditioners <sup>1</sup> . . . . . farms, 2002	38	232	460	204	334	111	31	214
1997	67	299	510	175	485	200	44	288
acres treated, 2002	5,623	27,002	50,153	12,119	58,260	17,979	2,241	24,156
1997	6,097	36,717	57,422	21,705	61,281	30,074	2,905	29,772
Cropland fertilized, except cropland pastured . . . . . farms, 2002	34	194	448	204	317	97	28	207
1997	57	299	504	168	474	199	42	288
acres treated, 2002	5,458	26,406	48,223	(D)	57,244	17,692	2,077	23,027
1997	5,862	36,307	56,589	21,677	60,993	29,677	(D)	29,439
Pastureland and rangeland fertilized . . . . . farms, 2002	7	66	129	2	53	23	5	27
1997	13	14	32	7	29	7	3	24
acres treated, 2002	165	596	1,930	(D)	1,016	287	164	1,129
1997	235	410	833	28	288	397	(D)	333
Manure . . . . . farms, 2002	34	134	381	54	124	92	36	147
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
acres treated, 2002	1,908	11,847	16,219	882	9,952	8,716	2,619	9,782
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Chemicals used to control-								
Insects <sup>2</sup> . . . . . farms, 2002	4	97	155	69	229	3	7	7
1997	4	139	162	108	283	41	5	25
acres treated, 2002	(D)	9,553	14,614	1,308	41,091	596	381	2,276
1997	384	9,869	15,931	5,261	37,501	2,319	528	2,299
Weeds, grass, or brush . . . . . farms, 2002	17	126	271	133	244	72	14	108
1997	26	194	311	102	341	91	8	141
acres treated, 2002	2,510	15,059	30,531	9,073	48,605	9,632	697	7,928
1997	3,403	29,099	31,961	12,771	37,208	13,257	376	8,990
Nematodes . . . . . farms, 2002	-	2	11	-	31	-	-	-
1997	-	12	12	11	13	-	-	18
acres treated, 2002	(D)	374	1,810	-	1,781	-	-	-
1997	-	27	1,627	1,131	556	-	-	909
Diseases in crops and orchards . . . . . farms, 2002	2	77	30	40	143	1	2	2
1997	1	27	62	45	262	7	26	7
acres treated, 2002	(D)	3,383	4,675	377	31,200	(D)	(D)	(D)
1997	(D)	5,749	5,513	543	30,224	380	-	1,112
Chemicals used to control growth, thin fruit, or defoliate . . . . . farms, 2002	-	12	22	3	45	-	-	-
1997	-	39	7	2	71	1	-	-
acres on which used, 2002	-	1,432	1,221	(D)	7,120	-	-	-
1997	-	1,653	1,483	(D)	5,737	(D)	-	-
Item	Oscoda	Otsego	Ottawa	Presque Isle	Roscommon	Saginaw	St. Clair	St. Joseph
Commercial fertilizer, lime, and soil conditioners <sup>1</sup> . . . . . farms, 2002	44	72	828	138	8	716	445	498
1997	54	102	1,003	213	19	1,030	660	659
acres treated, 2002	3,574	6,162	107,624	17,973	377	224,394	105,063	156,467
1997	4,125	6,105	99,268	28,941	495	252,213	104,169	166,275
Cropland fertilized, except cropland pastured . . . . . farms, 2002	44	70	802	132	8	701	406	482
1997	52	99	996	208	19	1,030	652	628
acres treated, 2002	3,204	6,047	106,004	17,373	(D)	224,300	103,601	154,393
1997	3,664	6,075	98,560	27,673	445	252,089	103,527	164,378
Pastureland and rangeland fertilized . . . . . farms, 2002	11	5	87	26	1	26	131	100
1997	16	3	39	50	3	9	37	104
acres treated, 2002	370	115	1,620	600	(D)	94	1,462	2,074
1997	461	30	708	1,268	50	124	642	1,897
Manure . . . . . farms, 2002	48	29	414	81	7	166	283	193
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
acres treated, 2002	2,333	821	34,508	4,388	110	7,737	6,093	14,177
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Chemicals used to control-								
Insects <sup>2</sup> . . . . . farms, 2002	3	19	373	37	5	222	103	222
1997	3	13	488	48	4	176	82	344
acres treated, 2002	(D)	717	28,541	5,417	203	17,851	3,286	53,070
1997	(D)	1,157	43,248	4,944	67	27,161	5,230	104,126
Weeds, grass, or brush . . . . . farms, 2002	19	41	463	105	5	601	343	337
1997	26	58	685	104	3	878	494	483
acres treated, 2002	742	1,987	63,627	13,110	(D)	184,493	85,275	116,346
1997	927	2,782	70,094	11,604	(D)	231,539	86,206	134,462
Nematodes . . . . . farms, 2002	-	7	57	2	-	76	-	7
1997	1	1	45	3	-	18	9	52
acres treated, 2002	(D)	214	2,955	(D)	-	5,064	-	4,046
1997	(D)	13	3,925	1,916	-	3,880	(D)	12,372
Diseases in crops and orchards . . . . . farms, 2002	-	13	173	32	3	98	31	59
1997	-	6	278	8	-	43	35	69
acres treated, 2002	-	562	11,956	3,904	3	7,472	1,217	21,649
1997	-	(D)	20,310	1,648	-	4,065	1,021	24,605
Chemicals used to control growth, thin fruit, or defoliate . . . . . farms, 2002	-	1	53	7	-	34	13	18
1997	-	4	81	4	-	9	7	8
acres on which used, 2002	-	(D)	2,628	1,890	-	1,227	41	3,036
1997	-	409	3,539	(D)	-	(D)	335	4,725

See footnote(s) at end of table.

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**Table 39. Fertilizers and Chemicals Applied: 2002 and 1997 - Con.**

[Data are based on a sample of farms. For meaning of abbreviations and symbols, see introductory text]

Item	Sanilac	Schoolcraft	Shiawassee	Tuscola	Van Buren	Washtenaw	Wayne	Wexford
Commercial fertilizer, lime, and soil conditioners <sup>1</sup> . . . . . farms, 2002	901	33	542	730	663	539	104	117
1997	1,070	27	778	930	780	741	109	149
acres treated, 2002	311,386	3,422	149,977	243,723	94,218	110,847	10,438	7,179
1997	291,902	3,359	165,092	256,230	118,614	125,409	14,201	12,099
Cropland fertilized, except cropland pastured . . . . . farms, 2002	901	31	535	712	663	519	104	107
1997	1,051	26	776	915	769	732	96	146
acres treated, 2002	310,359	3,176	149,698	240,749	93,947	109,797	10,433	6,846
1997	288,936	2,825	164,809	254,674	117,317	124,270	14,006	11,803
Pastureland and rangeland fertilized . . . . . farms, 2002	40	13	44	92	46	77	5	21
1997	66	8	27	75	59	36	13	13
acres treated, 2002	1,027	246	279	2,974	271	1,050	5	333
1997	2,966	534	283	1,556	1,297	1,139	195	296
Manure . . . . . farms, 2002	469	15	184	324	152	236	43	73
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
acres treated, 2002	29,567	518	9,027	14,224	7,529	12,131	661	1,950
1997	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Chemicals used to control-								
Insects <sup>2</sup> . . . . . farms, 2002	191	10	113	234	492	162	34	38
1997	208	12	69	275	478	244	64	34
acres treated, 2002	38,443	560	9,869	39,679	42,847	20,575	858	3,097
1997	31,259	927	6,880	56,750	55,817	28,575	2,752	4,246
Weeds, grass, or brush . . . . . farms, 2002	734	13	428	570	563	388	54	58
1997	774	9	651	683	565	505	75	57
acres treated, 2002	242,877	1,151	138,091	189,757	58,103	97,352	6,086	2,732
1997	230,052	832	140,115	213,144	94,457	91,205	15,248	5,417
Nematodes . . . . . farms, 2002	1	-	24	17	56	18	16	13
1997	6	2	14	15	60	12	4	6
acres treated, 2002	(D)	-	3,336	596	2,299	3,890	125	195
1997	1,120	(D)	1,253	1,231	11,051	1,993	(D)	(D)
Diseases in crops and orchards . . . . . farms, 2002	47	3	29	86	339	33	20	10
1997	58	5	20	96	324	59	42	17
acres treated, 2002	10,579	(D)	955	15,090	24,725	858	331	793
1997	7,603	243	1,337	23,436	40,368	4,510	274	870
Chemicals used to control growth, thin fruit, or defoliate . . . . . farms, 2002	10	-	11	13	98	14	2	5
1997	17	3	38	16	106	4	3	-
acres on which used, 2002	783	-	115	520	4,500	194	(D)	13
1997	4,426	(D)	3,433	5,054	6,444	(D)	5	-

<sup>1</sup> Data for 1997 exclude lime.

<sup>2</sup> Data for 1997 include treatment of crops, including hay, but not other land.