

**Table 10. Agricultural Chemicals Used, Including Fertilizer: 1997 and 1992**

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

Chemicals used	Michigan	Alcona	Alger	Allegan	Alpena	Antrim	Arenac
Commercial fertilizer ..... farms, 1997..	29 377	89	35	903	204	158	208
..... 1992..	33 372	102	26	1 069	267	158	228
acres on which used, 1997..	5 612 394	6 873	2 186	148 662	37 182	15 215	50 468
..... 1992..	5 696 920	4 858	2 127	148 077	24 543	15 544	39 673
Cropland fertilized, except pastureland ..... farms, 1997..	28 874	89	35	876	204	147	208
..... 1992..	32 980	94	26	1 068	266	152	228
acres on which used, 1997..	5 563 658	6 457	(D)	148 160	36 380	14 701	50 198
..... 1992..	5 657 258	4 412	(D)	147 584	23 294	15 112	39 113
Pastureland and rangeland fertilized..... farms, 1997..	2 089	10	2	66	42	14	6
..... 1992..	1 662	15	2	39	44	9	7
acres on which used, 1997..	48 736	416	(D)	502	802	514	270
..... 1992..	39 662	446	(D)	493	1 249	432	560
Sprays, dusts, granules, fumigants, etc., to control—							
Insects on hay and other crops ..... farms, 1997..	9 816	9	8	471	50	70	71
..... 1992..	14 717	38	19	607	36	84	99
acres on which used, 1997..	1 252 567	856	251	48 093	5 713	6 149	7 826
..... 1992..	1 412 690	794	499	62 704	2 397	4 484	9 733
Nematodes in crops ..... farms, 1997..	1 010	—	—	67	12	4	5
..... 1992..	1 305	—	—	81	11	8	7
acres on which used, 1997..	122 416	—	—	5 583	3 728	(D)	(D)
..... 1992..	153 808	—	—	13 572	823	(D)	28
Diseases in crops and orchards..... farms, 1997..	4 101	6	4	161	14	49	11
..... 1992..	4 543	1	7	249	26	65	18
acres on which used, 1997..	369 437	72	(D)	9 506	825	4 517	1 458
..... 1992..	326 781	(D)	13	12 718	749	4 995	513
Weeds, grass, or brush in crops and pasture ..... farms, 1997..	20 327	50	22	554	120	93	159
..... 1992..	23 222	53	18	675	121	135	160
acres on which used, 1997..	4 321 549	2 890	1 221	113 098	21 909	7 145	39 110
..... 1992..	4 286 848	3 105	592	98 058	12 434	11 266	34 074
Chemicals used on crops to control growth, thin fruit, or defoliate ..... farms, 1997..	1 391	—	—	27	7	16	15
..... 1992..	1 567	—	5	49	1	20	—
acres on which used, 1997..	129 348	—	—	2 148	280	2 435	586
..... 1992..	99 465	—	82	2 389	(D)	2 543	—
Chemicals used	Baraga	Barry	Bay	Benzie	Berrien	Branch	Calhoun
Commercial fertilizer ..... farms, 1997..	28	449	563	84	864	598	674
..... 1992..	26	449	686	79	1 104	717	767
acres on which used, 1997..	881	75 328	135 581	5 250	108 847	114 955	129 421
..... 1992..	1 392	66 445	144 731	4 961	100 280	138 160	119 936
Cropland fertilized, except pastureland ..... farms, 1997..	27	433	563	84	864	579	662
..... 1992..	26	444	686	72	1 085	700	758
acres on which used, 1997..	(D)	73 700	135 453	5 198	108 536	114 031	127 418
..... 1992..	(D)	65 720	143 781	4 884	99 803	136 510	118 861
Pastureland and rangeland fertilized..... farms, 1997..	1	68	8	4	35	63	56
..... 1992..	2	26	15	8	24	38	51
acres on which used, 1997..	(D)	1 628	128	52	311	924	2 003
..... 1992..	(D)	725	950	77	477	1 650	1 075
Sprays, dusts, granules, fumigants, etc., to control—							
Insects on hay and other crops ..... farms, 1997..	3	125	226	45	535	180	254
..... 1992..	8	267	200	78	756	310	410
acres on which used, 1997..	75	14 229	24 926	3 775	40 931	35 512	40 075
..... 1992..	93	16 636	21 892	4 150	40 414	46 768	47 828
Nematodes in crops ..... farms, 1997..	—	10	20	8	49	11	32
..... 1992..	—	20	9	8	111	20	20
acres on which used, 1997..	—	1 445	504	153	2 453	1 554	2 164
..... 1992..	—	823	1 744	270	2 997	3 921	3 719
Diseases in crops and orchards..... farms, 1997..	1	15	88	46	434	46	26
..... 1992..	2	24	80	48	581	30	32
acres on which used, 1997..	(D)	951	5 472	3 791	22 757	2 682	1 164
..... 1992..	(D)	1 163	7 468	3 597	22 023	3 804	2 218
Weeds, grass, or brush in crops and pasture ..... farms, 1997..	5	299	447	48	599	440	507
..... 1992..	4	343	544	44	747	495	546
acres on which used, 1997..	333	50 138	112 054	4 081	91 297	99 728	96 403
..... 1992..	66	50 882	121 609	3 972	73 720	106 946	94 926
Chemicals used on crops to control growth, thin fruit, or defoliate ..... farms, 1997..	—	29	21	32	116	12	19
..... 1992..	1	19	12	22	131	6	32
acres on which used, 1997..	—	3 163	1 495	1 829	4 858	1 464	1 920
..... 1992..	(D)	397	1 203	1 347	3 851	626	3 211

**Table 10. Agricultural Chemicals Used, Including Fertilizer: 1997 and 1992—Con.**

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

Chemicals used	Cass	Charlevoix	Cheboygan	Chippewa	Clare	Clinton	Crawford
	Commercial fertilizer ..... farms, 1997..	520	100	128	151	159	804
..... farms, 1992..	566	83	106	156	179	973	8
acres on which used, 1997..	97 184	6 726	9 281	11 856	12 465	169 708	156
..... farms, 1992..	102 367	5 945	8 647	12 123	13 909	165 526	195
Cropland fertilized, except pastureland ..... farms, 1997..	505	90	123	141	151	790	8
..... farms, 1992..	558	75	106	156	169	967	8
acres on which used, 1997..	96 101	6 455	8 657	9 778	11 376	168 910	116
..... farms, 1992..	101 472	5 719	8 147	11 601	13 719	165 179	(D)
Pastureland and rangeland fertilized..... farms, 1997..	57	18	26	38	18	53	3
..... farms, 1992..	35	28	11	25	11	24	1
acres on which used, 1997..	1 083	271	624	2 078	1 089	798	40
..... farms, 1992..	895	226	500	522	190	347	(D)
Sprays, dusts, granules, fumigants, etc., to control—							
Insects on hay and other crops ..... farms, 1997..	177	16	22	3	7	204	2
..... farms, 1992..	364	71	32	57	68	329	3
acres on which used, 1997..	29 163	727	909	392	966	22 606	(D)
..... farms, 1992..	41 956	2 974	1 069	2 895	2 032	33 059	(D)
Nematodes in crops ..... farms, 1997..	14	1	1	—	7	27	—
..... farms, 1992..	46	—	—	—	10	17	—
acres on which used, 1997..	1 654	(D)	(D)	—	144	2 039	—
..... farms, 1992..	5 401	—	—	—	1 890	1 736	—
Diseases in crops and orchards..... farms, 1997..	43	8	5	—	6	33	1
..... farms, 1992..	60	17	1	—	7	31	1
acres on which used, 1997..	3 464	(D)	(D)	—	558	942	(D)
..... farms, 1992..	4 039	680	(D)	—	46	787	(D)
Weeds, grass, or brush in crops and pasture ..... farms, 1997..	346	57	44	45	79	622	4
..... farms, 1992..	403	44	55	35	76	756	5
acres on which used, 1997..	79 916	3 114	2 916	1 994	6 240	134 617	59
..... farms, 1992..	90 622	3 443	2 865	6 236	5 219	126 207	72
Chemicals used on crops to control growth, thin fruit, or defoliate ..... farms, 1997..	15	8	1	1	6	40	—
..... farms, 1992..	31	—	—	8	1	19	—
acres on which used, 1997..	1 416	101	(D)	(D)	60	2 913	—
..... farms, 1992..	2 105	—	—	120	(D)	1 455	—
Chemicals used							
	Delta	Dickinson	Eaton	Emmet	Genesee	Gladwin	Gogebic
Commercial fertilizer ..... farms, 1997..	144	62	667	124	338	235	8
..... farms, 1992..	156	55	830	125	499	224	15
acres on which used, 1997..	15 191	5 155	146 497	8 268	69 294	18 030	(D)
..... farms, 1992..	18 947	6 147	151 559	9 711	84 336	14 651	258
Cropland fertilized, except pastureland ..... farms, 1997..	143	59	653	120	337	217	7
..... farms, 1992..	156	55	830	111	499	224	14
acres on which used, 1997..	13 916	5 015	144 979	7 591	69 190	17 639	(D)
..... farms, 1992..	17 010	6 053	151 054	8 641	84 290	14 315	(D)
Pastureland and rangeland fertilized..... farms, 1997..	27	6	62	31	14	29	1
..... farms, 1992..	50	7	33	30	10	24	1
acres on which used, 1997..	1 275	140	1 518	677	104	391	(D)
..... farms, 1992..	1 937	94	505	1 070	46	336	(D)
Sprays, dusts, granules, fumigants, etc., to control—							
Insects on hay and other crops ..... farms, 1997..	39	17	190	26	97	41	—
..... farms, 1992..	64	26	299	62	285	42	9
acres on which used, 1997..	1 823	1 201	18 062	922	7 017	1 288	—
..... farms, 1992..	3 388	1 922	31 912	1 789	21 335	2 481	362
Nematodes in crops ..... farms, 1997..	1	2	29	1	6	12	—
..... farms, 1992..	13	8	28	1	25	—	—
acres on which used, 1997..	(D)	(D)	3 373	(D)	720	459	—
..... farms, 1992..	1 196	730	3 323	(D)	1 907	—	—
Diseases in crops and orchards..... farms, 1997..	8	16	33	12	26	11	—
..... farms, 1992..	22	15	42	11	70	1	1
acres on which used, 1997..	1 301	728	1 426	43	939	420	—
..... farms, 1992..	1 875	1 357	2 151	488	1 923	(D)	(D)
Weeds, grass, or brush in crops and pasture ..... farms, 1997..	56	37	525	64	244	131	5
..... farms, 1992..	89	31	533	50	385	106	3
acres on which used, 1997..	6 956	2 186	107 991	4 694	58 633	9 816	90
..... farms, 1992..	11 306	3 073	105 662	5 619	64 452	7 305	36
Chemicals used on crops to control growth, thin fruit, or defoliate ..... farms, 1997..	2	3	10	—	1	2	—
..... farms, 1992..	24	7	27	2	11	—	1
acres on which used, 1997..	(D)	(D)	(D)	—	(D)	(D)	—
..... farms, 1992..	1 284	638	1 436	(D)	(D)	—	(D)

**Table 10. Agricultural Chemicals Used, Including Fertilizer: 1997 and 1992—Con.**

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

Chemicals used	Grand Traverse								
	Grand Traverse	Gratiot	Hillsdale	Houghton	Huron	Ingham	Ionia	Iosco	
Commercial fertilizer ..... farms, 1997..	270	611	645	58	878	560	639	121	
..... farms, 1992..	311	695	784	70	1 161	625	742	140	
acres on which used, 1997..	25 392	215 960	138 517	3 325	333 081	123 483	149 051	10 350	
..... acres on which used, 1992..	25 504	204 499	144 815	2 217	356 504	126 389	162 817	14 146	
Cropland fertilized, except pastureland ..... farms, 1997..	270	595	637	54	878	545	639	121	
..... farms, 1992..	297	695	782	70	1 161	618	737	128	
acres on which used, 1997..	(D)	215 126	137 981	3 051	333 488	122 468	148 147	9 990	
..... acres on which used, 1992..	24 996	204 437	144 091	2 031	356 265	125 900	162 197	13 485	
Pastureland and rangeland fertilized..... farms, 1997..	2	37	22	9	31	71	32	13	
..... farms, 1992..	16	3	18	5	11	27	21	37	
acres on which used, 1997..	(D)	834	536	274	593	1 015	904	360	
..... acres on which used, 1992..	508	62	724	186	239	489	620	661	
Sprays, dusts, granules, fumigants, etc., to control—									
Insects on hay and other crops ..... farms, 1997..	157	195	161	8	383	121	255	11	
..... farms, 1992..	227	164	261	50	322	211	239	34	
acres on which used, 1997..	8 351	28 582	24 393	40	73 040	19 065	30 548	1 209	
..... acres on which used, 1992..	11 625	30 571	33 111	1 358	48 207	36 091	28 885	1 451	
Nematodes in crops ..... farms, 1997..	7	21	22	—	17	18	16	1	
..... farms, 1992..	18	5	15	1	21	48	50	—	
acres on which used, 1997..	62	1 733	2 915	—	1 238	2 779	1 842	(D)	
..... acres on which used, 1992..	285	628	4 741	(D)	5 678	6 488	6 527	—	
Diseases in crops and orchards..... farms, 1997..	118	5	27	4	111	42	58	10	
..... farms, 1992..	165	19	24	4	30	63	51	6	
acres on which used, 1997..	6 289	361	2 497	20	21 199	3 353	4 762	440	
..... acres on which used, 1992..	8 578	1 284	467	87	3 568	5 835	5 488	6	
Weeds, grass, or brush in crops and pasture ..... farms, 1997..	160	510	530	24	725	382	502	67	
..... farms, 1992..	214	598	597	28	877	434	590	83	
acres on which used, 1997..	17 508	174 490	126 569	526	271 336	102 413	112 397	6 996	
..... acres on which used, 1992..	14 416	175 727	123 365	633	280 712	85 012	124 559	5 707	
Chemicals used on crops to control growth, thin fruit, or defoliate ..... farms, 1997..	51	5	39	—	30	11	27	5	
..... farms, 1992..	66	1	10	3	8	48	36	6	
acres on which used, 1997..	2 485	978	2 305	—	3 938	1 018	1 791	128	
..... acres on which used, 1992..	1 259	(D)	1 082	15	1 350	2 780	1 592	30	

  

Chemicals used	Grand Traverse								
	Iron	Isabella	Jackson	Kalamazoo	Kalkaska	Kent	Keweenaw	Lake	
Commercial fertilizer ..... farms, 1997..	37	660	592	455	78	711	1	59	
..... farms, 1992..	39	635	668	510	48	829	—	40	
acres on which used, 1997..	3 001	126 710	99 120	90 522	6 108	102 100	(D)	2 997	
..... acres on which used, 1992..	3 095	107 097	106 671	92 026	4 131	105 279	—	2 149	
Cropland fertilized, except pastureland ..... farms, 1997..	34	660	592	455	76	694	1	59	
..... farms, 1992..	39	635	656	494	47	828	—	40	
acres on which used, 1997..	2 512	125 667	98 126	90 175	6 027	101 001	(D)	2 672	
..... acres on which used, 1992..	2 833	106 780	105 704	90 845	4 023	104 377	—	(D)	
Pastureland and rangeland fertilized..... farms, 1997..	7	30	36	16	6	45	—	10	
..... farms, 1992..	11	17	39	37	7	41	—	2	
acres on which used, 1997..	489	1 043	994	347	81	1 099	—	325	
..... acres on which used, 1992..	262	317	967	1 181	108	902	—	(D)	
Sprays, dusts, granules, fumigants, etc., to control—									
Insects on hay and other crops ..... farms, 1997..	8	159	183	191	26	351	—	4	
..... farms, 1992..	12	170	376	259	22	534	1	26	
acres on which used, 1997..	437	22 534	23 606	33 132	2 215	37 111	—	70	
..... acres on which used, 1992..	735	20 646	43 627	35 977	1 168	43 770	(D)	309	
Nematodes in crops ..... farms, 1997..	1	3	26	24	3	27	—	1	
..... farms, 1992..	1	23	27	37	3	37	—	—	
acres on which used, 1997..	(D)	670	2 259	1 404	191	2 347	—	(D)	
..... acres on which used, 1992..	(D)	3 104	5 684	4 325	(D)	4 501	—	—	
Diseases in crops and orchards..... farms, 1997..	7	30	28	86	9	195	—	—	
..... farms, 1992..	5	30	27	94	7	201	—	5	
acres on which used, 1997..	456	5 972	594	4 007	561	13 732	—	—	
..... acres on which used, 1992..	574	885	1 211	5 719	(D)	16 360	—	50	
Weeds, grass, or brush in crops and pasture ..... farms, 1997..	18	439	412	292	25	436	—	19	
..... farms, 1992..	8	385	433	364	23	507	—	18	
acres on which used, 1997..	1 402	77 266	76 380	74 087	2 131	67 822	—	912	
..... acres on which used, 1992..	791	58 860	78 407	73 757	2 026	64 547	—	967	
Chemicals used on crops to control growth, thin fruit, or defoliate ..... farms, 1997..	3	9	6	40	1	88	—	—	
..... farms, 1992..	2	18	24	34	2	74	—	—	
acres on which used, 1997..	255	1 003	144	4 728	(D)	7 939	—	—	
..... acres on which used, 1992..	(D)	121	277	714	(D)	5 993	—	—	

**Table 10. Agricultural Chemicals Used, Including Fertilizer: 1997 and 1992—Con.**

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

Chemicals used	Lapeer	Leelanau	Lenawee	Livingston	Luce	Mackinac	Macomb	Manistee
	Commercial fertilizer ..... farms, 1997..	583	316	801	343	18	29	342
..... 1992..	701	292	991	396	14	36	413	178
acres on which used, 1997..	91 176	25 001	234 238	60 835	1 786	2 453	34 294	12 560
..... 1992..	107 342	24 365	244 448	59 463	1 061	3 432	60 866	9 557
Cropland fertilized, except pastureland ..... farms, 1997..	569	309	794	329	16	29	334	171
..... 1992..	692	292	991	390	13	34	413	172
acres on which used, 1997..	90 047	24 920	233 934	60 222	(D)	(D)	34 071	12 560
..... 1992..	106 919	24 126	244 379	59 047	(D)	3 047	60 744	9 481
Pastureland and rangeland fertilized..... farms, 1997..	46	13	23	37	3	2	39	—
..... 1992..	39	10	16	19	1	5	16	10
acres on which used, 1997..	1 129	81	304	613	(D)	(D)	223	—
..... 1992..	423	239	69	416	(D)	385	122	76
Sprays, dusts, granules, fumigants, etc., to control—								
Insects on hay and other crops ..... farms, 1997..	158	215	231	98	8	10	96	84
..... 1992..	321	236	408	180	6	28	244	99
acres on which used, 1997..	22 286	16 111	35 012	17 753	925	(D)	4 298	8 095
..... 1992..	32 664	15 071	54 687	20 132	(D)	1 544	10 730	5 438
Nematodes in crops ..... farms, 1997..	9	33	10	18	—	1	10	7
..... 1992..	24	44	16	5	—	—	12	5
acres on which used, 1997..	908	645	6 163	4 061	—	(D)	566	1 433
..... 1992..	4 244	1 130	1 951	500	—	—	213	345
Diseases in crops and orchards..... farms, 1997..	53	202	51	39	4	4	79	76
..... 1992..	82	231	114	33	3	3	74	42
acres on which used, 1997..	4 023	16 467	7 456	1 256	(D)	(D)	4 397	6 315
..... 1992..	6 866	15 461	9 540	1 383	(D)	8	2 102	2 998
Weeds, grass, or brush in crops and pasture ..... farms, 1997..	358	232	645	223	8	11	166	111
..... 1992..	457	210	802	267	10	11	285	98
acres on which used, 1997..	69 717	14 815	206 084	36 625	(D)	1 290	21 643	13 116
..... 1992..	85 859	16 875	200 195	42 968	827	1 016	49 270	5 387
Chemicals used on crops to control growth, thin fruit, or defoliate ..... farms, 1997..	18	96	17	33	1	—	12	39
..... 1992..	51	103	45	14	—	1	29	9
acres on which used, 1997..	372	6 833	3 747	1 579	(D)	—	1 888	1 649
..... 1992..	2 997	7 296	2 873	914	—	(D)	522	646

  

Chemicals used	Marquette	Mason	Mecosta	Menominee	Midland	Missaukee	Monroe	Montcalm
	Commercial fertilizer ..... farms, 1997..	45	259	348	238	281	182	761
..... 1992..	37	258	367	210	282	168	895	620
acres on which used, 1997..	4 303	37 895	36 066	32 717	56 905	35 552	167 422	140 658
..... 1992..	3 253	30 983	36 452	32 290	56 051	35 068	162 590	139 222
Cropland fertilized, except pastureland ..... farms, 1997..	45	259	342	232	271	171	755	598
..... 1992..	33	258	351	210	282	167	889	613
acres on which used, 1997..	4 268	37 491	35 377	31 707	56 425	34 688	167 104	139 500
..... 1992..	2 795	30 943	34 097	31 371	55 666	34 827	162 522	138 046
Pastureland and rangeland fertilized..... farms, 1997..	3	15	40	33	33	23	21	59
..... 1992..	9	5	63	22	21	12	16	32
acres on which used, 1997..	35	404	689	1 010	480	864	318	1 158
..... 1992..	458	40	2 355	919	385	241	68	1 176
Sprays, dusts, granules, fumigants, etc., to control—								
Insects on hay and other crops ..... farms, 1997..	8	161	38	22	55	53	258	142
..... 1992..	18	195	131	29	105	58	271	256
acres on which used, 1997..	494	14 376	5 812	1 446	4 742	4 885	25 526	38 202
..... 1992..	317	12 564	7 790	740	8 146	4 059	26 549	39 616
Nematodes in crops ..... farms, 1997..	—	20	9	3	—	2	30	45
..... 1992..	1	24	1	—	7	2	11	65
acres on which used, 1997..	—	257	1 514	61	—	(D)	1 859	12 839
..... 1992..	(D)	649	(D)	—	91	(D)	1 582	11 673
Diseases in crops and orchards..... farms, 1997..	5	93	19	11	5	33	108	63
..... 1992..	9	95	29	17	10	3	64	80
acres on which used, 1997..	(D)	5 391	2 622	379	116	1 513	5 685	20 362
..... 1992..	283	6 837	1 377	432	(D)	200	5 761	17 254
Weeds, grass, or brush in crops and pasture ..... farms, 1997..	16	168	158	123	195	131	619	393
..... 1992..	15	181	233	132	181	91	763	470
acres on which used, 1997..	967	28 375	21 361	12 609	45 296	15 279	149 741	114 780
..... 1992..	947	21 337	18 725	11 299	47 992	14 781	159 306	103 696
Chemicals used on crops to control growth, thin fruit, or defoliate ..... farms, 1997..	2	25	3	6	8	2	21	28
..... 1992..	4	16	8	4	15	3	29	43
acres on which used, 1997..	(D)	2 428	1 010	42	24	(D)	1 599	12 101
..... 1992..	86	554	(D)	(D)	560	(D)	3 815	9 443

**Table 10. Agricultural Chemicals Used, Including Fertilizer: 1997 and 1992—Con.**

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

Chemicals used	Montmorency	Muskegon	Newaygo	Oakland	Oceana	Ogemaw	Ontonagon	Osceola
	Commercial fertilizer ..... farms, 1997..	57	267	446	167	444	178	41
..... 1992..	82	251	519	204	482	165	36	248
acres on which used, 1997..	5 825	35 113	54 751	22 655	53 832	28 746	2 892	27 939
..... 1992..	6 860	38 591	46 082	16 905	53 292	28 115	1 945	25 422
Cropland fertilized, except pastureland ..... farms, 1997..	52	267	441	161	435	177	39	268
..... 1992..	78	241	488	183	474	165	34	248
acres on which used, 1997..	5 690	34 823	54 060	22 631	53 573	28 349	(D)	27 632
..... 1992..	6 724	38 216	44 950	16 321	52 647	28 105	(D)	24 232
Pastureland and rangeland fertilized..... farms, 1997..	7	10	26	6	26	7	3	20
..... 1992..	6	24	79	29	18	10	2	41
acres on which used, 1997..	135	290	691	24	259	397	(D)	307
..... 1992..	136	375	1 132	584	645	10	(D)	1 190
Sprays, dusts, granules, fumigants, etc., to control—								
Insects on hay and other crops ..... farms, 1997..	4	132	147	103	265	39	5	24
..... 1992..	3	112	201	158	379	42	29	88
acres on which used, 1997..	384	9 867	16 179	5 874	32 646	2 261	528	2 279
..... 1992..	75	10 625	13 011	4 797	31 709	2 605	2 620	3 596
Nematodes in crops ..... farms, 1997..	—	12	15	17	9	—	—	18
..... 1992..	6	5	12	9	25	—	—	1
acres on which used, 1997..	—	374	2 077	2 339	480	—	—	909
..... 1992..	770	(D)	943	2 815	1 450	—	—	(D)
Diseases in crops and orchards..... farms, 1997..	1	75	54	41	243	7	—	25
..... 1992..	—	37	66	68	262	25	—	6
acres on which used, 1997..	(D)	5 617	5 653	543	25 042	380	—	1 111
..... 1992..	—	3 771	7 145	638	23 144	914	—	135
Weeds, grass, or brush in crops and pasture ..... farms, 1997..	25	174	280	99	319	84	8	128
..... 1992..	32	198	278	134	308	82	9	142
acres on which used, 1997..	3 330	27 735	31 151	13 998	32 238	12 928	376	8 333
..... 1992..	2 365	32 013	26 664	12 044	33 982	16 257	1 029	12 329
Chemicals used on crops to control growth, thin fruit, or defoliate ..... farms, 1997..	—	38	7	2	57	1	—	—
..... 1992..	2	4	15	29	50	11	2	3
acres on which used, 1997..	—	1 643	1 483	(D)	4 272	(D)	—	—
..... 1992..	(D)	(D)	698	436	3 691	90	(D)	409
Chemicals used	Oscoda	Otsego	Ottawa	Presque Isle	Roscommon	Saginaw	St. Clair	St. Joseph
Commercial fertilizer ..... farms, 1997..	45	93	900	192	17	944	583	582
..... 1992..	47	85	1 073	231	16	1 092	705	587
acres on which used, 1997..	3 748	5 862	97 354	25 122	485	241 809	97 862	157 616
..... 1992..	3 488	4 783	102 168	28 661	520	240 390	113 695	170 087
Cropland fertilized, except pastureland ..... farms, 1997..	43	90	894	187	17	944	576	556
..... 1992..	45	85	1 051	229	16	1 086	692	587
acres on which used, 1997..	3 377	5 832	96 677	23 973	435	241 700	97 235	156 051
..... 1992..	3 172	(D)	101 161	28 321	(D)	240 274	113 357	169 734
Pastureland and rangeland fertilized..... farms, 1997..	13	3	36	45	3	8	29	85
..... 1992..	11	5	56	6	1	13	27	25
acres on which used, 1997..	371	30	677	1 149	50	109	627	1 565
..... 1992..	316	(D)	1 007	340	(D)	116	338	353
Sprays, dusts, granules, fumigants, etc., to control—								
Insects on hay and other crops ..... farms, 1997..	3	13	459	40	4	167	75	316
..... 1992..	16	17	613	105	3	321	233	299
acres on which used, 1997..	(D)	1 157	41 564	4 185	67	27 053	4 572	101 179
..... 1992..	764	689	39 950	8 598	(D)	28 483	9 854	80 203
Nematodes in crops ..... farms, 1997..	1	1	43	3	—	17	8	48
..... 1992..	—	1	72	25	—	21	12	38
acres on which used, 1997..	(D)	(D)	4 096	1 916	—	3 380	(D)	11 463
..... 1992..	—	(D)	6 534	2 578	—	544	248	8 760
Diseases in crops and orchards..... farms, 1997..	—	6	254	6	—	42	29	64
..... 1992..	1	11	230	18	1	57	55	52
acres on which used, 1997..	(D)	507	18 923	1 383	—	4 060	887	22 864
..... 1992..	(D)	507	15 043	2 395	(D)	3 478	732	15 616
Weeds, grass, or brush in crops and pasture ..... farms, 1997..	23	52	633	91	3	805	439	429
..... 1992..	20	49	783	97	8	918	489	465
acres on which used, 1997..	876	2 657	68 685	10 261	(D)	221 180	80 975	125 560
..... 1992..	911	2 733	66 059	13 160	185	217 497	89 382	131 730
Chemicals used on crops to control growth, thin fruit, or defoliate ..... farms, 1997..	—	4	72	3	—	9	8	8
..... 1992..	4	2	74	24	—	34	4	7
acres on which used, 1997..	—	409	3 166	(D)	—	(D)	360	4 725
..... 1992..	193	(D)	2 893	1 735	—	2 402	13	1 305

**Table 10. Agricultural Chemicals Used, Including Fertilizer: 1997 and 1992—Con.**

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

Chemicals used	Sanilac	Schoolcraft	Shiawassee	Tuscola	Van Buren	Washtenaw	Wayne	Wexford
Commercial fertilizer ..... farms, 1997..	993	25	690	839	704	664	95	128
..... 1992..	1 167	24	867	881	881	681	169	71
acres on which used, 1997..	284 843	3 196	152 782	247 778	112 449	120 005	12 891	11 427
..... 1992..	318 066	2 410	157 793	243 046	99 534	108 623	10 121	7 493
Cropland fertilized, except pastureland ..... farms, 1997..	975	24	689	827	695	656	86	126
..... 1992..	1 164	22	867	870	881	676	169	69
acres on which used, 1997..	282 133	2 662	152 549	246 475	111 311	119 005	12 756	11 168
..... 1992..	316 602	1 965	(D)	242 648	98 897	108 418	(D)	7 271
Pastureland and rangeland fertilized..... farms, 1997..	61	8	20	59	49	31	9	10
..... 1992..	46	7	1	20	38	26	1	12
acres on which used, 1997..	2 710	534	233	1 303	1 138	1 000	135	259
..... 1992..	1 464	445	(D)	398	637	205	(D)	222
Sprays, dusts, granules, fumigants, etc., to control—								
Insects on hay and other crops ..... farms, 1997..	202	12	64	252	442	225	53	32
..... 1992..	244	22	268	217	739	356	98	38
acres on which used, 1997..	30 971	927	6 928	55 084	55 680	27 880	2 444	4 223
..... 1992..	38 637	783	25 415	38 068	58 580	27 715	1 680	824
Nematodes in crops ..... farms, 1997..	6	2	13	16	57	12	4	5
..... 1992..	21	—	16	9	46	33	7	—
acres on which used, 1997..	1 120	(D)	1 246	1 232	11 291	1 993	(D)	(D)
..... 1992..	3 115	—	3 227	4 134	3 130	3 348	75	—
Diseases in crops and orchards..... farms, 1997..	53	5	18	89	306	53	35	17
..... 1992..	60	7	28	38	369	45	40	5
acres on which used, 1997..	7 373	243	1 324	22 782	40 065	4 443	295	866
..... 1992..	9 773	22	2 767	4 766	36 116	3 367	172	164
Weeds, grass, or brush in crops and pasture ..... farms, 1997..	719	8	585	632	517	463	60	51
..... 1992..	869	16	699	698	556	453	63	35
acres on which used, 1997..	224 456	710	130 245	206 359	89 964	87 925	13 210	5 271
..... 1992..	237 411	806	122 556	201 205	68 088	72 948	7 102	4 659
Chemicals used on crops to control growth, thin fruit, or defoliate ..... farms, 1997..	17	3	31	17	98	4	3	—
..... 1992..	21	—	13	16	100	6	11	—
acres on which used, 1997..	4 616	(D)	2 978	5 055	6 354	(D)	5	—
..... 1992..	2 377	—	623	3 407	6 162	905	89	—