

Table 7. Agricultural Chemicals Used, Including Fertilizer and Lime: 1982 and 1978

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

Chemicals used	County							
	Michigan	Alcona	Alger	Allegan	Alpena	Antrim	Arenac	
Commercial fertilizer ----- farms, 1982..	43 029	127	40	1 406	325	145	279	
	1978..	138	49	1 595	303	198	394	
	acres on which used, 1982..	5 974 430	7 171	1 717	164 026	22 119	19 721	46 486
	1978..	5 632 416	5 442	2 910	142 431	16 788	24 148	51 798
Cropland fertilized, except pastureland ----- farms, 1982..	42 593	121	39	1 378	317	145	278	
	1978..	138	49	1 595	303	197	394	
	acres on which used, 1982..	5 928 803	6 719	1 684	163 490	21 485	19 312	46 291
	1978..	5 584 239	4 964	2 839	141 501	15 328	23 024	51 473
Pastureland and rangeland fertilized ----- farms, 1982..	1 983	8	4	78	36	23	7	
	1978..	1 989	22	3	38	35	7	
	acres on which used, 1982..	45 627	452	33	536	634	409	195
	1978..	48 177	478	71	930	1 460	1 124	325
Lime ----- farms, 1982..	6 756	8	9	338	1	45	5	
	1978..	7 505	14	6	387	10	42	28
	acres on which used, 1982..	252 990	160	164	13 417	(D)	2 297	210
	1978..	239 591	267	95	9 850	350	2 235	742
tons, 1982..	508 841	516	399	25 025	(D)	4 076	312	
1978..	520 529	615	172	22 146	350	3 870	1 495	
Sprays, dusts, granules, fumigants, etc., to control—								
	insects on hay and other crops ----- farms, 1982..	15 597	23	9	736	53	79	82
	1978..	16 857	8	11	744	65	93	95
	acres on which used, 1982..	1 811 518	(D)	251	80 369	3 990	6 799	10 922
1978..	1 514 374	480	201	48 865	4 111	7 135	6 899	
Nematodes in crops ----- farms, 1982..	2 477	-	1	102	7	18	31	
	1978..	2 561	10	-	88	10	12	
	acres on which used, 1982..	275 551	-	(D)	8 689	267	1 269	2 177
	1978..	223 506	550	-	7 007	185	815	1 255
Diseases in crops and orchards ----- farms, 1982..	5 399	6	4	198	23	58	49	
	1978..	7 015	6	8	331	18	97	34
	acres on which used, 1982..	345 088	6	16	12 054	786	5 124	4 129
	1978..	408 601	233	223	14 795	550	5 421	1 813
Weeds, grass, or brush in crops and pasture ----- farms, 1982..	30 440	38	24	949	133	111	186	
	1978..	31 861	70	27	1 131	93	100	247
	acres on which used, 1982..	4 288 784	3 114	822	107 671	10 784	12 160	36 333
	1978..	3 629 396	2 691	965	89 989	6 556	10 326	33 171
Chemicals used for defoliation or for growth control of crops or thinning of fruit ----- farms, 1982..	2 001	-	-	83	10	23	9	
	1978..	1 986	-	-	92	1	38	
	acres on which used, 1982..	127 566	-	-	3 841	(D)	1 741	500
	1978..	89 418	-	-	2 484	(D)	2 017	-
Chemicals used								
	Baraga	Barry	Bay	Benzie	Berrien	Branch	Calhoun	
Commercial fertilizer ----- farms, 1982..	35	673	933	135	1 406	888	928	
	1978..	49	728	1 094	116	1 549	1 022	
	acres on which used, 1982..	1 041	79 202	147 340	6 858	110 697	132 981	149 674
	1978..	1 586	72 250	142 384	6 401	103 843	138 878	126 339
Cropland fertilized, except pastureland ----- farms, 1982..	35	665	933	135	1 395	888	920	
	1978..	48	728	1 094	114	1 537	1 017	
	acres on which used, 1982..	987	78 671	147 088	6 793	109 195	132 416	148 731
	1978..	1 361	70 951	142 324	6 309	103 079	138 432	125 250
Pastureland and rangeland fertilized ----- farms, 1982..	5	29	12	4	76	48	57	
	1978..	10	56	5	6	50	65	
	acres on which used, 1982..	54	531	252	65	1 502	565	943
	1978..	225	1 299	60	92	764	446	1 089
Lime ----- farms, 1982..	10	110	22	18	363	226	305	
	1978..	31	190	12	31	290	312	
	acres on which used, 1982..	97	3 919	1 096	587	9 965	10 260	14 665
	1978..	432	5 346	435	955	7 383	7 182	10 965
tons, 1982..	289	8 954	1 452	902	18 434	28 347	28 448	
1978..	1 490	11 204	670	2 700	16 404	17 479	25 863	
Sprays, dusts, granules, fumigants, etc., to control—								
	insects on hay and other crops ----- farms, 1982..	6	252	291	107	984	351	447
	1978..	19	256	314	37	859	301	438
	acres on which used, 1982..	77	28 180	29 511	4 391	59 509	49 036	66 011
1978..	801	18 603	23 315	1 643	42 981	43 947	48 523	
Nematodes in crops ----- farms, 1982..	2	43	52	30	119	50	51	
	1978..	-	27	31	16	104	50	73
	acres on which used, 1982..	(D)	3 436	6 586	900	7 021	8 232	8 884
	1978..	-	2 309	3 003	194	2 929	6 015	11 495
Diseases in crops and orchards ----- farms, 1982..	2	30	168	68	673	26	55	
	1978..	12	63	113	86	959	35	63
	acres on which used, 1982..	(D)	5 373	11 107	3 142	31 872	942	3 838
	1978..	192	1 776	6 861	4 248	37 058	3 181	5 727
Weeds, grass, or brush in crops and pasture ----- farms, 1982..	13	482	708	86	894	682	690	
	1978..	30	541	850	62	849	727	712
	acres on which used, 1982..	277	51 552	114 093	4 750	74 903	100 949	102 710
	1978..	830	42 014	113 272	2 961	50 392	90 230	69 229
Chemicals used for defoliation or for growth control of crops or thinning of fruit ----- farms, 1982..	-	25	24	29	250	38	32	
	1978..	4	1	18	35	188	27	30
	acres on which used, 1982..	-	1 329	1 713	1 367	12 077	1 403	1 542
	1978..	50	(D)	271	651	5 137	1 554	1 199

Table 7. Agricultural Chemicals Used, Including Fertilizer and Lime: 1982 and 1978—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, 1982..	789	153	121	231	178	1 191	11
1978..	836	196	132	254	181	1 246	10
acres on which used, 1982..	105 654	13 133	6 571	15 526	22 519	175 055	(D)
1978..	104 832	12 784	9 714	17 919	13 480	153 977	131
Cropland fertilized, except pastureland ----- farms, 1982..	758	143	121	225	171	1 190	11
1978..	832	196	132	254	174	1 246	10
acres on which used, 1982..	103 117	11 615	5 765	12 847	21 849	173 985	124
1978..	103 005	11 834	9 348	16 647	12 830	153 189	(D)
Pastureland and rangeland fertilized ----- farms, 1982..	70	31	22	45	15	48	2
1978..	61	20	11	38	9	42	1
acres on which used, 1982..	2 537	1 518	806	2 679	670	1 070	(D)
1978..	1 827	950	366	1 272	650	788	(D)
Lime ----- farms, 1982..	211	12	25	27	16	105	4
1978..	222	9	3	16	23	162	2
acres on which used, 1982..	9 630	159	1 066	568	638	5 622	29
1978..	9 293	175	21	120	254	5 215	(D)
tons, 1982..	20 463	301	3 347	744	1 062	9 749	(D)
1978..	26 789	329	66	265	668	9 779	(D)
Sprays, dusts, granules, fumigants, etc., to control—							
insects on hay and other crops ----- farms, 1982..	338	29	16	15	44	328	3
1978..	426	60	24	33	43	454	5
acres on which used, 1982..	51 496	4 172	255	261	6 112	37 476	7
1978..	35 718	2 788	2 800	3 427	3 692	32 575	110
Nematodes in crops ----- farms, 1982..	62	5	5	-	2	53	1
1978..	108	-	1	14	2	63	1
acres on which used, 1982..	11 953	505	100	-	(D)	6 775	(D)
1978..	7 908	-	(D)	1 517	(D)	7 291	(D)
Diseases in crops and orchards ----- farms, 1982..	88	17	1	6	1	65	1
1978..	119	8	2	20	6	87	1
acres on which used, 1982..	4 249	1 271	(D)	126	(D)	3 303	(D)
1978..	6 267	1 739	(D)	882	117	7 174	(D)
Weeds, grass, or brush in crops and pasture ----- farms, 1982..	603	81	34	27	118	917	3
1978..	596	101	59	68	89	898	1
acres on which used, 1982..	82 796	4 333	2 332	1 476	12 107	121 386	(D)
1978..	68 786	5 763	6 528	3 308	6 883	95 484	(D)
Chemicals used for defoliation or for growth control of crops or thinning of fruit ----- farms, 1982..	40	11	1	-	-	65	1
1978..	48	10	-	8	5	25	-
acres on which used, 1982..	1 633	56	(D)	-	-	8 777	(D)
1978..	1 653	200	-	152	50	1 280	-

Chemicals used	Delta	Dickinson	Eaton	Emmet	Genesee	Gladwin	Gogebic
Commercial fertilizer ----- farms, 1982..	191	71	1 063	126	752	292	32
1978..	231	77	1 122	169	766	323	31
acres on which used, 1982..	16 999	5 685	149 547	7 059	110 172	24 458	888
1978..	18 584	5 425	132 455	8 361	86 281	27 278	658
Cropland fertilized, except pastureland ----- farms, 1982..	184	71	1 057	126	752	292	31
1978..	231	77	1 117	169	766	323	31
acres on which used, 1982..	16 043	5 661	148 569	6 999	109 622	24 196	844
1978..	16 995	5 383	131 705	8 221	86 110	27 176	580
Pastureland and rangeland fertilized ----- farms, 1982..	39	4	60	6	20	14	5
1978..	58	5	56	12	12	7	6
acres on which used, 1982..	956	24	978	60	550	262	44
1978..	1 589	42	750	140	171	102	78
Lime ----- farms, 1982..	16	6	169	17	48	7	10
1978..	14	7	155	33	60	28	13
acres on which used, 1982..	250	350	6 325	835	4 533	121	62
1978..	400	357	4 425	652	2 024	522	191
tons, 1982..	422	296	16 573	1 385	8 965	141	104
1978..	830	447	10 181	1 599	4 008	622	544
Sprays, dusts, granules, fumigants, etc., to control—							
insects on hay and other crops ----- farms, 1982..	34	17	271	36	235	23	2
1978..	57	21	420	42	230	85	1
acres on which used, 1982..	1 333	1 523	39 896	1 400	35 635	3 251	(D)
1978..	3 746	1 491	39 444	1 906	28 841	6 601	(D)
Nematodes in crops ----- farms, 1982..	2	5	40	2	19	6	-
1978..	2	3	64	1	17	-	-
acres on which used, 1982..	(D)	266	5 906	(D)	3 427	600	-
1978..	(D)	289	7 361	(D)	2 610	-	-
Diseases in crops and orchards ----- farms, 1982..	19	15	15	12	88	10	2
1978..	50	17	93	8	81	11	1
acres on which used, 1982..	652	1 211	2 867	462	4 526	432	(D)
1978..	2 078	1 189	6 835	680	5 688	2 060	(D)
Weeds, grass, or brush in crops and pasture ----- farms, 1982..	102	44	747	80	508	209	8
1978..	105	47	820	84	489	194	20
acres on which used, 1982..	10 475	3 461	107 751	4 989	81 978	17 289	(D)
1978..	9 213	3 339	77 188	5 018	54 211	15 605	(D)
Chemicals used for defoliation or for growth control of crops or thinning of fruit ----- farms, 1982..	2	2	8	12	24	2	-
1978..	16	5	21	5	39	5	-
acres on which used, 1982..	(D)	(D)	300	456	1 999	(D)	-
1978..	468	305	1 310	220	1 784	800	-

Table 7. Agricultural Chemicals Used, Including Fertilizer and Lime: 1982 and 1978—Con.

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

Chemicals used	Grand Traverse	Gratiot	Hillsdale	Houghton	Huron	Ingham	Ionia	Iosco
Commercial fertilizer ----- farms, 1982..	362	1 028	1 023	123	1 458	758	902	184
1978..	387	1 163	1 209	152	1 540	882	1 042	158
acres on which used, 1982..	32 308	200 216	158 629	5 081	336 077	142 494	143 147	20 577
1978..	28 439	191 448	146 472	4 016	279 951	134 167	128 527	15 140
Cropland fertilized, except pastureland ----- farms, 1982..	362	1 016	1 016	123	1 440	736	902	184
1978..	387	1 163	1 209	152	1 540	877	1 042	158
acres on which used, 1982..	31 588	199 860	156 452	5 021	335 397	140 951	142 420	18 889
1978..	28 063	190 664	145 990	4 016	279 258	133 441	127 975	14 460
Pastureland and rangeland fertilized ----- farms, 1982..	11	28	27	6	37	51	40	28
1978..	9	31	45	-	33	47	40	8
acres on which used, 1982..	720	356	2 177	60	680	1 543	727	1 688
1978..	376	784	482	-	693	726	552	680
Lime ----- farms, 1982..	53	125	121	49	21	186	229	9
1978..	72	93	252	47	33	193	215	10
acres on which used, 1982..	1 755	4 045	5 291	970	1 072	9 111	8 666	489
1978..	2 800	2 464	6 825	735	932	5 772	6 102	474
tons, 1982..	3 416	6 835	11 045	1 921	1 330	19 299	15 998	656
1978..	6 602	6 426	13 470	2 641	3 664	15 614	12 026	894
Sprays, dusts, granules, fumigants, etc., to control—								
Insects on hay and other crops ----- farms, 1982..	204	234	381	33	458	321	404	58
1978..	145	349	437	42	372	323	406	70
acres on which used, 1982..	15 993	44 103	57 180	827	82 742	48 528	46 981	4 459
1978..	10 689	52 625	49 414	900	54 638	53 713	38 380	2 162
Nematodes in crops ----- farms, 1982..	30	30	51	-	67	57	94	24
1978..	36	42	79	-	46	75	80	-
acres on which used, 1982..	572	3 220	12 732	-	10 897	6 525	13 174	762
1978..	340	4 908	5 808	-	5 693	8 995	5 059	-
Diseases in crops and orchards ----- farms, 1982..	173	17	32	1	42	61	118	35
1978..	246	62	52	36	93	83	90	-
acres on which used, 1982..	9 243	2 428	3 148	(D)	5 533	2 808	6 133	687
1978..	15 123	2 693	2 122	335	6 496	6 927	6 112	-
Weeds, grass, or brush in crops and pasture ----- farms, 1982..	224	810	851	35	1 108	608	695	90
1978..	229	762	933	71	1 098	662	712	77
acres on which used, 1982..	18 447	171 322	118 513	902	237 630	103 732	99 587	11 845
1978..	15 676	130 841	109 231	1 599	182 882	87 616	79 515	7 756
Chemicals used for defoliation or for growth control of crops or thinning of fruit ----- farms, 1982..	82	18	22	-	6	38	39	-
1978..	93	4	14	-	30	5	20	1
acres on which used, 1982..	4 778	2 114	1 563	-	3 887	775	1 735	-
1978..	2 179	800	771	-	4 560	476	1 042	(D)

Chemicals used	Iron	Isabella	Jackson	Kalamazoo	Kalkaska	Kent	Keweenaw	Lake
Commercial fertilizer ----- farms, 1982..	48	792	925	609	61	1 097	1	58
1978..	45	800	906	711	58	1 147	1	68
acres on which used, 1982..	2 979	113 437	125 446	100 960	6 220	122 384	(D)	3 073
1978..	2 159	114 615	121 088	105 061	5 234	124 329	(D)	2 487
Cropland fertilized, except pastureland ----- farms, 1982..	47	792	920	601	59	1 066	-	58
1978..	45	800	906	705	58	1 146	1	68
acres on which used, 1982..	(D)	113 197	124 105	100 558	6 137	121 867	-	3 073
1978..	2 045	114 329	118 132	104 221	5 138	123 053	(D)	2 316
Pastureland and rangeland fertilized ----- farms, 1982..	3	8	17	22	4	55	1	-
1978..	5	18	54	40	5	42	-	10
acres on which used, 1982..	(D)	240	1 341	402	83	517	(D)	-
1978..	114	286	2 956	840	96	1 276	-	171
Lime ----- farms, 1982..	16	123	203	125	21	339	-	12
1978..	12	90	207	177	21	300	1	14
acres on which used, 1982..	750	4 165	9 157	6 718	410	8 273	-	316
1978..	537	2 276	7 038	8 009	280	10 493	(D)	182
tons, 1982..	744	7 958	19 730	14 840	840	17 736	-	608
1978..	780	4 068	14 081	19 269	824	21 557	(D)	408
Sprays, dusts, granules, fumigants, etc., to control—								
Insects on hay and other crops ----- farms, 1982..	10	216	396	316	13	520	-	5
1978..	15	274	442	370	14	625	1	9
acres on which used, 1982..	1 384	31 072	63 045	40 021	978	49 297	-	86
1978..	1 070	20 141	51 005	41 120	1 162	44 096	(D)	342
Nematodes in crops ----- farms, 1982..	2	9	65	109	3	44	-	-
1978..	2	50	58	65	1	61	-	1
acres on which used, 1982..	(D)	2 286	9 536	10 703	(D)	3 358	-	-
1978..	(D)	6 024	9 946	6 033	(D)	4 265	-	(D)
Diseases in crops and orchards ----- farms, 1982..	7	54	43	147	7	277	-	-
1978..	7	51	98	133	-	333	1	5
acres on which used, 1982..	434	3 843	6 364	4 191	724	18 443	-	-
1978..	418	4 005	7 091	4 799	-	20 031	(D)	213
Weeds, grass, or brush in crops and pasture ----- farms, 1982..	17	584	661	408	33	725	-	38
1978..	24	504	649	489	41	687	-	32
acres on which used, 1982..	973	73 328	87 592	66 760	3 869	61 193	-	2 197
1978..	1 431	70 865	72 526	52 249	3 701	65 608	-	1 250
Chemicals used for defoliation or for growth control of crops or thinning of fruit ----- farms, 1982..	3	23	18	71	3	134	-	1
1978..	6	28	24	39	1	130	-	-
acres on which used, 1982..	(D)	690	460	3 293	(D)	5 394	-	(D)
1978..	313	1 500	605	646	(D)	6 286	-	-

Table 7. Agricultural Chemicals Used, Including Fertilizer and Lime: 1982 and 1978—Con.

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

Chemicals used	Counties								
	Lapeer	Leelanau	Lenawee	Livingston	Luce	Mackinac	Macomb	Manistee	
Commercial fertilizer ----- farms, 1982..	965	322	1 304	546	16	55	625	185	
	1978..	1 008	324	1 520	547	21	60	240	
	acres on which used, 1982..	116 478	28 977	262 481	64 870	917	3 753	58 505	11 620
	1978..	108 446	22 267	254 593	62 224	1 569	4 418	52 821	9 779
Cropland fertilized, except pastureland ----- farms, 1982..	955	322	1 289	536	16	53	625	185	
	1978..	1 003	324	1 516	547	21	60	240	
	acres on which used, 1982..	116 201	26 406	262 291	64 156	(D)	3 608	58 265	11 590
	1978..	107 082	22 135	253 684	61 562	1 339	4 292	52 665	9 173
Pastureland and rangeland fertilized ----- farms, 1982..	42	42	26	38	2	8	20	6	
	1978..	48	7	27	33	3	6	17	
	acres on which used, 1982..	277	2 571	190	714	(D)	145	240	30
	1978..	1 364	132	909	662	230	126	156	606
Lime ----- farms, 1982..	130	34	149	93	1	2	55	35	
	1978..	66	78	151	95	4	8	39	
	acres on which used, 1982..	3 544	828	7 332	2 974	(D)	3 039	967	
	1978..	1 927	3 307	8 070	2 980	(D)	189	1 178	852
Sprays, dusts, granules, fumigants, etc., to control—									
	acres on which used, 1982..	32 372	16 868	79 172	22 129	(D)	30	14 936	8 956
	1978..	29 412	10 961	71 831	21 228	319	1 702	13 654	2 779
Nematodes in crops ----- farms, 1982..	19	29	45	32	-	-	39	44	
	1978..	50	68	75	35	-	3	14	
	acres on which used, 1982..	1 193	980	6 178	7 048	-	-	1 161	1 698
	1978..	1 968	1 163	10 751	4 121	-	28	709	585
Diseases in crops and orchards ----- farms, 1982..	57	205	103	50	-	-	124	105	
	1978..	73	293	113	55	3	10	135	
	acres on which used, 1982..	6 318	13 153	7 937	1 024	-	-	3 172	5 910
	1978..	4 568	13 983	12 509	2 294	24	321	6 605	6 922
Weeds, grass, or brush in crops and pasture ----- farms, 1982..	661	192	1 079	343	11	19	417	108	
	1978..	540	167	1 125	377	12	25	457	
	acres on which used, 1982..	79 725	12 309	222 553	40 240	648	1 388	42 888	7 013
	1978..	62 826	11 237	193 388	32 193	686	1 876	35 841	4 385
Chemicals used for defoliation or for growth control of crops or thinning of fruit ----- farms, 1982..	40	64	56	8	-	-	39	22	
	1978..	9	56	35	5	4	6	35	
	acres on which used, 1982..	2 424	3 534	3 841	707	-	-	1 694	2 347
	1978..	162	1 937	975	290	37	79	919	2 119

Chemicals used	Counties								
	Marquette	Mason	Mecosta	Menominee	Midland	Missaukee	Monroe	Montcalm	
Commercial fertilizer ----- farms, 1982..	49	311	425	325	376	259	1 128	869	
	1978..	52	378	480	382	449	299	980	
	acres on which used, 1982..	2 752	38 831	41 525	36 856	61 111	38 735	170 726	125 820
	1978..	3 003	35 273	34 550	37 766	55 910	29 015	177 830	130 019
Cropland fertilized, except pastureland ----- farms, 1982..	45	307	419	316	371	258	1 106	863	
	1978..	52	378	480	382	449	299	1 277	
	acres on which used, 1982..	2 597	38 751	40 841	35 999	60 996	37 975	170 471	125 607
	1978..	2 753	35 038	34 258	36 984	55 477	28 234	177 640	129 769
Pastureland and rangeland fertilized ----- farms, 1982..	8	6	42	36	6	18	44	22	
	1978..	5	16	10	29	35	14	20	
	acres on which used, 1982..	155	80	684	857	115	760	255	
	1978..	250	235	292	782	433	781	190	250
Lime ----- farms, 1982..	4	68	172	12	10	75	64	254	
	1978..	13	74	114	15	8	107	121	
	acres on which used, 1982..	(D)	2 725	3 831	120	97	2 289	2 522	
	1978..	(D)	1 403	4 031	176	245	2 818	4 016	
Sprays, dusts, granules, fumigants, etc., to control—									
	acres on which used, 1982..	618	10 809	8 442	2 466	10 778	6 375	32 206	43 614
	1978..	625	12 855	6 897	5 188	7 819	6 850	42 109	29 259
Nematodes in crops ----- farms, 1982..	1	20	34	-	-	22	50	107	
	1978..	2	19	31	5	7	42	99	
	acres on which used, 1982..	(D)	1 685	4 738	-	-	514	10 617	
	1978..	(D)	1 266	1 406	240	336	540	4 104	
Diseases in crops and orchards ----- farms, 1982..	9	106	20	25	5	11	53	98	
	1978..	13	104	26	10	26	38	139	
	acres on which used, 1982..	448	7 467	1 947	496	1 253	421	4 155	
	1978..	410	6 305	3 266	116	100	3 989	9 050	
Weeds, grass, or brush in crops and pasture ----- farms, 1982..	22	240	248	208	268	160	892	609	
	1978..	23	257	329	241	356	206	948	
	acres on which used, 1982..	1 998	25 386	21 821	21 598	53 037	17 885	152 376	
	1978..	1 952	24 759	20 445	15 824	45 685	13 726	135 247	
Chemicals used for defoliation or for growth control of crops or thinning of fruit ----- farms, 1982..	3	38	4	-	2	-	14	51	
	1978..	2	48	18	4	-	14	41	
	acres on which used, 1982..	(D)	3 329	955	-	(D)	-	4 148	
	1978..	(D)	813	1 185	60	-	387	5 613	

Table 7. Agricultural Chemicals Used, Including Fertilizer and Lime: 1982 and 1978—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, 1982..	56	354	499	223	543	172	61	299
1978..	72	365	669	283	667	185	82	340
acres on which used, 1982..	7 986	39 171	42 633	19 258	52 160	18 950	1 802	25 473
1978..	5 037	38 855	50 008	25 863	53 876	19 263	3 104	22 971
Cropland fertilized, except pastureland ----- farms, 1982..	56	354	499	215	543	171	61	287
1978..	72	365	669	282	667	185	82	340
acres on which used, 1982..	7 946	39 069	42 561	18 847	51 895	18 339	1 802	24 817
1978..	(D)	38 743	49 586	25 723	53 492	(D)	(D)	22 516
Pastureland and rangeland fertilized ----- farms, 1982..	3	3	4	16	8	18	-	22
1978..	1	12	31	8	15	1	2	11
acres on which used, 1982..	40	102	72	411	265	611	-	656
1978..	(D)	112	422	140	384	(D)	(D)	455
Lime ----- farms, 1982..	2	84	82	65	186	5	8	108
1978..	4	90	181	23	215	6	24	120
acres on which used, 1982..	(D)	2 936	1 423	1 686	5 177	351	148	2 700
1978..	150	2 383	3 874	477	6 846	283	579	2 093
tons, 1982..	(D)	6 284	2 878	3 924	11 121	650	412	5 387
1978..	286	6 491	8 405	912	14 377	367	1 516	3 942
Sprays, dusts, granules, fumigants, etc., to control—								
Insects on hay and other crops ----- farms, 1982..	24	118	179	118	423	21	15	37
1978..	7	179	119	105	394	49	2	58
acres on which used, 1982..	1 870	15 180	13 535	7 204	35 810	2 717	1 600	2 693
1978..	808	17 503	7 548	4 952	24 336	2 783	(D)	4 082
Nematodes in crops ----- farms, 1982..	3	10	27	14	79	4	-	8
1978..	3	9	58	20	111	2	-	3
acres on which used, 1982..	57	(D)	1 622	(D)	2 579	463	-	428
1978..	260	869	1 472	2 832	2 160	(D)	-	343
Diseases in crops and orchards ----- farms, 1982..	2	89	62	60	242	2	-	16
1978..	3	61	89	86	306	1	10	17
acres on which used, 1982..	(D)	5 589	7 300	543	19 952	(D)	-	401
1978..	102	4 027	5 225	1 064	22 461	(D)	244	829
Weeds, grass, or brush in crops and pasture ----- farms, 1982..	28	190	355	170	408	96	7	182
1978..	36	242	429	202	398	112	27	191
acres on which used, 1982..	4 193	26 071	29 320	13 409	31 617	10 228	759	11 101
1978..	2 700	21 964	30 801	15 262	30 358	11 143	1 007	10 687
Chemicals used for defoliation or for growth control of crops or thinning of fruit ----- farms, 1982..	-	25	18	17	61	1	4	2
1978..	-	10	19	22	58	-	-	1
acres on which used, 1982..	-	1 309	947	316	4 934	(D)	120	(D)
1978..	-	1 080	669	399	2 209	-	-	(D)
Chemicals used	Oscoda	Otsego	Ottawa	Presque Isle	Roscommon	Saginaw	St. Clair	St. Joseph
Commercial fertilizer ----- farms, 1982..	54	98	1 273	232	16	1 461	927	781
1978..	51	96	1 253	294	11	1 596	934	857
acres on which used, 1982..	4 567	5 894	110 348	27 008	564	257 042	120 659	138 505
1978..	3 572	5 561	95 064	26 918	(D)	236 378	99 432	126 622
Cropland fertilized, except pastureland ----- farms, 1982..	52	98	1 257	225	14	1 461	920	777
1978..	49	96	1 239	294	10	1 596	930	852
acres on which used, 1982..	4 517	5 842	108 928	26 189	550	256 952	120 238	138 131
1978..	3 449	5 376	93 952	25 591	435	235 777	98 963	125 194
Pastureland and rangeland fertilized ----- farms, 1982..	5	4	105	41	3	8	41	24
1978..	7	8	76	62	2	34	34	54
acres on which used, 1982..	50	52	1 420	819	14	90	421	374
1978..	123	185	1 112	1 327	(D)	601	469	1 428
Lime ----- farms, 1982..	6	12	281	19	3	48	40	168
1978..	9	23	316	25	1	44	55	205
acres on which used, 1982..	101	183	6 345	381	24	1 596	1 089	9 792
1978..	212	472	5 427	686	(D)	1 866	1 716	10 577
tons, 1982..	244	413	12 431	813	(D)	2 170	1 425	20 239
1978..	487	1 359	11 455	1 175	(D)	3 525	4 245	21 139
Sprays, dusts, granules, fumigants, etc., to control—								
Insects on hay and other crops ----- farms, 1982..	2	16	565	78	1	322	162	362
1978..	5	46	579	135	-	392	177	426
acres on which used, 1982..	(D)	327	47 843	9 839	(D)	48 825	21 109	67 502
1978..	540	1 470	29 363	10 926	-	44 798	25 952	43 624
Nematodes in crops ----- farms, 1982..	1	3	115	4	-	12	14	88
1978..	-	-	89	13	-	65	27	68
acres on which used, 1982..	(D)	63	7 717	1 564	-	941	820	22 946
1978..	-	-	4 887	2 005	-	9 878	1 978	15 262
Diseases in crops and orchards ----- farms, 1982..	2	9	249	22	2	107	33	36
1978..	1	14	278	40	3	105	44	52
acres on which used, 1982..	(D)	293	12 131	2 829	(D)	5 918	2 391	4 768
1978..	(D)	819	12 080	2 041	82	13 003	3 557	5 846
Weeds, grass, or brush in crops and pasture ----- farms, 1982..	33	55	857	99	4	1 236	648	635
1978..	27	57	832	170	1	1 212	602	633
acres on which used, 1982..	1 701	3 384	69 560	11 541	436	220 790	102 899	107 926
1978..	1 274	2 758	53 226	14 876	(D)	184 731	71 627	87 714
Chemicals used for defoliation or for growth control of crops or thinning of fruit ----- farms, 1982..	-	4	52	4	1	14	11	20
1978..	-	8	42	28	1	13	-	20
acres on which used, 1982..	-	135	1 893	514	(D)	2 219	2 502	343
1978..	-	657	1 361	709	(D)	2 976	-	233

Table 7. Agricultural Chemicals Used, Including Fertilizer and Lime: 1982 and 1978—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, 1982--	1 498	38	1 049	1 233	1 136	885	322	109
1978--	1 671	35	1 194	1 389	1 249	1 088	256	132
acres on which used, 1982--	296 265	2 449	162 617	254 286	98 810	136 583	25 362	6 608
1978--	284 263	2 377	153 462	265 514	101 250	137 344	17 072	8 436
Cropland fertilized, except pastureland ----- farms, 1982--	1 498	38	1 043	1 233	1 128	871	314	109
1978--	1 670	34	1 194	1 389	1 244	1 084	256	132
acres on which used, 1982--	295 038	2 196	161 766	254 166	97 751	136 251	25 322	6 608
1978--	281 119	2 108	152 669	265 021	100 493	136 355	17 024	8 211
Pastureland and rangeland fertilized ----- farms, 1982--	51	6	34	16	55	36	8	-
1978--	85	8	44	31	21	63	6	5
acres on which used, 1982--	1 227	253	851	120	1 059	332	40	-
1978--	3 144	269	793	493	757	989	48	225
Lime ----- farms, 1982--	122	6	55	87	270	124	4	48
1978--	119	4	110	53	296	175	5	46
acres on which used, 1982--	6 233	136	2 558	1 953	11 886	4 045	360	854
1978--	4 549	96	3 504	1 146	15 169	5 230	1 575	623
tons, 1982--	15 241	458	4 240	3 208	26 817	7 633	426	1 426
1978--	7 547	263	7 827	2 047	35 010	10 543	1 575	1 212
Sprays, dusts, granules, fumigants, etc., to control--								
Insects on hay and other crops ----- farms, 1982--	388	6	322	229	765	362	127	17
1978--	418	9	250	346	658	451	90	48
acres on which used, 1982--	59 565	(D)	23 774	37 542	56 697	48 961	7 591	1 283
1978--	41 583	458	27 230	40 451	44 860	36 672	6 780	1 747
Nematodes in crops ----- farms, 1982--	89	1	59	15	99	54	36	7
1978--	65	3	46	50	70	56	15	-
acres on which used, 1982--	6 482	(D)	5 692	4 131	9 096	5 084	968	336
1978--	3 095	54	2 916	10 111	2 803	4 609	1 197	-
Diseases in crops and orchards ----- farms, 1982--	92	7	75	58	426	99	16	8
1978--	94	5	45	91	537	108	62	5
acres on which used, 1982--	2 872	(D)	6 079	6 594	31 669	4 279	164	571
1978--	5 739	203	7 186	6 635	31 398	7 654	1 624	10
Weeds, grass, or brush in crops and pasture ----- farms, 1982--	1 125	20	813	977	776	648	180	57
1978--	1 232	17	914	1 006	728	716	129	97
acres on which used, 1982--	210 773	1 093	120 219	216 840	70 678	85 061	18 448	4 352
1978--	191 574	1 074	106 868	195 688	64 963	75 807	11 943	5 575
Chemicals used for defoliation or for growth control of crops or thinning of fruit ----- farms, 1982--	66	1	8	26	124	50	2	-
1978--	15	5	4	20	176	67	21	9
acres on which used, 1982--	3 259	(D)	1 680	2 817	6 332	1 507	(D)	-
1978--	338	231	540	4 373	6 326	3 018	73	144