

**Table 10. Agricultural Chemicals Used, Including Fertilizer: 1992 and 1987**

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

Chemicals used	Iowa	Adair	Adams	Allamakee	Appanoose	Audubon	Benton
Commercial fertilizer -----farms, 1992 --	74 271	682	459	765	523	587	1 050
1987 --	83 051	809	479	856	497	681	1 165
acres on which used, 1992 --	14 775 107	140 858	83 384	109 300	70 360	128 350	217 497
1987 --	13 313 702	141 265	77 509	89 385	57 485	120 361	187 810
Cropland fertilized, except pastureland -----farms, 1992 --	73 100	666	418	765	452	587	1 048
1987 --	81 879	787	479	845	480	661	1 157
acres on which used, 1992 --	14 262 894	125 599	62 573	102 722	46 674	123 210	215 620
1987 --	12 882 998	122 895	69 276	85 922	47 017	112 173	186 343
Pastureland and rangeland fertilized -----farms, 1992 --	8 112	190	118	120	243	80	79
1987 --	7 286	218	108	73	129	115	41
acres on which used, 1992 --	512 213	15 259	20 811	6 578	23 686	5 140	1 877
1987 --	430 704	18 370	8 233	3 463	10 468	8 188	1 467
Sprays, dusts, granules, fumigants, etc., to control --							
Insects on hay and other crops -----farms, 1992 --	37 097	412	222	558	225	289	552
1987 --	41 361	524	224	664	209	351	629
acres on which used, 1992 --	4 673 005	39 233	18 221	59 476	8 844	45 246	59 779
1987 --	4 910 343	56 019	33 557	51 260	19 513	54 721	77 108
Nematodes in crops -----farms, 1992 --	2 371	61	--	46	10	5	24
1987 --	2 548	17	21	16	16	44	25
acres on which used, 1992 --	290 834	2 557	--	4 521	389	645	2 429
1987 --	267 277	3 812	1 185	1 213	1 335	4 635	2 574
Diseases in crops and orchards -----farms, 1992 --	863	7	1	13	9	3	16
1987 --	1 330	13	--	14	16	22	18
acres on which used, 1992 --	92 697	364	(D)	2 875	105	1 001	948
1987 --	112 420	1 588	--	630	44	2 407	1 060
Weeds, grass, or brush in crops and pasture -----farms, 1992 --	59 568	568	367	553	317	426	868
1987 --	70 486	671	457	610	408	474	1 009
acres on which used, 1992 --	16 580 787	156 595	80 954	59 294	46 084	136 801	232 967
1987 --	14 709 093	132 544	76 358	45 488	41 630	99 970	219 934
Chemicals used for defoliation or for growth control of crops or thinning of fruit -----farms, 1992 --	1 124	8	18	10	--	2	31
1987 --	1 066	8	1	7	1	8	19
acres on which used, 1992 --	162 801	524	1 260	370	--	(D)	3 240
1987 --	120 779	1 040	(D)	140	(D)	3 538	2 205

  

Chemicals used	Black Hawk	Boone	Bremer	Buchanan	Buena Vista	Butler	Calhoun
Commercial fertilizer -----farms, 1992 --	900	783	850	959	877	854	764
1987 --	975	859	872	1 116	931	1 014	859
acres on which used, 1992 --	182 514	163 859	148 445	214 112	174 650	168 934	181 301
1987 --	139 343	146 241	126 044	180 933	143 671	160 161	141 597
Cropland fertilized, except pastureland -----farms, 1992 --	900	758	839	946	877	845	763
1987 --	971	859	867	1 115	919	1 009	851
acres on which used, 1992 --	182 069	162 535	148 036	213 298	174 169	168 689	179 804
1987 --	136 822	145 978	125 774	179 463	142 826	159 030	140 926
Pastureland and rangeland fertilized -----farms, 1992 --	16	46	38	35	21	28	42
1987 --	50	13	25	42	15	31	19
acres on which used, 1992 --	445	1 324	409	814	481	245	1 497
1987 --	2 521	263	270	1 470	845	1 131	671
Sprays, dusts, granules, fumigants, etc., to control --							
Insects on hay and other crops -----farms, 1992 --	438	221	382	535	245	435	122
1987 --	535	167	500	681	274	505	224
acres on which used, 1992 --	52 867	27 768	45 106	78 455	29 243	50 592	13 693
1987 --	55 654	21 545	48 323	85 665	37 895	56 353	30 033
Nematodes in crops -----farms, 1992 --	26	20	26	48	16	18	17
1987 --	21	28	34	83	9	9	12
acres on which used, 1992 --	4 108	2 540	3 188	8 621	1 862	1 408	851
1987 --	2 140	4 339	2 322	5 466	1 718	1 371	2 606
Diseases in crops and orchards -----farms, 1992 --	19	19	--	9	11	11	--
1987 --	8	18	15	28	15	2	13
acres on which used, 1992 --	361	1 580	--	324	(D)	621	--
1987 --	235	2 129	408	1 432	2 260	(D)	1 780
Weeds, grass, or brush in crops and pasture -----farms, 1992 --	688	623	703	749	730	743	691
1987 --	813	745	769	950	830	905	719
acres on which used, 1992 --	199 108	224 326	152 008	196 164	245 088	205 361	276 105
1987 --	166 138	211 341	134 283	162 863	203 984	180 036	199 285
Chemicals used for defoliation or for growth control of crops or thinning of fruit -----farms, 1992 --	3	31	9	12	6	2	10
1987 --	17	23	--	30	7	7	28
acres on which used, 1992 --	(D)	6 410	1 778	978	2 400	(D)	3 362
1987 --	(D)	4 127	--	3 250	3 149	1 722	2 336

**Table 10. Agricultural Chemicals Used, Including Fertilizer: 1992 and 1987 –Con.**

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

Chemicals used	Carroll		Cass		Cedar		Cerro Gordo		Cherokee		Chickasaw		Clarke	
	1992	1987	1992	1987	1992	1987	1992	1987	1992	1987	1992	1987	1992	1987
Commercial fertilizer -----farms,	972	1 098	721	732	861	952	646	734	784	923	772	857	391	511
acres on which used,	189 261	177 086	168 255	142 243	196 983	163 978	177 471	138 169	160 983	132 346	149 735	139 328	45 252	59 747
Cropland fertilized, except pastureland -----farms,	970	1 065	714	704	861	950	646	734	784	915	772	857	340	493
acres on which used,	185 265	172 636	151 261	128 368	194 732	162 610	177 201	137 409	155 682	130 265	148 854	138 068	38 482	52 232
Pastureland and rangeland fertilized -----farms,	70	112	199	172	62	52	8	8	58	31	30	40	118	136
acres on which used,	3 996	4 450	16 994	13 875	2 251	1 368	270	760	5 301	2 081	881	1 260	6 770	7 515
Sprays, dusts, granules, fumigants, etc., to control —														
Insects on hay and other crops -----farms,	462	490	408	490	689	705	348	352	335	459	373	530	135	210
acres on which used,	44 034	52 621	54 739	61 680	102 973	85 317	57 063	46 132	54 786	53 177	58 344	55 892	16 827	18 748
Nematodes in crops -----farms,	5	19	26	15	17	63	8	30	24	10	30	56	2	37
acres on which used,	658	1 921	2 779	2 447	3 004	6 960	1 490	1 994	2 930	590	3 585	4 520	(D)	3 486
Diseases in crops and orchards -----farms,	12	27	1	5	25	12	19	25	1	29	11	37	—	10
acres on which used,	366	2 312	(D)	10	440	(D)	2 559	1 684	(D)	6 371	4 992	2 948	—	883
Weeds, grass, or brush in crops and pasture -----farms,	831	884	654	655	672	798	565	675	672	789	569	708	288	425
acres on which used,	234 824	184 522	187 235	147 071	185 634	159 712	207 888	172 134	191 462	166 536	141 636	125 012	41 758	66 930
Chemicals used for defoliation or for growth control of crops or thinning of fruit -----farms,	7	11	3	16	39	8	1	21	23	2	12	17	9	42
acres on which used,	1 212	1 184	(D)	4 201	2 628	491	(D)	2 664	1 820	(D)	2 208	1 631	342	712

  

Chemicals used	Clay		Clayton		Clinton		Crawford		Dallas		Davis		Decatur	
	1992	1987	1992	1987	1992	1987	1992	1987	1992	1987	1992	1987	1992	1987
Commercial fertilizer -----farms,	657	709	1 185	1 304	1 080	1 224	985	1 042	695	775	582	663	347	487
acres on which used,	139 916	131 096	190 965	162 177	209 958	200 002	218 139	176 011	145 151	132 743	70 474	83 918	51 355	77 252
Cropland fertilized, except pastureland -----farms,	649	700	1 179	1 304	1 056	1 210	942	1 004	680	768	556	647	330	460
acres on which used,	138 316	129 482	185 573	159 866	204 101	192 278	200 485	168 762	140 875	131 344	60 133	74 932	38 574	59 603
Pastureland and rangeland fertilized -----farms,	35	36	129	55	106	106	255	176	50	38	149	161	107	125
acres on which used,	1 600	1 614	5 392	2 311	5 857	7 724	17 654	7 249	4 276	1 399	10 341	8 986	12 781	17 649
Sprays, dusts, granules, fumigants, etc., to control —														
Insects on hay and other crops -----farms,	170	234	986	897	843	870	524	509	258	282	226	254	150	174
acres on which used,	27 522	28 067	117 427	93 206	104 707	110 419	74 704	62 743	29 207	25 202	17 838	26 919	9 265	18 134
Nematodes in crops -----farms,	—	33	86	67	42	35	33	37	8	27	8	9	8	6
acres on which used,	—	3 147	9 053	7 326	6 132	2 310	2 866	2 685	1 349	4 309	308	1 169	435	1 061
Diseases in crops and orchards -----farms,	—	1	13	10	7	13	9	19	18	25	—	—	7	21
acres on which used,	(D)	(D)	533	190	(D)	1 447	588	751	3 766	3 639	—	—	140	3 944
Weeds, grass, or brush in crops and pasture -----farms,	596	599	933	881	782	904	767	947	610	802	367	550	249	388
acres on which used,	203 416	174 991	138 576	100 811	178 648	171 855	194 270	170 797	203 001	191 817	49 629	60 313	38 790	66 631
Chemicals used for defoliation or for growth control of crops or thinning of fruit -----farms,	11	9	2	14	6	2	9	20	—	13	4	8	—	6
acres on which used,	2 304	912	(D)	462	(D)	(D)	(D)	(D)	—	—	122	(D)	—	72

**Table 10. Agricultural Chemicals Used, Including Fertilizer: 1992 and 1987 –Con.**

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Chemicals used	Delaware	Des Moines	Dickinson	Dubuque	Emmet	Fayette	Floyd	Franklin
Commercial fertilizer -----farms, 1992 --	1 037	526	443	1 327	450	1 124	700	766
1987 --	1 209	617	485	1 295	539	1 253	771	827
acres on which used, 1992 --	192 114	93 058	93 527	159 628	97 410	215 472	152 402	182 873
1987 --	180 421	95 066	85 279	139 482	100 583	199 597	126 585	164 923
Cropland fertilized, except pastureland -----farms, 1992 --	1 029	526	443	1 304	450	1 118	692	766
1987 --	1 203	611	485	1 278	539	1 221	762	827
acres on which used, 1992 --	189 142	91 296	90 234	155 426	96 580	213 542	151 533	182 759
1987 --	178 422	91 408	84 684	134 939	100 223	196 820	125 989	(D)
Pastureland and rangeland fertilized -----farms, 1992 --	109	32	16	187	25	57	43	10
1987 --	48	69	17	125	5	90	30	3
acres on which used, 1992 --	2 972	1 762	3 293	4 202	830	1 930	869	114
1987 --	1 999	3 658	595	4 543	360	2 777	596	(D)
Sprays, dusts, granules, fumigants, etc., to control --								
Insects on hay and other crops -----farms, 1992 --	777	216	156	851	101	735	277	322
1987 --	842	357	185	897	142	697	296	329
acres on which used, 1992 --	114 966	26 502	15 041	82 941	15 165	104 941	35 978	44 950
1987 --	109 821	38 729	16 506	71 310	19 752	87 243	31 262	45 041
Nematodes in crops -----farms, 1992 --	50	10	--	166	3	21	15	7
1987 --	57	23	9	146	7	66	20	12
acres on which used, 1992 --	7 029	1 149	--	14 796	260	4 428	2 726	4 306
1987 --	7 172	1 727	36	9 013	1 152	7 310	691	1 813
Diseases in crops and orchards -----farms, 1992 --	4	31	1	8	--	13	9	3
1987 --	2	14	16	39	--	21	6	9
acres on which used, 1992 --	977	444	(D)	1 340	--	1 746	1 402	576
1987 --	(D)	899	16	1 815	--	1 915	337	(D)
Weeds, grass, or brush in crops and pasture -----farms, 1992 --	751	414	382	891	398	829	573	609
1987 --	905	506	437	894	478	930	700	792
acres on which used, 1992 --	142 913	107 434	126 246	91 441	151 838	179 856	161 567	224 549
1987 --	129 452	82 584	114 490	75 498	140 331	162 871	149 641	203 360
Chemicals used for defoliation or for growth control of crops or thinning of fruit -----farms, 1992 --	16	16	1	24	12	23	8	1
1987 --	29	3	1	20	9	13	7	--
acres on which used, 1992 --	1 291	140	(D)	1 885	1 457	1 852	1 985	(D)
1987 --	1 930	(D)	(D)	2 375	923	1 381	1 127	--

  

Chemicals used	Fremont	Greene	Grundy	Guthrie	Hamilton	Hancock	Hardin	Harrison
Commercial fertilizer -----farms, 1992 --	528	727	672	709	712	781	794	779
1987 --	612	786	879	712	884	902	869	841
acres on which used, 1992 --	137 098	170 809	170 943	127 609	176 787	183 847	171 164	217 023
1987 --	116 851	156 120	159 353	107 726	166 401	170 668	165 200	177 067
Cropland fertilized, except pastureland -----farms, 1992 --	497	727	667	676	712	781	786	772
1987 --	602	786	879	679	884	890	869	831
acres on which used, 1992 --	130 186	169 950	169 869	118 623	176 613	183 755	169 774	207 981
1987 --	113 738	154 911	156 852	101 294	165 974	170 242	163 498	169 663
Pastureland and rangeland fertilized -----farms, 1992 --	93	20	18	127	15	8	44	149
1987 --	79	14	69	80	28	20	58	149
acres on which used, 1992 --	6 912	859	1 074	8 986	174	92	1 390	9 042
1987 --	3 113	1 209	2 501	6 432	427	426	1 702	7 404
Sprays, dusts, granules, fumigants, etc., to control --								
Insects on hay and other crops -----farms, 1992 --	216	165	309	193	108	249	357	557
1987 --	276	131	495	190	222	337	378	423
acres on which used, 1992 --	46 909	20 236	48 904	26 886	19 504	31 194	49 891	71 538
1987 --	39 499	18 568	70 060	20 813	35 562	35 434	49 639	60 737
Nematodes in crops -----farms, 1992 --	2	16	33	13	2	1	29	31
1987 --	12	3	16	--	11	9	19	26
acres on which used, 1992 --	(D)	1 509	7 857	441	(D)	(D)	5 323	5 660
1987 --	1 220	281	7 171	--	244	531	1 960	3 726
Diseases in crops and orchards -----farms, 1992 --	1	2	27	9	2	10	22	33
1987 --	13	11	15	19	20	2	14	13
acres on which used, 1992 --	(D)	7 954	9	(D)	43	832	6 964	6 964
1987 --	971	506	1 810	3 868	2 535	(D)	1 128	578
Weeds, grass, or brush in crops and pasture -----farms, 1992 --	440	654	613	565	669	748	719	568
1987 --	563	775	788	698	782	819	728	682
acres on which used, 1992 --	175 911	267 025	240 999	159 925	262 971	266 899	229 723	229 464
1987 --	169 812	227 446	190 282	138 245	209 924	217 512	202 215	190 293
Chemicals used for defoliation or for growth control of crops or thinning of fruit -----farms, 1992 --	6	8	13	8	12	2	12	20
1987 --	2	1	11	3	1	9	3	9
acres on which used, 1992 --	600	1 793	1 788	1 527	1 601	(D)	574	3 843
1987 --	(D)	(D)	1 114	(D)	(D)	1 478	(D)	652

Table 10. **Agricultural Chemicals Used, Including Fertilizer: 1992 and 1987** –Con.

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

Chemicals used	Henry	Howard	Humboldt	Ida	Iowa	Jackson	Jasper	Jefferson
	Commercial fertilizer -----farms, 1992 --	600	709	604	548	645	857	1 023
1987 --	719	781	677	647	841	1 057	1 089	566
acres on which used, 1992 --	99 281	143 602	143 858	123 235	127 507	117 698	199 314	89 815
1987 --	100 145	127 106	127 216	122 373	140 903	117 100	163 343	89 040
Cropland fertilized, except pastureland -----farms, 1992 --	593	709	604	548	629	838	1 005	560
1987 --	705	781	677	646	830	1 046	1 079	566
acres on which used, 1992 --	97 628	142 668	143 756	119 047	122 415	113 161	191 124	87 245
1987 --	99 267	125 939	127 084	117 567	133 196	109 914	160 755	86 451
Pastureland and rangeland fertilized -----farms, 1992 --	36	21	15	67	110	125	167	85
1987 --	31	49	11	51	112	164	84	45
acres on which used, 1992 --	1 653	934	102	4 188	5 092	4 537	8 190	2 570
1987 --	878	1 167	132	4 806	7 707	7 186	2 588	2 589
Sprays, dusts, granules, fumigants, etc., to control --								
Insects on hay and other crops -----farms, 1992 --	321	351	102	324	516	650	541	186
1987 --	388	429	230	339	648	648	643	292
acres on which used, 1992 --	32 730	57 637	17 879	38 189	84 028	66 383	67 618	19 751
1987 --	41 844	45 963	33 586	44 192	88 991	58 072	71 378	39 368
Nematodes in crops -----farms, 1992 --	26	20	—	33	58	17	10	14
1987 --	18	15	17	35	29	42	32	3
acres on which used, 1992 --	3 099	5 505	—	6 533	6 618	2 354	431	405
1987 --	1 327	977	990	3 888	3 317	4 494	1 666	473
Diseases in crops and orchards -----farms, 1992 --	—	3	—	—	16	—	5	—
1987 --	2	15	11	3	14	9	10	8
acres on which used, 1992 --	—	(D)	—	—	(D)	—	(D)	—
1987 --	(D)	1 901	707	947	1 090	1 037	395	8
Weeds, grass, or brush in crops and pasture -----farms, 1992 --	437	538	552	484	517	502	780	426
1987 --	560	611	590	575	701	657	965	530
acres on which used, 1992 --	119 381	138 747	209 416	147 111	123 444	71 680	206 675	107 061
1987 --	91 420	122 662	167 989	143 557	118 189	69 396	208 930	103 253
Chemicals used for defoliation or for growth control of crops or thinning of fruit -----farms, 1992 --	—	18	16	13	1	49	25	31
1987 --	9	11	24	—	3	15	44	1
acres on which used, 1992 --	—	4 739	2 080	776	(D)	1 574	2 259	2 965
1987 --	1 504	449	2 215	—	(D)	1 002	5 583	(D)
Chemicals used	Johnson	Jones	Keokuk	Kossuth	Lee	Linn	Louisa	Lucas
Commercial fertilizer -----farms, 1992 --	812	868	724	1 427	644	1 027	441	364
1987 --	1 006	928	825	1 547	787	1 243	563	478
acres on which used, 1992 --	128 345	164 148	134 467	343 665	104 830	171 960	98 880	51 947
1987 --	134 854	139 119	141 433	276 070	110 361	169 325	92 709	53 664
Cropland fertilized, except pastureland -----farms, 1992 --	797	862	701	1 427	644	1 027	428	331
1987 --	992	921	792	1 547	778	1 243	551	462
acres on which used, 1992 --	125 552	159 070	127 390	343 485	102 516	169 904	97 987	33 597
1987 --	131 790	136 356	132 000	275 548	107 066	167 835	91 631	41 863
Pastureland and rangeland fertilized -----farms, 1992 --	95	103	120	7	63	56	28	104
1987 --	82	69	146	17	69	43	32	93
acres on which used, 1992 --	2 793	5 078	7 077	180	2 314	2 056	893	18 350
1987 --	3 064	2 763	9 433	522	3 295	1 490	1 078	11 801
Sprays, dusts, granules, fumigants, etc., to control --								
Insects on hay and other crops -----farms, 1992 --	616	631	480	300	324	660	275	155
1987 --	636	670	528	413	386	679	378	245
acres on which used, 1992 --	79 084	102 055	63 988	30 680	31 703	59 576	36 660	13 019
1987 --	71 873	90 403	85 683	49 815	42 304	71 284	53 625	20 067
Nematodes in crops -----farms, 1992 --	34	32	42	10	22	17	9	10
1987 --	36	73	45	3	2	29	29	19
acres on which used, 1992 --	3 060	8 147	7 828	1 758	1 758	2 904	1 000	865
1987 --	3 269	6 832	6 127	1 121	(D)	2 563	2 798	1 075
Diseases in crops and orchards -----farms, 1992 --	18	16	21	2	2	18	1	1
1987 --	10	14	11	8	7	6	30	7
acres on which used, 1992 --	1 440	3 469	865	(D)	(D)	2 200	(D)	(D)
1987 --	333	784	926	98	40	236	3 828	350
Weeds, grass, or brush in crops and pasture -----farms, 1992 --	632	695	561	1 236	446	883	341	189
1987 --	801	689	693	1 429	636	1 046	453	339
acres on which used, 1992 --	116 556	135 895	113 445	461 983	117 176	190 940	112 710	31 239
1987 --	125 588	110 398	143 683	394 042	112 563	158 428	111 687	44 873
Chemicals used for defoliation or for growth control of crops or thinning of fruit -----farms, 1992 --	23	22	15	26	3	26	16	—
1987 --	18	35	10	3	16	35	14	1
acres on which used, 1992 --	2 961	2 454	1 297	3 721	(D)	8 643	7 242	—
1987 --	1 745	1 037	462	240	1 531	705	483	(D)

**Table 10. Agricultural Chemicals Used, Including Fertilizer: 1992 and 1987 –Con.**

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Chemicals used	Lyon	Madison	Mahaska	Marion	Marshall	Mills	Mitchell	Monona
Commercial fertilizer -----farms, 1992 --	823	709	865	767	765	432	682	683
1987 --	1 017	674	1 023	840	781	551	663	744
acres on which used, 1992 --	158 341	101 494	141 078	95 191	169 107	115 134	141 506	200 148
1987 --	162 688	87 385	127 438	93 127	141 828	100 172	127 633	182 829
Cropland fertilized, except pastureland -----farms, 1992 --	823	685	838	756	751	430	682	671
1987 --	1 017	648	990	825	765	522	654	744
acres on which used, 1992 --	155 726	88 960	134 949	90 661	167 133	111 070	140 803	192 481
1987 --	160 951	78 082	125 267	87 691	139 140	97 513	127 101	177 493
Pastureland and rangeland fertilized -----farms, 1992 --	40	141	110	109	37	86	22	81
1987 --	50	113	73	99	44	62	23	79
acres on which used, 1992 --	2 615	12 534	6 129	4 530	1 974	4 064	703	7 667
1987 --	1 737	9 303	2 171	5 436	2 688	2 659	532	5 336
Sprays, dusts, granules, fumigants, etc., to control --								
Insects on hay and other crops -----farms, 1992 --	438	382	492	431	524	213	381	340
1987 --	472	276	517	386	463	266	353	376
acres on which used, 1992 --	69 891	26 302	63 700	38 194	73 057	37 116	51 731	71 524
1987 --	59 045	23 096	58 820	34 025	64 925	36 494	45 088	66 043
Nematodes in crops -----farms, 1992 --	12	13	54	37	31	24	10	21
1987 --	17	49	34	29	24	20	7	15
acres on which used, 1992 --	2 320	1 355	3 140	1 787	1 869	4 704	1 453	4 249
1987 --	2 550	3 544	3 567	2 954	1 987	984	2 280	3 901
Diseases in crops and orchards -----farms, 1992 --	2	13	13	2	24	7	5	2
1987 --	13	25	1	1	18	20	17	35
acres on which used, 1992 --	(D)	525	4 581	(D)	1 002	7	846	(D)
1987 --	861	3 168	(D)	(D)	1 604	1 186	760	1 997
Weeds, grass, or brush in crops and pasture -----farms, 1992 --	761	617	684	586	621	382	485	575
1987 --	840	603	818	664	746	517	630	609
acres on which used, 1992 --	195 517	130 718	157 361	86 862	206 165	155 750	143 540	225 589
1987 --	178 188	106 497	157 875	99 191	163 851	134 890	146 246	193 925
Chemicals used for defoliation or for growth control of crops or thinning of fruit -----farms, 1992 --	--	--	16	5	13	11	4	--
1987 --	8	--	2	11	2	21	1	9
acres on which used, 1992 --	--	--	3 770	576	2 276	390	1 828	--
1987 --	1 028	--	(D)	1 120	(D)	1 749	(D)	360

  

Chemicals used	Monroe	Montgomery	Muscatine	O'Brien	Osceola	Page	Palo Alto	Plymouth
Commercial fertilizer -----farms, 1992 --	361	506	605	928	625	750	729	1 273
1987 --	488	572	671	1 016	639	809	845	1 379
acres on which used, 1992 --	37 575	109 189	105 334	180 461	141 139	131 870	160 899	269 541
1987 --	66 927	97 104	108 102	174 268	102 880	117 562	145 989	233 968
Cropland fertilized, except pastureland -----farms, 1992 --	328	499	588	928	617	741	729	1 244
1987 --	485	553	671	1 012	627	782	845	1 361
acres on which used, 1992 --	28 000	93 775	102 899	179 634	140 430	116 724	160 317	255 329
1987 --	54 414	87 877	106 907	174 182	102 182	104 470	144 888	223 827
Pastureland and rangeland fertilized -----farms, 1992 --	115	164	39	28	17	190	20	218
1987 --	95	117	36	8	37	175	56	190
acres on which used, 1992 --	9 575	15 414	2 435	827	709	15 146	582	14 212
1987 --	12 513	9 227	1 195	86	698	13 092	1 101	10 141
Sprays, dusts, granules, fumigants, etc., to control --								
Insects on hay and other crops -----farms, 1992 --	205	241	438	324	166	327	159	562
1987 --	183	233	449	376	133	348	226	689
acres on which used, 1992 --	16 328	33 154	44 946	37 926	28 521	15 742	19 821	80 247
1987 --	13 832	34 626	52 035	57 224	17 138	29 675	37 694	86 722
Nematodes in crops -----farms, 1992 --	12	18	13	25	2	26	8	82
1987 --	16	15	33	27	1	8	4	51
acres on which used, 1992 --	270	1 103	2 520	3 411	(D)	1 476	267	7 060
1987 --	3 696	1 711	3 824	3 675	(D)	141	1 730	6 078
Diseases in crops and orchards -----farms, 1992 --	--	10	28	13	--	4	7	1
1987 --	--	1	56	28	17	7	8	18
acres on which used, 1992 --	--	575	457	1 090	--	803	98	(D)
1987 --	--	(D)	3 326	3 613	2 726	852	(D)	543
Weeds, grass, or brush in crops and pasture -----farms, 1992 --	259	426	474	825	522	593	674	1 075
1987 --	453	504	546	893	598	796	742	1 191
acres on which used, 1992 --	29 049	118 099	112 084	243 518	193 024	154 916	238 517	284 453
1987 --	52 415	112 813	96 672	212 408	149 156	144 863	188 100	229 404
Chemicals used for defoliation or for growth control of crops or thinning of fruit -----farms, 1992 --	5	7	9	--	2	21	7	7
1987 --	16	3	9	10	17	1	14	17
acres on which used, 1992 --	40	2 100	134	--	(D)	1 535	28	2 683
1987 --	320	(D)	1 435	2 059	1 810	(D)	3 092	3 598

**Table 10. Agricultural Chemicals Used, Including Fertilizer: 1992 and 1987 – Con.**

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

Chemicals used	Pocahontas	Polk	Pottawattamie	Poweshiek	Ringgold	Sac	Scott	Shelby
Commercial fertilizer -----farms, 1992 --	809	567	1 187	698	450	793	710	899
1987 --	862	687	1 247	810	515	817	723	989
acres on which used, 1992 --	189 815	102 506	288 488	132 965	76 351	179 444	149 802	218 808
1987 --	142 329	105 398	243 740	128 840	80 907	144 080	128 697	181 850
Cropland fertilized, except pastureland -----farms, 1992 --	809	561	1 156	668	429	791	701	896
1987 --	857	674	1 204	793	496	810	716	971
acres on which used, 1992 --	189 527	101 587	274 945	126 829	56 740	177 133	148 466	212 709
1987 --	142 219	104 961	234 939	120 088	65 769	142 271	126 523	176 577
Pastureland and rangeland fertilized -----farms, 1992 --	11	19	274	128	120	43	51	144
1987 --	6	27	217	121	153	40	45	133
acres on which used, 1992 --	288	919	13 543	6 136	19 611	2 311	1 336	6 099
1987 --	110	437	8 801	8 752	15 138	1 809	2 174	5 273
Sprays, dusts, granules, fumigants, etc., to control --								
Insects on hay and other crops -----farms, 1992 --	143	219	706	412	214	326	574	655
1987 --	186	273	827	450	215	365	576	553
acres on which used, 1992 --	20 802	21 369	89 763	40 653	19 644	47 344	77 219	83 670
1987 --	23 938	32 429	104 387	41 146	22 955	50 764	73 420	75 970
Nematodes in crops -----farms, 1992 --	8	11	48	8	22	45	49	26
1987 --	23	35	17	—	8	17	96	36
acres on which used, 1992 --	873	841	4 713	1 318	1 686	6 530	6 245	2 542
1987 --	2 640	2 801	3 130	—	1 756	1 718	12 006	5 958
Diseases in crops and orchards -----farms, 1992 --	—	12	24	—	12	12	12	6
1987 --	—	23	12	—	1	14	15	1
acres on which used, 1992 --	—	(D)	1 964	—	1 350	2 909	12	757
1987 --	—	2 967	526	—	(D)	2 951	760	(D)
Weeds, grass, or brush in crops and pasture -----farms, 1992 --	726	456	956	567	352	657	555	633
1987 --	735	600	1 114	726	394	699	587	870
acres on which used, 1992 --	282 653	140 774	321 513	151 922	66 096	214 765	143 242	197 596
1987 --	207 380	150 632	292 057	146 173	76 073	170 520	113 108	178 499
Chemicals used for defoliation or for growth control of crops or thinning of fruit -----farms, 1992 --	16	1	6	17	9	21	7	6
1987 --	23	9	7	19	16	16	2	3
acres on which used, 1992 --	3 246	(D)	1 439	2 259	360	3 000	70	1 165
1987 --	3 778	402	790	4 659	88	3 385	(D)	1 760

  

Chemicals used	Sioux	Story	Tama	Taylor	Union	Van Buren	Wapello	Warren
Commercial fertilizer -----farms, 1992 --	1 467	761	941	567	400	514	522	830
1987 --	1 513	846	1 157	580	487	593	560	814
acres on which used, 1992 --	275 344	166 717	209 059	89 300	69 205	65 283	68 902	104 765
1987 --	250 375	143 994	169 572	80 240	61 843	68 567	64 030	96 002
Cropland fertilized, except pastureland -----farms, 1992 --	1 467	761	926	554	391	513	501	817
1987 --	1 487	845	1 148	573	468	578	547	783
acres on which used, 1992 --	273 592	165 634	203 194	79 986	54 973	59 560	63 564	100 045
1987 --	249 310	143 404	166 017	70 488	50 199	63 021	60 770	89 225
Pastureland and rangeland fertilized -----farms, 1992 --	64	15	130	95	106	72	74	92
1987 --	54	35	66	87	110	104	52	84
acres on which used, 1992 --	1 752	1 083	5 865	9 314	14 232	5 723	5 338	4 720
1987 --	1 065	590	3 555	9 752	11 644	5 546	3 260	6 777
Sprays, dusts, granules, fumigants, etc., to control --								
Insects on hay and other crops -----farms, 1992 --	925	277	621	221	157	195	218	323
1987 --	943	250	748	248	190	282	224	387
acres on which used, 1992 --	134 102	39 667	90 628	21 896	16 462	21 640	18 398	20 124
1987 --	117 503	29 600	86 558	27 021	17 603	30 186	23 847	34 057
Nematodes in crops -----farms, 1992 --	54	5	91	10	25	2	4	16
1987 --	65	2	24	20	5	7	9	29
acres on which used, 1992 --	9 209	1 357	11 417	350	1 145	(D)	873	1 450
1987 --	7 738	(D)	1 750	1 285	919	420	368	3 153
Diseases in crops and orchards -----farms, 1992 --	12	23	14	—	10	25	12	20
1987 --	29	9	36	—	—	28	—	12
acres on which used, 1992 --	1 264	1 777	94	—	90	2 210	1 229	1 177
1987 --	1 838	28	1 164	—	—	1 772	—	916
Weeds, grass, or brush in crops and pasture -----farms, 1992 --	1 158	695	753	406	354	405	318	728
1987 --	1 240	835	923	528	424	458	451	685
acres on which used, 1992 --	257 337	214 469	240 011	91 584	82 952	60 179	64 474	142 905
1987 --	231 484	207 693	185 828	93 817	78 611	62 777	70 344	102 534
Chemicals used for defoliation or for growth control of crops or thinning of fruit -----farms, 1992 --	17	15	3	7	18	19	16	7
1987 --	7	15	6	—	10	11	5	7
acres on which used, 1992 --	7 133	(D)	1 266	3 070	406	2 113	3 402	(D)
1987 --	2 822	2 633	84	—	388	505	85	14

Table 10. **Agricultural Chemicals Used, Including Fertilizer: 1992 and 1987** —Con.

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

Chemicals used	Washington	Wayne	Webster	Winnebago	Winneshiek	Woodbury	Worth	Wright
Commercial fertilizer -----farms, 1992 --	778	576	873	519	1 101	949	480	699
1987 --	907	524	1 028	634	1 332	1 024	547	784
acres on which used, 1992 --	138 375	96 784	200 599	126 011	151 444	225 597	123 409	186 349
1987 --	127 132	70 094	186 178	105 694	152 409	213 612	94 189	160 046
Cropland fertilized, except pastureland -----farms, 1992 --	745	575	866	519	1 052	922	480	698
1987 --	906	484	1 020	634	1 283	1 003	541	784
acres on which used, 1992 --	133 239	87 176	199 537	126 011	145 920	216 363	122 809	186 124
1987 --	123 899	56 591	185 947	(D)	146 824	203 563	93 384	159 741
Pastureland and rangeland fertilized -----farms, 1992 --	125	133	30	—	198	165	15	4
1987 --	71	158	15	1	149	157	22	13
acres on which used, 1992 --	5 136	9 608	1 062	—	5 524	9 234	600	225
1987 --	3 233	13 503	231	(D)	5 585	10 049	805	305
Sprays, dusts, granules, fumigants, etc., to control —								
Insects on hay and other crops -----farms, 1992 --	498	279	160	151	812	492	231	101
1987 --	565	293	245	153	947	638	225	140
acres on which used, 1992 --	70 484	25 677	18 134	15 264	90 856	81 287	30 467	14 770
1987 --	68 727	33 486	31 322	16 159	76 911	114 525	19 166	17 854
Nematodes in crops -----farms, 1992 --	16	26	7	8	124	10	1	—
1987 --	8	28	7	7	57	35	7	14
acres on which used, 1992 --	2 329	3 542	1 279	1 193	11 903	3 701	(D)	—
1987 --	1 578	2 411	91	105	5 037	4 708	592	335
Diseases in crops and orchards -----farms, 1992 --	7	—	2	2	2	4	2	—
1987 --	22	—	20	—	33	3	2	10
acres on which used, 1992 --	1 561	—	(D)	(D)	(D)	(D)	(D)	—
1987 --	1 508	—	(D)	—	1 459	1 113	(D)	464
Weeds, grass, or brush in crops and pasture -----farms, 1992 --	650	337	758	447	713	701	388	693
1987 --	729	413	969	574	1 025	942	520	778
acres on which used, 1992 --	154 326	68 616	270 893	170 903	82 879	244 080	131 258	280 356
1987 --	134 519	62 000	280 739	157 332	99 233	213 291	122 040	242 315
Chemicals used for defoliation or for growth control of crops or thinning of fruit -----farms, 1992 --	4	2	18	15	26	19	2	12
1987 --	12	13	8	5	22	2	2	—
acres on which used, 1992 --	970	(D)	2 745	1 620	3 971	882	(D)	2 661
1987 --	3 475	436	1 403	(D)	1 704	(D)	(D)	—