

Table E1
Exposure-response models for all 48 pesticides and atopic and non-atopic models using tertiles of intensity-adjusted exposure (0, <median, median+)

Exposure	Controls (N=19263) n	%	Atopic asthma (N=127)					p-trend	Non-atopic asthma (N=314)					p-trend
			n	%	Odds Ratio*	95% Confidence			n	%	Odds Ratio*	95% Confidence Interval		
Herbicides 2,4,5-T	0	15312	82	86	72			218	72				0.31	
	1-72	1733	9	11	9	0.86	0.46	1.64	43	14	1.22	0.87	1.72	
	72+	1693	9	23	19	1.83	1.14	2.96	40	13	1.14	0.80	1.61	
2,4,5-TP	0	17860	95	109	91				281	93				0.41
	1-84	437	2	3	3	0.93	0.29	2.96	10	3	1.16	0.61	2.20	
	84+	437	2	8	7	2.51	1.21	5.21	11	4	1.26	0.68	2.32	
2,4-D	0	4004	21	16	13				48	16				0.52
	1-368	7194	38	41	34	1.32	0.73	2.37	116	38	1.20	0.85	1.70	
	368+	7533	40	65	53	1.74	0.98	3.09	140	46	1.16	0.82	1.65	
Alachlor	0	8001	45	52	44				109	38				0.33
	1-240	5125	29	33	28	0.89	0.57	1.40	93	33	1.19	0.89	1.58	
	240+	4722	27	34	29	0.99	0.64	1.54	82	29	1.15	0.85	1.54	
Atrazine	0	5125	27	32	26				69	23				0.66
	1-329	7089	38	38	31	0.78	0.48	1.28	121	40	1.16	0.85	1.58	
	329+	6687	35	54	44	1.12	0.71	1.76	116	38	1.10	0.80	1.50	
Butylate	0	13828	74	84	68				211	70				0.81
	1-137	2466	13	21	17	1.26	0.77	2.06	55	18	1.28	0.94	1.74	
	137+	2463	13	19	15	1.16	0.69	1.93	36	12	0.85	0.59	1.23	
Chlorimuron-Ethyl	0	12823	68	81	64				208	68				0.85
	1-58	3027	16	27	21	1.47	0.94	2.30	52	17	1.11	0.81	1.52	
	58+	2936	16	18	14	1.02	0.61	1.71	44	15	1.00	0.72	1.39	
Cyanazine	0	10323	57	61	52				142	49				0.13
	1-165	3986	22	27	23	1.04	0.64	1.68	78	27	1.28	0.95	1.72	
	165+	3683	21	30	25	1.24	0.77	1.99	70	24	1.25	0.91	1.70	

Exposure	Controls (N=19263) n	%	Atopic asthma (N=127)					p-trend	Non-atopic asthma (N=314)					p-trend
			n	%	Odds Ratio*	95% Confidence			n	%	Odds Ratio*	95% Confidence Interval		
Dicamba	0	48	50	42.	.	.	0.59	113	40.	.	.		0.25	
	1-166	4867	27	38	32	1.29	0.81	2.07	94	33	1.41	1.03	1.92	
	166+	4484	25	32	27	1.14	0.69	1.88	77	27	1.21	0.87	1.68	
EPTC	0	80	84	71.	.	.	0.02	213	75.	.	.		0.24	
	1-96	1828	10	16	14	1.45	0.83	2.52	41	15	1.41	1.00	2.00	
	96+	1676	9	18	15	1.80	1.06	3.04	29	10	1.12	0.75	1.68	
Glyphosate	0	4361	23	23	18.	.	0.08	67	22.	.	.		0.62	
	1-179	7320	39	46	37	1.22	0.74	2.03	128	41	1.19	0.88	1.61	
	179+	7172	38	56	45	1.53	0.93	2.52	114	37	1.11	0.81	1.51	
Imazethapyr	0	9992	56	65	56.	.	0.56	165	58.	.	.		0.23	
	1-95	4153	23	23	20	0.84	0.50	1.41	70	24	0.95	0.70	1.29	
	95+	3700	21	29	25	1.19	0.73	1.93	52	18	0.81	0.58	1.13	
Metolachlor	0	9559	53	63	53.	.	0.46	142	50.	.	.		0.54	
	1-204	4368	24	21	18	0.71	0.43	1.18	80	28	1.19	0.89	1.58	
	204+	4053	23	34	29	1.25	0.81	1.92	65	23	1.07	0.79	1.45	
Metribuzin	0	11715	63	69	57.	.	0.40	179	59.	.	.		0.69	
	1-85	3512	19	25	21	1.09	0.68	1.77	67	22	1.09	0.81	1.46	
	85+	3491	19	28	23	1.22	0.77	1.94	56	19	0.92	0.67	1.26	
Paraquat	0	15846	84	97	78.	.	0.08	263	88.	.	.		0.25	
	1-79	1476	8	16	13	1.88	1.09	3.24	20	7	0.83	0.52	1.33	
	79+	1472	8	11	9	1.46	0.73	2.89	17	6	0.77	0.46	1.30	
Pendimethalin	0	11860	63	81	65.	.	0.71	187	61.	.	.		0.59	
	1-99	3428	18	23	19	0.97	0.61	1.55	70	23	1.30	0.98	1.72	
	99+	3476	19	20	16	0.91	0.55	1.49	48	16	0.99	0.72	1.38	
Petroleum Oil	0	14874	80	91	73.	.	0.51	220	73.	.	.		0.09	
	1-154	1899	10	21	17	1.71	1.06	2.77	47	16	1.57	1.14	2.17	
	154+	1891	10	12	10	0.96	0.52	1.76	35	12	1.17	0.81	1.69	
Trifluralin	0	8240	46	56	49.	.	0.70	132	45.	.	.		0.13	
	1-306	4875	27	23	20	0.62	0.38	1.03	88	30	1.01	0.76	1.34	
	306+	4800	27	36	31	0.94	0.60	1.47	71	24	0.78	0.57	1.06	

Exposure	Controls (N=19263)	Atopic asthma (N=127)					p-trend	Non-atopic asthma (N=314)					p-trend
		n	%	Odds Ratio*	95% Confidence	p-trend		n	%	Odds Ratio*	95% Confidence Interval		
Insecticides													
Carbamates													
Aldicarb	0	17330	92	117	94		293	96				0.23	
	1-191	767	4	5	4		6	2	0.53	0.23	1.22		
	191+	700	4	2	2		7	2	0.77	0.35	1.69		
Carbaryl	0	10822	58	63	51	0.23	171	56				0.70	
	1-110	3603	19	27	22		68	22	1.03	0.77	1.37		
	110+	4164	22	33	27		66	22	0.92	0.66	1.28		
Carbofuran	0	12747	72	78	66	0.31	184	64				0.60	
	1-120	2673	15	16	14		62	22	1.34	1.00	1.80		
	120+	2418	14	24	20		40	14	0.98	0.69	1.39		
Organochlorines													
Aldrin	0	15585	83	91	77	0.30	229	75				0.26	
	1-86	1584	8	7	6		46	15	1.15	0.82	1.62		
	86+	1529	8	20	17		29	10	0.73	0.48	1.09		
Chlordane	0	15238	82	82	67	0.02	222	74				0.26	
	1-55	1745	9	22	18		36	12	1.11	0.78	1.60		
	55+	1711	9	19	15		42	14	1.21	0.86	1.70		
DDT	0	14548	78	79	64	0.20	185	63				0.03	
	1-104	2046	11	23	19		54	18	1.33	0.95	1.85		
	104+	2032	11	21	17		56	19	1.39	1.00	1.94		
Dieldrin	0	18060	96	113	93	0.22	293	96				0.10	
	1-55	344	2	3	2		6	2	0.57	0.25	1.30		
	55+	330	2	6	5		6	2	0.60	0.26	1.37		
Lindane	0	16227	87	95	77	0.00	264	86				0.67	
	1-96	1289	7	8	7		17	6	0.66	0.40	1.09		
	96+	1169	6	20	16		26	8	1.05	0.69	1.59		
Heptachlor	0	16585	88	92	74	0.00	245	80				0.70	
	1-76	1117	6	11	9		39	13	1.52	1.06	2.17		
	76+	1089	6	22	18		23	7	0.90	0.58	1.41		

Exposure	Controls (N=19263) n %	Atopic asthma (N=127)					p-trend	Non-atopic asthma (N=314)					p-trend
		n	%	Odds Ratio*	95% Confidence	Interval		n	%	Odds Ratio*	95% Confidence	Interval	
Toxaphene	0 16692 89	106	86.	1.12	0.56	2.24	0.77	265	88.	0.91	0.56	1.46	0.39
	1-86 1022 5	9	7	1.07	0.53	2.17		19	6	0.82	0.50	1.34	
	86+ 1069 6	9	7	1.07	0.53	2.17		18	6	0.82	0.50	1.34	
Organophosphates													
Chlorpyrifos	0 10237 58	62	53.	1.02	0.63	1.64	0.16	155	55.	1.13	0.85	1.52	0.40
	1-141 3917 22	24	21	1.40	0.90	2.18		67	24	1.11	0.82	1.51	
	141+ 3614 20	30	26	1.40	0.90	2.18	0.00	59	21	1.11	0.82	1.51	0.64
Coumaphos	0 16114 91	92	79.	1.18	0.51	2.71		259	91.	0.96	0.56	1.66	0.64
	1-116 818 5	6	5	3.81	2.28	6.37		14	5	0.87	0.49	1.57	
	116+ 767 4	18	16	3.81	2.28	6.37	0.07	12	4	0.87	0.49	1.57	0.83
Diazinon	0 14899 80	87	71.	1.66	1.00	2.75		239	78.	1.25	0.88	1.76	0.83
	1-93 1855 10	19	15	1.45	0.84	2.50		40	13	0.86	0.58	1.29	
	93+ 1907 10	17	14	1.45	0.84	2.50	0.07	29	9	0.86	0.58	1.29	0.40
Dichlorvos	0 15905 89	98	82.	1.30	0.65	2.61		249	87.	0.89	0.53	1.49	0.40
	1-208 1019 6	9	8	1.75	0.94	3.23		16	6	1.29	0.83	2.00	
	208+ 1011 6	12	10	1.75	0.94	3.23	0.10	23	8	1.29	0.83	2.00	0.09
Fonofos	0 14060 78	82	71.	1.15	0.65	2.04		207	71.	1.18	0.83	1.68	0.09
	1-145 2065 12	15	13	1.57	0.93	2.64		40	14	1.32	0.94	1.86	
	145+ 1901 11	19	16	1.57	0.93	2.64	0.09	43	15	1.32	0.94	1.86	0.04
Malathion	0 6755 36	39	32.	0.79	0.49	1.28		81	27.	1.36	1.01	1.83	0.04
	1-110 5949 32	30	24	1.41	0.93	2.14		109	36	1.36	1.02	1.83	
	110+ 5845 32	55	44	1.41	0.93	2.14	0.01	114	38	1.36	1.02	1.83	0.90
Parathion	0 17215 92	103	84.	2.21	1.13	4.34		279	91.	1.31	0.79	2.18	0.90
	1-125 694 4	10	8	2.13	1.04	4.37		17	6	0.90	0.48	1.67	
	125+ 719 4	9	7	2.13	1.04	4.37	0.29	11	4	0.90	0.48	1.67	0.22
Phorate	0 13079 70	76	62.	1.13	0.68	1.85		181	60.	1.40	1.04	1.89	0.22
	1-108 2902 16	22	18	1.29	0.80	2.08		68	23	1.13	0.82	1.56	
	108+ 2717 15	24	20	1.29	0.80	2.08		52	17	1.13	0.82	1.56	

Exposure	Controls (N=19263) n %	Atopic asthma (N=127)					p-trend	Non-atopic asthma (N=314)					p-trend	
		n	%	Odds Ratio*	95% Confidence	95% Confidence		n	%	Odds Ratio*	95% Confidence Interval			
Terbufos														
0	10936	61	59.				162	56.						0.33
1-189	3639	20	22	1.08	0.68	1.72	66	23	1.16	0.86	1.56			
189+	3395	19	20	1.00	0.62	1.63	61	21	1.14	0.84	1.54			
Pyrethroids														
Permethrin (animals)														
0	15784	87	82.				261	89.						0.75
1-119	1208	7	7	1.14	0.55	2.38	15	5	0.82	0.48	1.40			
119+	1105	6	11	1.99	1.10	3.60	17	6	0.99	0.60	1.64			
Permethrin (crops)														
0	15558	87	83.				245	85.						0.15
1-83	1196	7	10	1.60	0.85	3.01	25	9	1.44	0.95	2.20			
83+	1041	6	8	1.60	0.79	3.24	17	6	1.23	0.74	2.04			
Fungicides														
Benomyl														
0	17345	93	93.				283	94.						0.40
1-145	771	4	4	0.95	0.38	2.41	12	4	0.93	0.51	1.70			
145+	611	3	2	0.75	0.23	2.44	7	2	0.71	0.33	1.55			
Captan														
0	15991	91	82.				260	92.						0.72
1-172	1279	7	14	2.08	1.21	3.56	14	5	0.66	0.38	1.14			
172+	351	2	4	2.23	0.89	5.60	8	3	1.37	0.67	2.83			
Chlorothalonil														
0	17629	93	95.				287	94.						0.91
1-203	657	3	2	0.69	0.22	2.23	13	4	1.36	0.76	2.43			
203+	658	3	2	0.71	0.22	2.30	7	2	0.78	0.36	1.70			
Maneb/Mancozeb														
0	17350	93	92.				284	93.						0.85
1-176	752	4	5	1.34	0.56	3.19	9	3	0.75	0.38	1.50			
176+	649	3	3	1.04	0.37	2.95	11	4	1.04	0.55	1.97			
Metalaxyl														
0	15240	82	82.				257	85.						0.66
1-91	1640	9	11	1.30	0.72	2.37	25	8	0.96	0.63	1.47			
91+	1751	9	8	0.97	0.45	2.07	22	7	0.90	0.55	1.47			

Exposure Fumigants 80/20 mix	Controls (N=19263) n %	Atopic asthma (N=127)				p-trend	Non-atopic asthma (N=314)				p-trend
		n	%	Odds Ratio*	95% Confidence		n	%	Odds Ratio*	95% Confidence Interval	
Aluminum Phosphide	0	18055	96	112	88.	282	93.	1.52	0.92	2.52	0.72
	1-55	479	3	6	5	17	6	0.44	0.14	1.38	
	55+	293	2	9	7	3	1	0.44	0.14	1.38	
	0	18248	97	120	95.	293	97.	1.04	0.49	2.24	
	1-41	383	2	4	3	7	2	0.85	0.27	2.69	
Ethylene Dibromide	41+	238	1	2	2	3	1	1.29	0.31	5.28	0.57
	0	18063	96	116	92.	291	95.	1.11	0.51	2.41	
	1-76	406	2	4	3	7	2	1.24	0.56	2.72	
Methyl bromide	76+	372	2	6	5	7	2	2.85	1.17	6.94	0.62
	0	16257	86	111	87.	268	88.	1.06	0.64	1.74	
	1-101	1324	7	9	7	20	7	0.84	0.48	1.46	
	101+	1340	7	7	6	17	6	0.78	0.33	1.82	

*Odds ratios adjusted for age, state, smoking, HPPEE, and BMI

Table E2:

Odds Ratios for specific pesticides and atopy, atopic asthma, and non-atopic asthma among 19,611 male farmers in the Agricultural Health Study

Exposure	Controls (N=17,314)		Atopy Alone (N=1856) 95%				Atopic Asthma (N=127) 95%				Non-atopic Asthma (N=314) 95%								
	n	%	n	%	Ratio*	Confidence Interval	n	%	Ratio*	Confidence Interval	n	%	Ratio*	Confidence Interval					
Herbicides	2,4,5-T	3136	19	403	22	1.32	1.17	1.49	38	31	1.48	0.99	2.21	88	29	1.24	0.95	1.61	
	2,4,5-TP	787	5	131	7	1.52	1.25	1.85	13	11	2.01	1.12	3.62	23	8	1.30	0.84	2.01	
	2,4-D	13523	79	1467	80	1.22	1.07	1.38	110	87	1.59	0.92	2.73	264	85	1.21	0.88	1.67	
	Alachlor	9202	56	974	55	1.01	0.91	1.11	69	57	0.92	0.64	1.34	180	62	1.15	0.90	1.47	
	Atrazine	12663	74	1306	71	0.95	0.85	1.07	94	75	0.95	0.62	1.45	241	78	1.12	0.84	1.48	
	Butylate	4536	27	499	27	1.08	0.97	1.21	42	33	1.24	0.84	1.83	96	31	1.11	0.86	1.43	
	Chlorimuron-ethyl	5473	32	620	34	1.08	0.98	1.20	45	36	1.22	0.84	1.76	99	32	1.06	0.83	1.36	
	Cyanazine	7110	44	700	40	1.01	0.90	1.13	58	49	1.14	0.77	1.70	149	51	1.24	0.96	1.60	
	Dicamba	8688	53	880	50	1.10	0.98	1.23	71	59	1.20	0.79	1.82	173	61	1.29	0.98	1.70	
	EPTC	3261	20	338	20	1.04	0.92	1.19	35	29	1.61	1.06	2.44	71	25	1.25	0.95	1.66	
	Glyphosate	13181	77	1539	84	1.39	1.22	1.58	104	82	1.40	0.89	2.22	247	79	1.18	0.89	1.55	
	Imazethapyr	7314	45	693	40	0.98	0.87	1.10	52	44	0.97	0.64	1.48	123	43	0.88	0.67	1.14	
	Metolachlor	7785	48	797	45	0.97	0.88	1.08	58	48	0.99	0.68	1.44	148	51	1.12	0.88	1.43	
	Metribuzin	6477	38	671	37	1.06	0.95	1.18	55	44	1.17	0.79	1.71	127	42	1.01	0.79	1.30	
Paraquat	2654	16	401	22	1.21	1.07	1.38	28	22	1.70	1.07	2.70	40	13	0.84	0.59	1.20		
Pendimethalin	6389	38	678	37	0.94	0.85	1.04	44	35	0.93	0.64	1.35	120	39	1.13	0.90	1.43		
Petroleum Oil	3496	21	419	23	1.16	1.03	1.30	33	27	1.30	0.86	1.95	84	28	1.37	1.05	1.77		
Trifluralin	8937	55	988	57	1.25	1.12	1.39	62	53	0.81	0.55	1.19	164	55	0.91	0.71	1.16		
Insecticides	Carbamates	Aldicarb	1314	8	188	10	0.99	0.83	1.18	7	6	0.79	0.35	1.79	14	5	0.66	0.37	1.17
		Carbaryl	7079	42	969	53	1.36	1.22	1.52	63	50	1.29	0.88	1.90	140	45	1.01	0.79	1.30
		Carbofuran	4727	29	516	30	1.00	0.90	1.12	42	35	1.10	0.75	1.61	106	37	1.17	0.91	1.49
	Organochlorines	Aldrin	2926	17	305	17	1.13	0.98	1.30	33	27	1.21	0.78	1.88	79	26	0.96	0.72	1.28
		Chlordane	3099	18	477	26	1.50	1.33	1.68	42	34	1.85	1.24	2.74	86	28	1.27	0.98	1.66
		DDT	3841	23	473	26	1.25	1.10	1.43	47	37	1.46	0.95	2.22	124	40	1.44	1.11	1.88
		Dieldrin	616	4	82	5	1.37	1.07	1.75	10	8	1.53	0.78	3.02	13	4	0.64	0.36	1.13
		Heptachlor	2070	12	205	11	1.08	0.92	1.27	34	27	2.03	1.31	3.14	64	21	1.21	0.90	1.63
		Lindane	2222	13	296	16	1.27	1.11	1.46	28	23	1.60	1.04	2.47	44	14	0.86	0.62	1.20
		Toxaphene	1880	11	257	14	1.19	1.03	1.38	18	15	1.09	0.65	1.83	43	14	0.99	0.71	1.38

Exposure	Controls (N=17,314)		Atopy Alone (N=1856) 95%				Atopic Asthma (N=127) 95%				Non-atopic Asthma (N=314) 95%						
	n	%	n	%	Odds Ratio*	Confidence Interval	n	%	Odds Ratio*	Confidence Interval	n	%	Odds Ratio*	Confidence Interval			
Organophosphates																	
Chlorpyrifos	7218	42	783	43	1.02	0.92	1.12	60	48	1.27	0.89	1.81	135	43	1.08	0.86	1.36
Counmaphos	1451	9	187	11	1.21	1.03	1.42	24	21	2.39	1.51	3.77	26	9	0.90	0.59	1.35
Diazinon	3324	20	547	30	1.54	1.38	1.73	38	30	1.65	1.10	2.47	70	23	1.08	0.82	1.43
Dichlorvos	1861	12	224	13	1.23	1.06	1.44	21	18	1.50	0.92	2.44	39	14	1.07	0.75	1.51
Fonofos	3737	23	325	19	0.85	0.75	0.97	37	31	1.41	0.93	2.13	84	29	1.21	0.92	1.58
Malathion	10822	64	1276	70	1.30	1.17	1.45	87	69	1.10	0.75	1.62	229	74	1.38	1.06	1.79
Parathion	1299	8	194	11	1.18	1.00	1.39	19	16	2.09	1.23	3.52	30	10	1.14	0.76	1.70
Phorate	5227	31	529	29	1.03	0.92	1.15	48	39	1.23	0.84	1.81	126	41	1.29	1.01	1.65
Terbufos	6575	40	617	35	0.86	0.77	0.96	51	43	1.03	0.71	1.51	132	45	1.14	0.90	1.46
Pyrethroids																	
Permethrin (animal)	2097	13	261	15	1.24	1.07	1.43	21	18	1.54	0.94	2.50	33	11	0.93	0.64	1.35
Permethrin (Crop)	2089	13	227	13	0.91	0.78	1.05	20	18	1.50	0.92	2.46	42	15	1.27	0.90	1.77
Fungicides																	
Benomyl	1302	8	212	12	1.20	1.02	1.42	10	8	0.99	0.50	1.98	22	7	0.88	0.55	1.40
Captan	1685	11	259	15	1.40	1.22	1.62	22	19	1.91	1.19	3.05	29	10	0.92	0.62	1.35
Chlorothalonil	1227	7	193	11	1.17	0.98	1.39	6	5	0.66	0.28	1.54	22	7	1.13	0.70	1.80
Maneb/Mancozeb	1314	8	206	11	1.15	0.97	1.36	13	11	1.43	0.75	2.72	20	7	0.82	0.50	1.34
Metaxyl	3217	19	450	25	1.10	0.97	1.26	26	21	1.28	0.78	2.09	50	16	0.90	0.64	1.26
Fumigants																	
80/20 mix	712	4	101	6	1.35	1.09	1.68	15	12	2.22	1.27	3.88	24	8	1.29	0.84	1.99
Aluminum Phosphide	562	3	75	4	1.15	0.90	1.48	6	5	1.36	0.59	3.11	12	4	1.15	0.64	2.07
Ethylene Dibromide	701	4	116	6	1.16	0.94	1.44	10	8	2.10	1.04	4.27	16	5	1.27	0.74	2.18
Methyl Bromide	2463	14	359	20	1.06	0.92	1.23	16	13	0.87	0.46	1.61	41	13	0.98	0.66	1.46

*Odds ratios adjusted for age, state, smoking, HPEE and BMI.

Table E3 Odds ratios for specific pesticides and atopic and non-atopic asthma among 18,569 male farmers in the Agricultural Health Study excluding individuals with chronic bronchitis or farmer's lung

Exposure	Controls (N=18,283) n %	Atopic asthma (N=82)				Non-atopic asthma (N=204)									
		n	%	Odds Ratio*	95% Confidence Interval	n	%	Odds Ratio*	95% Confidence Interval						
Herbicides	2,4,5-T	3315	19	27	34	1.76	1.08	2.85	44	22	0.90	0.63	1.27		
	2,4,5-TP	861	5	7	9	1.69	0.77	3.70	11	6	0.95	0.51	1.76		
	2,4-D	14242	79	73	89	1.96	0.96	3.99	171	84	1.17	0.79	1.72		
	Alachlor	9646	56	45	57	0.98	0.62	1.54	119	63	1.25	0.92	1.69		
	Atrazine	13273	73	61	74	0.98	0.59	1.65	157	78	1.20	0.84	1.70		
	Butylate	4761	27	25	31	1.15	0.71	1.88	56	28	0.96	0.70	1.32		
	Chlorimuron-ethyl	5756	32	27	33	1.13	0.70	1.80	71	36	1.24	0.92	1.66		
	Cyanazine	7391	43	38	49	1.25	0.76	2.05	95	51	1.27	0.92	1.74		
	Dicamba	9048	53	43	55	1.07	0.64	1.79	105	57	1.13	0.81	1.59		
	EPTC	3402	20	22	29	1.63	0.97	2.74	47	26	1.32	0.93	1.87		
	Insecticides	Glyphosate	14043	77	66	81	1.28	0.73	2.23	164	80	1.28	0.90	1.82	
			Imazethapyr	7625	45	30	40	0.80	0.48	1.35	81	43	0.89	0.64	1.24
			Metolachlor	8155	47	39	51	1.16	0.73	1.84	95	51	1.15	0.85	1.55
		Metribuzin	6760	38	34	43	1.14	0.70	1.83	83	42	1.04	0.77	1.41	
			Paraquat	2901	16	15	19	1.36	0.74	2.51	22	11	0.68	0.42	1.09
		Pendimethalin	6728	37	30	37	1.05	0.67	1.66	81	41	1.21	0.91	1.62	
Petroleum Oil		3702	21	22	28	1.43	0.87	2.36	48	24	1.15	0.82	1.60		
Trifluralin		9420	55	37	48	0.69	0.43	1.11	101	53	0.82	0.61	1.11		
Carbamates		Aldicarb	1431	8	5	6	0.92	0.35	2.45	9	5	0.65	0.32	1.32	
		Carbaryl	7611	42	38	47	1.13	0.70	1.83	92	46	1.06	0.78	1.44	
	Carbofuran	4932	29	23	29	0.90	0.55	1.47	64	35	1.14	0.84	1.55		
	Organochlorines	Aldrin	3023	17	19	24	1.06	0.60	1.86	44	22	0.85	0.59	1.23	
		Chlordane	3354	19	21	27	1.27	0.75	2.15	53	27	1.23	0.88	1.71	
		DDT	4038	23	29	36	1.35	0.80	2.29	71	36	1.26	0.90	1.76	
		Dieldrin	656	4	6	8	1.43	0.60	3.40	5	3	0.39	0.16	0.96	
	Heptachlor	2115	12	16	20	1.30	0.72	2.34	31	16	0.91	0.60	1.36		
	Lindane	2354	13	13	17	1.10	0.60	2.01	24	12	0.74	0.48	1.14		
	Toxaphene	2014	11	14	17	1.37	0.75	2.48	21	11	0.73	0.46	1.17		

Exposure	Controls (N=18,283)		Atopic asthma (N=82)					Non-atopic asthma (N=204)				
	n	%	n	%	Odds Ratio*	95% Confidence Interval	n	%	Odds Ratio*	95% Confidence Interval		
Organophosphates												
Chlorpyrifos	7620	42	38	46	1.23	0.79	86	43	1.05	0.79	1.39	
Coumaphos	1540	9	18	24	2.93	1.72	14	8	0.76	0.44	1.31	
Diazinon	3647	21	21	26	1.32	0.78	44	22	1.04	0.73	1.48	
Dichlorvos	1957	12	11	14	1.21	0.63	25	14	1.09	0.71	1.69	
Fonofos	3845	22	21	27	1.22	0.72	57	31	1.39	1.00	1.94	
Malathion	11424	64	56	69	1.15	0.71	146	73	1.33	0.97	1.83	
Parathion	1399	8	13	16	2.31	1.22	19	10	1.16	0.70	1.90	
Phorate	5422	30	29	36	1.17	0.72	84	42	1.46	1.08	1.97	
Terbufos	6818	40	30	39	0.93	0.58	86	45	1.19	0.89	1.61	
Pyrethroids												
Permethrin (animals)	2226	13	9	12	0.94	0.46	19	10	0.80	0.49	1.29	
Permethrin (crops)	2200	13	9	12	1.01	0.50	27	15	1.29	0.85	1.95	
Fungicides												
Benomyl	1444	8	5	6	0.71	0.27	16	8	1.00	0.58	1.74	
Captan	1837	11	16	22	2.24	1.28	19	10	0.91	0.56	1.48	
Chlorothalonil	1371	8	3	4	0.48	0.15	18	9	1.44	0.84	2.44	
Maneb/Mancozeb	1459	8	8	10	1.28	0.57	13	7	0.81	0.44	1.49	
Metaxyl	3514	20	15	19	1.06	0.56	32	16	0.86	0.56	1.31	
Fumigants												
80/20 mix	751	4	10	12	2.35	1.18	14	7	1.22	0.70	2.13	
Aluminum phosphide	594	3	5	6	1.88	0.75	8	4	1.22	0.60	2.50	
Ethylene Dibromide	779	4	7	9	2.33	0.99	13	7	1.66	0.90	3.05	
Methyl bromide	2712	15	11	13	0.96	0.45	30	15	1.16	0.72	1.87	

*Odds ratios adjusted for age, state, smoking, HPEE, and BMI