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Supplemental Material

Pesticide use and age-related macular degeneration in the Agricultural Health Study

Martha P. Montgomery, Eric Postel, David M. Umbach, Marie Richards, Mary Watson, Aaron Blair, Honglei Chen, Dale P. Sandler, Silke Schmidt, Freya Kamel

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Supplemental Table S1. Characteristics of early and late incident AMD cases and controls, AHS 1993-2007

Characteristic	Control		Early AMD (N = 57)					Late AMD (N = 72)				
	N	%	N	%	OR [a]	95% CI		N	%	OR [a]	95% CI	
Age												
50-69	28801	74	15	26	1.0	Reference		13	18	1.0	Reference	
70-79	8286	21	31	54	7.2	3.9	13.3	35	49	9.2	4.9	17.5
80+	2021	5	11	19	10.7	4.9	23.5	24	33	26.4	13.4	52.1
Gender												
Men	22658	58	33	58	1.0	Reference		46	64	1.0	Reference	
Women	16450	42	24	42	1.3	0.7	2.3	26	36	1.1	0.6	1.8
Race/ethnicity												
White, non-Hispanic	37984	97	56	98	1.0	Reference		70	97	1.0	Reference	
Other	1124	3	1	2	0.5	0.1	3.6	2	3	0.7	0.2	3.0
State												
Iowa	25612	65	38	67	1.0	Reference		33	46	1.0	Reference	
North Carolina	13496	35	19	33	0.7	0.4	1.2	39	54	1.5	0.9	2.4
Education												
≤ High school	19877	54	38	68	1.0	Reference		40	56	1.0	Reference	
> High school	17046	46	18	32	0.8	0.5	1.5	31	44	1.5	0.9	2.5
Ever smoke												
No	23292	60	27	47	1.0	Reference		33	46	1.0	Reference	
Yes	15816	40	30	53	1.7	1.0	3.0	39	54	1.7	1.0	2.8
Alcohol consumption (frequency)												
Never	16100	42	29	52	1.0	Reference		38	55	1.0	Reference	
< 1 to 3 times per month	13471	35	17	30	1.0	0.5	1.8	13	19	0.6	0.3	1.2
Once a week or more	8530	22	10	18	0.9	0.4	1.8	18	26	1.2	0.7	2.3
BMI (kg/m2)												
<25	12123	32	21	38	1.0	Reference		23	32	1.0	Reference	
25-30	17139	45	27	49	0.9	0.5	1.6	33	46	1.0	0.6	1.8
>30	8798	23	7	13	0.5	0.2	1.2	15	21	1.1	0.5	2.1

[a] All models include age, gender, and smoking

Supplemental Table S2. Incident AMD and ever use of specific pesticides, stratified by gender, AHS 1993-2007

	Men							Women						
	Case		Control					Case		Control				
	N	%	N	%	OR[a]	95% CI		N	%	N	%	OR[a]	95% CI	
Insecticide (any)	92	97	21052	93	3.1	1.0	9.7	34	52	7506	46	1.4	0.9	2.2
Organochlorines (any)	79	83	13150	58	2.5	1.5	4.3	19	30	1720	11	3.0	1.7	5.1
Aldrin	36	46	5257	26	1.5	1.0	2.4							
Chlordane	45	55	6740	33	1.7	1.1	2.6	16	26	956	6	5.0	2.8	8.8
DDT	58	67	6892	33	1.8	1.1	2.9	12	19	836	5	2.8	1.5	5.3
Dieldrin	18	23	1874	9	1.6	0.9	2.8	3	5	86	1	8.0[b]	2.4	26.6
Heptachlor	34	44	4305	21	1.9	1.2	3.0							
Lindane	27	34	4808	23	1.6	1.0	2.6	5	8	340	2	4.5	1.8	11.5
Toxaphene	26	33	3813	19	1.5	0.9	2.4							
Organophosphates (any)	89	94	20061	89	2.5	1.1	5.8	28	42	5096	31	1.8	1.1	3.0
Chlorpyrifos	41	44	9696	43	1.3	0.8	1.9	4	6	826	5	1.4	0.5	4.0
Coumaphos	8	10	2054	10	1.0	0.5	2.0							
Diazinon	45	54	7371	36	1.9	1.3	3.0	13	21	2033	13	2.1	1.1	3.9
Dichlorvos	12	15	2594	13	1.4	0.8	2.7	6	10	527	3	3.2	1.4	7.5
Fonofos	19	23	5078	24	1.1	0.6	1.8							
Malathion	76	86	15902	75	2.0	1.1	3.7	27	43	3987	25	2.4	1.4	3.9
Parathion	26	33	3653	18	1.8	1.1	2.9							
Phorate	40	51	7661	37	1.8	1.2	2.8							
Terbufos	33	40	8628	41	1.1	0.7	1.8							
Other insecticides														
Aldicarb	5	6	2387	12	0.5	0.2	1.3							
Carbaryl	63	74	12926	61	1.4	0.9	2.3	28	43	5964	37	1.3	0.8	2.2
Carbofuran	28	34	6822	33	1.0	0.6	1.6	3	5	409	3	2.2[b]	0.7	7.1
Permethrin (crops)	13	16	2805	14	1.6	0.9	3.0	3	5	392	2	2.6[b]	0.8	8.4
Permethrin (animals)	5	6	2886	14	0.7	0.3	1.8	6	9	655	4	3.8	1.6	8.9
Herbicides (any)	94	99	22149	98	3.1	0.4	22.3	25	38	6824	42	1.1	0.7	1.8
Phenoxyacetate (any)	83	87	18311	81	1.8	1.0	3.2	18	28	2911	18	1.2	0.2	9.2

2,4,5-T	44	52	5674	28	1.9	1.2	2.9	2	3	167	1	2.6	0.6	10.8
2,4,5-TP	18	23	2314	11	1.8	1.1	3.1	0	0	76	0	0.0	0.0	
2,4-D	81	86	17803	79	1.8	1.0	3.2	17	27	2886	18	1.8	1.0	3.2
Triazine (any)	73	77	18185	80	1.1	0.7	1.8	6	9	1229	8	0.0	0.0	
Atrazine	70	74	16885	75	1.2	0.8	2.0	4	6	1004	6	1.1[b]	0.4	3.2
Cyanazine	39	49	9566	46	1.4	0.9	2.1							
Metribuzin	37	47	10341	50	1.2	0.8	1.9	3	5	415	3	2.1[b]	0.7	6.8
Other herbicides														
Alachlor	56	65	12262	59	1.5	1.0	2.3	3	5	892	6	1.0[b]	0.3	3.1
Butylate	28	35	7564	37	1.1	0.7	1.8							
Chlorimuron-ethyl	28	35	7513	37	1.3	0.8	2.1							
Dicamba	42	52	11201	54	1.2	0.8	1.9							
EPTC	15	19	4322	21	1.1	0.6	1.9							
Glyphosate	80	84	17387	77	1.8	1.0	3.1	23	35	6106	38	1.2	0.7	2.0
Imazethapyr	32	42	8902	43	1.3	0.8	2.1							
Metolachlor	39	49	10056	48	1.3	0.8	2.0							
Paraquat	29	35	5273	26	1.5	0.9	2.3							
Pendimethalin	31	40	9388	45	1.0	0.6	1.6							
Petroleum oil	38	47	10410	51	1.0	0.6	1.5							
Trifluralin	46	57	11649	56	1.2	0.8	1.9	5	8	1126	7	1.4	0.6	3.5
Fungicides (any)	41	43	8232	36	1.3	0.8	1.9	10	16	1105	7	2.5	1.2	4.9
Benomyl	16	19	2307	11	1.6	0.9	2.8							
Captan	15	19	2517	12	1.8	1.0	3.2	5	8	492	3	2.7	1.1	6.9
Chlorothalonil	9	10	1736	8	1.1	0.5	2.2							
Maneb	10	13	2267	11	0.9	0.5	1.8	3	5	360	2	2.0[b]	0.6	6.3
Metalaxyl	22	27	5081	24	1.1	0.7	1.8							
Fumigants (any)	28	29	5604	25	1.1	0.7	1.7							
Carbon tetrachloride	11	14	1404	7	1.5	0.8	2.8							
Ethylene dibromide	10	13	848	4	2.9	1.5	5.7							
Methyl bromide	17	18	3829	17	0.9	0.5	1.5							

[a] Adjusted for age and smoking

[b] OR based on fewer than 5 cases

Supplemental Table S3. Incident early and late AMD and ever use of specific pesticides, AHS 1993-2007

	Control		Early AMD vs Control					Late AMD vs Control					Late vs Early AMD [b]		
	N	%	N	%	aOR[a]	95% CI		N	%	aOR[a]	95% CI		aOR[a]	95% CI	
Insecticides (any)	28558	73	49	86	3.1	1.4	7.0	59	81	1.7	0.9	3.3	0.5	0.2	1.6
Organochlorines (any)	14870	38	40	70	5.1	2.6	10.0	42	59	2.0	1.1	3.5	0.4	0.2	0.9
Aldrin	5433	15	19	35	2.4	1.2	4.8	12	21	0.9	0.4	1.7	0.4	0.1	0.9
Chlordane	7696	21	25	45	2.9	1.5	5.3	23	40	1.9	1.0	3.4	0.7	0.3	1.6
DDT	7728	21	28	51	2.8	1.4	5.3	29	47	1.6	0.9	2.9	0.6	0.2	1.4
Dieldrin	1960	5	13	24	3.6	1.8	7.3	6	11	1.0	0.4	2.5	0.3	0.1	0.9
Heptachlor	4490	12	18	33	3.0	1.5	5.9	13	23	1.3	0.7	2.7	0.4	0.2	1.2
Lindane	5148	14	11	20	1.6	0.8	3.3	13	22	1.7	0.9	3.3	1.1	0.4	2.8
Toxaphene	3957	11	10	18	1.3	0.6	2.8	14	24	1.9	1.0	3.6	1.4	0.5	3.8
Organophosphates (any)	25157	64	46	81	3.7	1.8	7.7	53	73	1.7	0.9	3.1	0.5	0.2	1.2
Chlorpyrifos	10522	27	15	26	1.7	0.9	3.1	19	28	1.1	0.6	2.0	1.0	0.4	2.4
Coumaphos	2302	6	4	8	1.2	0.4	3.5	4	6	0.9	0.3	2.7	0.8	0.2	3.3
Diazinon	9404	26	19	34	1.5	0.8	2.7	29	48	2.7	1.5	4.6	1.8	0.8	3.9
Dichlorvos	3121	9	5	9	1.2	0.5	3.1	10	16	2.5	1.2	4.9	2.0	0.6	6.5
Fonofos	5463	15	8	14	1.1	0.5	2.3	8	13	0.9	0.4	2.0	0.9	0.3	2.7
Malathion	19889	53	40	71	2.8	1.4	5.4	45	69	2.0	1.1	3.6	0.7	0.3	1.7
Parathion	3877	11	10	18	1.6	0.8	3.3	14	24	2.1	1.1	4.2	1.3	0.5	3.6
Phorate	8070	22	18	32	1.9	1.0	3.7	17	29	1.5	0.8	2.9	0.8	0.3	2.0
Terbufos	9210	25	17	31	1.7	0.9	3.2	15	23	1.0	0.5	1.9	0.6	0.2	1.5
Other insecticides															
Aldicarb	2511	7	0	0				5	9	1.2	0.5	3.2			
Carbaryl	18890	51	36	65	1.8	1.0	3.2	41	63	1.4	0.8	2.4	0.8	0.4	1.8
Carbofuran	7231	20	13	24	1.3	0.7	2.6	13	21	1.0	0.5	1.9	0.7	0.3	1.9
Permethrin (crops)	3197	9	9	17	2.9	1.4	6.2	6	9	1.4	0.6	3.4	0.5	0.2	1.5
Permethrin (animals)	3541	10	6	11	1.8	0.8	4.4	4	6	1.2	0.4	3.3	0.6	0.2	2.4
Herbicides (any)	28973	74	43	75	1.4	0.6	3.0	56	78	1.5	0.7	3.0	1.1	0.4	3.0
Phenoxyacetate (any)	21222	55	40	70	3.2	1.6	6.4	43	60	1.2	0.7	2.3	0.4	0.2	1.0

2,4,5-T	5841	16	21	38	3.1	1.6	6.1	19	31	1.7	0.9	3.1	0.5	0.2	1.4
2,4,5-TP	2390	7	6	11	1.5	0.6	3.5	9	15	2.0	0.9	4.2	1.4	0.4	4.4
2,4-D	20689	54	39	68	2.9	1.5	5.8	41	58	1.2	0.7	2.2	0.4	0.2	1.0
Triazine (any)	19414	50	34	60	2.9	1.3	6.4	34	47	0.8	0.4	1.5	0.3	0.1	0.8
Atrazine	17889	47	30	53	2.0	0.9	4.3	34	47	1.0	0.6	1.9	0.5	0.2	1.4
Cyanazine	10175	28	22	40	2.5	1.3	4.9	14	22	0.8	0.4	1.6	0.3	0.1	0.8
Metribuzin	10756	30	17	30	1.3	0.7	2.5	15	26	1.0	0.5	2.0	0.8	0.3	2.0
Other herbicides															
Alachlor	13154	36	23	42	1.7	0.8	3.2	29	43	1.5	0.8	2.7	0.9	0.4	2.2
Butylate	7886	22	15	27	1.7	0.9	3.3	8	13	0.6	0.3	1.3	0.3	0.1	1.0
Chlorimuron-ethyl	7887	22	13	23	1.4	0.7	2.8	10	17	0.9	0.4	1.9	0.6	0.2	1.8
Dicamba	12012	33	18	33	1.2	0.6	2.4	18	28	0.9	0.5	1.7	0.8	0.3	1.9
EPTC	4618	13	6	11	1.1	0.4	2.6	8	13	1.2	0.6	2.6	1.1	0.4	3.7
Glyphosate	23493	61	37	65	1.5	0.8	2.7	46	64	1.3	0.8	2.3	0.9	0.4	2.0
Imazethapyr	9503	26	13	24	1.1	0.6	2.2	12	20	1.0	0.5	1.9	0.9	0.3	2.3
Metolachlor	10728	29	20	37	2.0	1.0	4.0	15	23	0.8	0.4	1.5	0.4	0.2	1.0
Paraquat	5542	15	8	14	0.9	0.4	2.0	17	27	2.1	1.1	3.9	2.3	0.9	6.4
Pendimethalin	9912	27	15	27	1.1	0.6	2.2	10	17	0.6	0.3	1.2	0.5	0.2	1.4
Petroleum oil	11165	31	8	15	0.3	0.2	0.8	24	39	1.8	1.0	3.2	5.1	1.9	13.8
Trifluralin	12775	35	21	40	1.7	0.9	3.3	20	31	0.9	0.5	1.6	0.5	0.2	1.3
Fungicides (any)	9337	24	18	33	1.6	0.8	2.9	25	34	1.6	0.9	2.7	1.0	0.5	2.3
Benomyl	2548	7	1	2				12	19	2.7	1.4	5.4	13.3	1.6	108.0
Captan	3009	8	8	15	2.2	1.0	4.7	8	13	1.7	0.8	3.7	0.8	0.3	2.4
Chlorothalonil	1965	5	4	7	1.3	0.5	3.7	5	7	1.2	0.5	2.9	0.9	0.2	3.5
Maneb	2627	7	4	7	0.8	0.3	2.4	6	10	1.2	0.5	2.8	1.4	0.4	5.3
Metalaxyl	5459	15	8	15	0.9	0.4	2.0	12	19	1.3	0.7	2.7	1.5	0.5	4.1
Fumigants (any)	6032	16	10	19	1.0	0.5	2.2	12	17	0.8	0.4	1.6	0.8	0.3	2.1
Carbon tetrachloride	1542	4	3	6	1.0	0.3	3.1	5	8	1.3	0.5	3.4	1.4	0.3	6.3
Ethylene dibromide	884	2	3	6	2.1	0.6	6.9	5	9	3.4	1.3	8.7	1.6	0.3	7.3
Methyl bromide	4106	11	6	11	0.9	0.4	2.1	8	11	0.8	0.4	1.7	0.9	0.3	2.9

[a] Adjusted for age, gender, and smoking

[b] Reference group is Early AMD

Supplemental Table S4. Association of AMD with pesticides modeled as pairs. *

	alone	aldrin	chlordane	DDT	dieldrin	heptachlor	lindane	toxaphene	diazinon	malathion	parathion	phorate	carbaryl	2,4-D	2,4,5-T	2,4,5-TP	glyphosate	paraquat	benomyl
aldrin	**1.5**		1.1	1.2	1.2	1.1		1.4				1.2			1.2				
chlordane	**2.4**	**2.4**		**2.1**	**2.3**	**2.2**	**2.3**	**2.4**	**2.1**	**2.0**					**2.0**				
DDT	**2.1**	**1.9**	**1.5**		**1.9**	**1.9**		**2.0**							**1.7**				
dieldrin	**1.9**	**1.8**	1.4	1.6		1.4		**1.8**							1.6	**1.8**			
heptachlor	**1.9**	**1.8**	1.5	**1.6**	**1.7**		**1.6**	**1.9**				**1.6**			**1.6**	**1.8**			
lindane	**1.9**		1.5			**1.7**			1.6										
toxaphene	1.5	1.3	1.0	1.2	1.3	1.2					1.2								
diazinon	**2.0**		**1.5**				**1.7**			**1.6**	**1.7**		**1.9**						
malathion	**2.2**		**1.9**										**2.2**	**1.9**			**2.1**		
parathion	**1.9**							**1.7**										**1.9**	**2.0**
phorate	**1.7**	**1.6**				1.5													
carbaryl	**1.4**								1.1	1.1							1.3		
2,4-D	**2.0**									1.4							**1.7**		
2,4,5-T	**1.7**	**1.8**	**1.6**	**1.7**	**1.7**	**1.6**										**1.9**			
2,4,5-TP	**1.8**				1.2	1.2									1.1				
glyphosate	**1.4**									1.1			1.3	1.3					
paraquat	1.5										1.2								1.3
benomyl	**1.7**										1.0							1.4	

*The table includes all pesticides correlated with at least one other pesticide (r≥0.25), where at least one of the pair was associated with AMD risk. Each ROW shows ORs for a particular pesticide modeled either by itself ("alone") or in the presence of the correlated pesticides indicated in the COLUMNS. Bolded ORs had CIs that excluded 1.0. Blanks indicate that the pair was not correlated (r<0.25).

Supplemental Table S5. Association of AMD with selected pesticides and pesticide groups. Comparison of ORs from the manuscript with those calculated after imputing case-control status to individuals not screened.

	Original Analysis[a]		Scenario 1[b]		Scenario 2[c]		Scenario 3[d]	
Exposure	**OR**	**95% CI**	**OR**	**95% CI**	**OR**	**95% CI**	**OR**	**95% CI**
Organochlorine insecticides	2.7	1.8-4.0	2.2	1.7-2.9	2.6	1.9-3.5	1.8	1.3-2.4
Organophosphate insecticides	2.0	1.3-3.0	1.8	1.3-2.5	2.2	1.6-3.0	1.5	1.1-2.0
Phenoxyacetate herbicides	1.9	1.2-2.8	1.6	1.2-2.3	2.0	1.5-2.8	1.4	1.0-1.9
Chlordane	2.4	1.7-3.6	2.0	1.5-2.8	2.5	1.8-3.3	1.6	1.2-2.1
DDT	2.1	1.4-3.1	1.8	1.3-2.5	2.3	1.7-3.1	1.5	1.1-2.0
Heptachlor	1.9	1.2-3.0	2.2	1.6-3.1	2.6	1.9-3.6	1.7	1.2-2.3
Diazinon	2.0	1.4-2.9	2.0	1.5-2.6	2.3	1.8-3.0	1.6	1.2-2.1
Malathion	2.2	1.5-3.3	2.0	1.5-2.7	2.4	1.8-3.3	1.6	1.2-2.1
Phorate	1.7	1.1-2.6	1.8	1.3-2.5	2.2	1.6-3.0	1.5	1.1-2.0
2,4,5-T	2.0	1.3-3.0	1.4	0.9-2.9	1.8	1.2-2.8	1.2	0.8-1.8
2,4-D	1.8	1.2-2.7	1.6	1.2-2.2	1.9	1.4-2.5	1.4	1.0-1.9
Captan	2.0	1.2-3.3	1.8	1.2-2.7	2.1	1.4-3.1	1.6	1.1-2.4

[a] From Table 2 in the manuscript

[b] With the addition of individuals whose case-control status was imputed based on covariate values as described in the text

[c] With the addition of individuals whose case-control status was imputed after increasing the probability that exposed would be cases by a factor of 1.25 and decreasing the probability that they would be controls by a factor of 1.25

[d] With the addition of individuals whose case-control status was imputed after decreasing the probability that exposed would be cases by a factor of 1.25 and increasing the probability that they would be controls by a factor of 1.25

Quantitative Bias Analysis

Because relatively few of the individuals designated as potential cases were confirmed as cases and included in the analysis, we undertook a quantitative bias analysis to assess selection bias attributable to non-response within this sub-group. The potential cases were 1328 subjects that we expected to be enriched for actual cases (Figure 1 in the manuscript). By their nature, such bias analyses require assigning speculative, but one hopes reasonably defensible, values to certain unknown parameters. Sometimes, a validation sub-study or external information can offer guidance – but we had no such information to guide our choice of values. We proceeded as follows.

First, we divided the 1328 subjects into 769 responders (for whom we had reached an AMD/noAMD decision) and 559 non-responders; the latter category also included individuals whose medical records were not obtained (n=34) or for whom a decision on diagnosis could not be reached (n=6). Logistic regression adjusted for age, gender, smoking, and Amsler-grid use indicated that, for 35 of the 55 pesticides or groupings in Table 2, OR estimates for the association of being a responder with exposure exceeded 1; however, only eight had 95% confidence limits that excluded 1 (among those with ORs less than 1, none of the 95% CIs excluded 1). Thus, we had some evidence that ever-use of some pesticides was associated with the propensity to respond among our potential cases. We had, however, no data to evaluate whether this association of propensity to respond with exposure might differ by actual case status (determined as described in the manuscript) – knowledge that could have helped us to allocate the non-responders to case-control status.

Trying to accomplish this allocation in a principled way in the face of this unknown, we modeled our approach after one in Lash et al.'s (2009) text *Applying Quantitative Bias Analysis to Epidemiologic Data*. They call the approach "projecting the exposed proportion among non-participants." Our version differs from their example in four respects: we know the exposures but have to project case-control status; we do not have the benefit of the short questionnaire among a subset of non-participants that they utilize; we have to account for several additional covariates besides exposure; and our process involves only potential cases so that, after projecting case-control status for non-responders in that subset, we have to carry them into the full case-control analysis.

We used the probability of being a case among responders in the potential case group as a starting point. Using responders only, we fit a "case/control" logistic regression with age, gender, smoking, exposure, Amsler-grid use, and exposure*Amsler-grid use; we included this interaction because we wanted to allow the case allocation to differ among the two large subcategories of potential cases. We used results of this logistic regression to estimate the probability that a responder was a case conditional on all the covariates, giving separate probabilities for the 3x2x2x2x2=48 separate covariate-defined cells. We categorized the non-responders into the same 48 covariate-defined cells for allocation into case or controls status. We considered three scenarios to bracket reasonable possibilities: (1) we applied the estimated probabilities directly to allocate the non-responders; (2) we increased the estimated probability for exposed by 1.25 times and decreased it by 1.25 times for unexposed before allocating the non-responders; (3) we decreased the probability for exposed by 1.25 times and increased the probability for unexposed 1.25 times before allocating the non-responders. We ensured that the resulting probabilities were always between 0 and 1. Note that the value 1.25 here is arbitrary; it seemed to us to offer a reasonably strong differential (1.25 squared, or over 1.5-fold) between exposed and unexposed non-responders in the probability of being allocated as a case.

We allocated the potential cases who did not respond to the screening interview under each of the three scenarios by multiplying the estimated probability of being a case by the number of non-responders in the covariate-defined cell; the number of controls in that cell was then the number of non-responders minus the expected number of cases. These values were not necessarily integer but entered the subsequent analysis using weights. For each scenario, we took these additional designated cases and controls, appended them to the cases and controls from our entire original sample, and fit the case-control analysis reported in Table 2 using the enlarged data set.

The following table presents results of this analysis for selected pesticide exposures – those judged to be "consistent" as described in the manuscript. Scenario 1 attenuates most (but not all) ORs somewhat compared to their values in Table 2 in the manuscript but only for 2,4,5-T does the CI contain the null value; Scenario 2 increases most (but not all) ORs slightly compared to their values in Table 2; Scenario 3 attenuates ORs even more strongly than does Scenario 1 but again only for 2,4,5-T does the CI contain the null value (phenoxyacetate herbicides and 2,4-D have lower confidence limits that exceed 1 in the second or third decimal place despite being listed as 1.0 in the table).

Thus, this quantitative bias analysis indicates that all the pesticides highlighted in the manuscript as enhancing risk of AMD (with the possible exception of 2,4,5-T) are also seen to enhance risk in each of the three selection-bias scenarios that we considered, albeit often with ORs attenuated toward the null. We conclude that our results were not produced by selection bias.

References

Lash TL, Fox M, Fink AK. 2009. Applying Quantitative Bias Analysis to Epidemiologic Data. New York: Springer, 43 – 58.