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Supplemental Material

A Review of Nonoccupational Pathways for Pesticide Exposure in Women Living in Agricultural Areas

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Table S1. Pesticides evaluated in each reviewed publication.

Study, Source	Herbicides	Insecticides	Fungicides
Agricultural Health Pilot Study			
Melnyk et al. 1997	2,4-D, alachlor, atrazine, dacthal, dicamba, metolachlor, trifluralin	a-chlordane, aldicarb, aldrin, carbaryl, carbofuran, chlorpyrifos, DDD, DDE, DDT, dieldrin, fonofos, g-chlordane, heptachlor, lindane, malathion, permethrin, phorate, propoxur, pyrethrins, terbufos	captan, chlorothalonil, dicloran, folpet, metalaxyl
California Childhood Leukemia Study			
Gunier et al. 2011	dacthal, simazine	carbaryl, chlorpyrifos, diazinon, phosmet	iprodione
CHAMACOS			
Bradman et al. 2007	NA	DDE, DDT, HCB, HCH	NA
Harnly et al. 2009	dacthal	acephate, azinphos-methyl, bensulide, chlorpyrifos, cis-permethrin, DCPA, DDE, DDT, diazinon, dimethoate, fenamiphos, fonofos, iprodione, malathion, methamidiphos, methidathion, methomyl, oxydemeton-methyl, phosmet, trans-permethrin	iprodione, vinclozoline
Huen et al. 2012	NA	chlorpyrifos, diazinon	NA
Farm Family Exposure Study			
Acquavella et al. 2004	glyphosate	NA	NA
Alexander et al. 2006	NA	chlorpyrifos	NA
Alexander et al. 2007	2,4-D	NA	NA
For Healthy Kids Study			
Coronado et al. 2006	NA	azinphos-methyl (low detection rates: chlorpyrifos, diazinon, malathion, methyl parathion, phosmet)	NA
Coronado et al. 2011	NA	azinphos-methyl (low detection rates: DMPT, phosmet)	NA
Coronado et al. 2004	NA	azinphos-methyl (low detection rates: chlorpyrifos, diazinon, malthion, methyl parathion, phosmet)	NA

Study, Source	Herbicides	Insecticides	Fungicides
Curl et al. 2002	NA	azinphos-methyl, chlorpyrifos, diazinon, malathion, methyl parathion, phosmet	NA
Thompson et al. 2008	NA	azinphos-methyl, malathion, phosmet	NA
Coronado et al. 2012	NA	azinphos-methyl	NA
Fresno Pesticide Exposure Study			
Deziel et al. 2013	dacthal, simazine, trifluralin	carbaryl, chlordane, chlorpyrifos, cyfluthrin, cypermethrin, diazinon, methoxychlor, permethrin, piperonyl butoxide, propoxur	NA
Iowa Farm Family Pesticide Exposure Study			
Curwin et al. 2007	2,4-D, acetochlor, alachlor, atrazine, glyphosate, metolachlor	chlorpyrifos	NA
Curwin et al. 2005	2,4-D, acetochlor, alachlor, atrazine, glyphosate, metolachlor	chlorpyrifos	NA
Iowa Pesticide Exposure Studies			
Lozier et al. 2012	atrazine	NA	NA
Golla et al. 2012	atrazine	NA	NA
Non-Hodgkin Lymphoma Study			
Ward et al. 2006	2,4-D, acetochlor, alachlor, atrazine, bentazon, dicamba, fluazifop-p-butyl, metolachlor, pendimethalin, trifluralin	NA	NA
Ontario Pesticide Exposure Assessment Study			
Arbuckle et al. 2006	2,4-D	NA	NA
Arbuckle and Ritter 2005	2,4-D, MCPA	NA	NA
Oregon Exposure Studies			
McCauley et al. 2001	NA	azinphos-methyl (low detection rates: captan, carbaryl, chlorpyrifos, DDE, DDT, malathion, pentachlorophenol, phosmet, pipernoyl butoxide)	NA
McCauley et al. 2003	NA	azinphos-methyl, chlorpyrifos, diazinon, malathion, parathion, phosmet	NA
McCauley et al. 2006	NA	azinphos-methyl, chlorpyrifos, diazinon, ethyl parathion, malathion, methyl parathion, phosmet	NA
University of Washington Studies			
Fenske et al. 2002	NA	chlorpyrifos, ethyl parathion	NA

Study, Source	Herbicides	Insecticides	Fungicides
Lu et al. 2000	NA	azinphos-methyl, phosmet	NA
Lu et al. 2004	NA	azinphos-methyl, chlorpyrifos, diazinon, phosmet	NA
Simcox et al. 1995	NA	azinphos-methyl, phosmet, chlorpyrifos, ethyl parathion	NA
Weppner et al. 2006	NA	methamidophos	NA
Other Studies			
Freeman et al. 2004	atrazine, simazine	azinphos-methyl, chlorpyrifos, demeton-O, ethion, demeton-S, diazinon, disulfoton, ethyl parathion, fenithrothion, fonofos, malathion, methyl parathion	NA
Quandt et al. 2004	atrazine, metolachlor, oxyfluorfen, pendimethalin, simazine	a-chlordane, carbaryl, chlorpyrifos, cis-permethrin, DDE, DDT, diazinon, esfenvalerate, g-chlordane, heptachlor, lindane, methoxychlor, propoxur, total disulfoton, trans-permethrin	ortho-phenylphenol
Richards et al. 2001	propanil	NA	NA
Semchuk et al. 2003	2,4-D, bromoxynil, dicamba, ethalfluralin, fenoxaprop, triallate, trifluralin, MCPA	NA	NA
Fitzgerald et al. 2001	2,4-D, bromoxynil, dicamba, diclofop-methyl, fenoxyprop, MCPA, triallate, trifluralin	NA	NA

2,4-D, 2,4-dichlorophenoxyacetic acid; DCPA, 2,3,5,6-tetrachloroterephthalate; DDE, dichlorodiphenyldichloroethylene; DDT, dichloro-diphenyl-trichloroethane; DMPT, dimethylphosphorothidate, DDD, dichlorodiphenyldichloroethane; HCB, hexachlorobenzene, HCH, hexachlorocyclohexane; MCPA, 2-methyl-4-chlorophenoxyacetic acid; NA, not applicable

Table S2. Evidence for the relationship between pesticide levels in biological or environmental samples and hygiene factors in the reviewed literature.[a]

Study, Source	Overall	Laundry	Changing Clothes/ Shoes	House Cleaning	Pets
CHAMACOS					
Bradman et al. 2007	NA	o	o	NA	NA
Harnly et al. 2009	NA	NA	+	+	NA
Farm Family Exposure Study					
Acquavella et al. 2004	NA	o	NA	NA	NA
Alexander et al. 2006	NA	o	NA	NA	NA
Alexander et al. 2007	NA	o	NA	NA	NA
For Healthy Kids Study					
Coronado et al. 2012	o	o	o	o	NA
Thompson et al. 2008	o	NA	NA	NA	NA
Fresno Pesticide Exposure Study					
Deziel et al. 2013	NA	NA	NA	NA	+
Iowa Pesticide Exposure Studies					
Lozier et al. 2012	NA	o	+	+	o
Golla et al. 2012	NA	NA	o	NA	+
Iowa Farm Family Pesticide Exposure Study					
Curwin et al. 2005	NA	NA	descriptive	o	o
Oregon Exposure Studies					
McCauley et al. 2003	o	NA	+	+	o
McCauley et al. 2006	NA	NA	NA	+	NA
University of Washington Exposure Studies					
Fenske et al. 2002	NA	o	o	o	NA
Lu et al. 2000	NA	o	o	o	NA
Simcox et al. 1995	NA	NA	NA	o	o
Other Studies					
Quandt et al. 2004	NA	NA	NA	+	
Semchuk et al. 2003	NA	o	NA	NA	NA

[a]Symbol "+" indicates association between pesticide levels and the exposure pathway was observed for at least one pesticide ($p<0.1$); "o", no associations between pesticide levels and exposure pathway observed ($p>0.1$).

CHAMACOS, Center for the Health Assessment of Mothers and Children of Salinas; NA, not applicable.

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