Article	Article name	Publication year	Health outcome	Exposure assessment method	Exposure assessment method type	Study design	Study population	Sample size	Number of cases	Number of controls	Number of exposed cases	Exposure definition and comparison	Risk measure	Risk estimate	Lower CI	Upper CI	Type of pesticide	Study location
Demers 2006. Exp. AI	Cancer and occupational exposure to pentachlorophenol and tetrachloropheno (Canada)	1 2006	Non-Hodgkin's lymphoma	Expert case-by-case a assessment	Expert-level assessment	Retrospective cohor	Sawmill t workers	27464	92		17	5+ exposure years of cumulative dermal pentachlorophenol exposure.	RR	1.71	0.91	3.24	Pentachlorophenol	Canada
	Cancer and occupational exposure to											Standardized incidence rates calculated based on comparison with						
Demers 2006. JT. GenP	pentachlorophenol and tetrachloropheno (Canada)	2006	Non-Hodgkin's lymphoma	a Job title	Group-based assessment	Retrospective cohor	Sawmill t workers	27464	92		92	British Columbia provincial rates. Workers exposure classified based on	SIR	0.99	0.81	1.21	Pesticides in general	Canada
Lynge 1998. Class	Cancer incidence in Danish phenoxy herbicide workers, 1947-1993 Non-hodgkin lymphoma risk and	1998	Non-Hodgkin's lymphoma	a Registers	Group-based assessment	Retrospective cohor	Pesticide	2119	6		6	their work area listed in personnel files.	SIR	1.10	0.4	2.6	Phenoxy herbicides	Denmark
Alavanja 2014. Al	insecticide, fungicide and fumigant use in the agricultural health study Cancer risks in a population-based study	2014	Non-Hodgkin's lymphoma	a Algorithm/model	Expert-level assessment	Prospective cohort	applicators from AHS	54306	523		14	Intensity-weighted lifetime days. Agricultural worker versus not agricultura	RR I	1.8	1.0	3.2	Lindane	USA
Kachuri 2017. M. GenP	70,570 agricultural workers: results from the Canadian census health and Environment cohort (CanCHEC)	2017	Non-Hodgkin's lymphoma	a Job title	Group-based assessment	Prospective cohort	Agricultural workers	70570	500		500	worker in all other members of the cohort. Agricultural worker	HR	1.10	1.00	1.21	Pesticides in general	Canada
Kachuri 2017.W. GenP	Cancer risks in a population-based study of 70,570 agricultural workers: results from the Canadian census health and Environment cohort (CanCHEC)		Non-Hodgkin's lymphoma	a Tobassia	Group-based assessment	Prospective cohort	Agricultural workers	70570	135		135	versus not agricultura worker in all other members of the cohort.	I HR	1.02	0.86	1.22	Pesticides in general	Canada
Lemarchand 2017. M. GenP	Cancer incidence in the AGRICAN cohort study (2005-2011)	2017	Non-Hodgkin's lymphoma		Self-reported exposure	Prospective cohort	Farmers (as insured by MSA in France)		644		310	Pesticide use on crops (yes versus no)	SIR	1.02	0.90	1.12	Pesticides in general	
Lemarchand 2017. W. GenP	Cancer incidence in the AGRICAN cohort study (2005-2011)	2017	Non-Hodgkin's lymphoma	a Self-reported exposure	Self-reported exposure	Prospective cohort	Farmers (as insured by MSA in France)	98794	367		48	Pesticide use on crops (yes versus no) Pesticide	SIR	1.10	0.81	1.45	Pesticides in general	USA
Burns 2011. AI	Cancer incidence of 2,4-D production workers	2011	Non-Hodgkin's lymphoma	a Job title	Group-based assessment	Retrospective cohor	Pesticide manufacturers t (male)	1256	14		14	manufacturers versus rates for white males as comparison.	SIR	1.36	0.74	2.29	2.4D	USA
												Number of years since pesticide license. Highest category >10						
							Pesticide applicators					years. Standardized incidence rates calculated for number of years since						
Wiklund 1987. Class	Risk of malignant lymphoma in Swedish pesticide appliers	1987	Non-Hodgkin's lymphoma	a Self-reported job history	Group-based assessment	Prospective cohort	(mainly agricultural)	20245	21		12	obtained pesticide license. Incidence rates for working as a farmer	SIR	1.16	0.60	2.02	Phenoxy herbicides	Sweden
Kristensen 1996. M. GenP	Incidence and risk factors of cancer amon men and women in Norwegian agriculture	e 1996	Non-Hodgkin's lymphoma	a Job title	Group-based assessment	Prospective cohort	Farmers	66080	69	NA	69	compared with rural reference population. Incidence rates for working as a farmer	SIR	0.82	0.64	1.03	Pesticides in general	Norway
Kristensen 1996. W. GenP	Incidence and risk factors of cancer amon men and women in Norwegian agriculture		Non-Hodgkin's lymphoma	a Job title	Group-based assessment	Prospective cohort	Farmers	30218	20	NA	20	compared with rural reference population. Level of exposure by	SIR	1.04	0.64	1.56	Pesticides in general	Norway
	Soft tissue sarcoma and non-Hodgkin's lymphoma in workers exposed to phenox herbicides, chlorophenols, and dioxins:			Expert case-by-case		Nested Case-control	Pesticide					categories (nonexposed, low, medium, high). Cumulative exposure						
Kogevinas 1995. Class	two nested case-control studies Exposure to pesticides as risk factor for non-Hodgkin's lymphoma and hairy cell leukemia: pooled analysis of two Swedish	1995	Non-Hodgkin's lymphoma	a assessment	Expert-level assessment	study	manufacturers Cases from cancer	21183	32		7	lagged 5 years. Exposed versus non- exposed. Minimum exposure of 8 hours	OR	1.36	0.46	4.03	Phenoxy herbicides	International
Hardell 2002. SRE. Type	case-control studies Risk of lymphoma subtypes by	2002	Non-Hodgkin's lymphoma	a Self-reported exposure	Self-reported exposure	Case-control study	registries	1656	515	1141	18	(one working day). Medium-high cumulative exposure	OR	2.02	0.97	4.23	Fungicides	Sweden
Ferri 2017. JEM. AI Ferri 2017. JT. GenP	occupational exposure in Southern Italy Risk of lymphoma subtypes by occupational exposure in Southern Italy	2017	Non-Hodgkin's lymphoma	Job exposure matrix Self-reported job history	Expert-level assessment Group-based assessment	Case-control study Case-control study	Population bas		128	76 72	7	verus none. Agricultural worker versus not agricultura worker	OR I OR	1.27	0.3	5.41	Paraquat Pesticides in general	Italy
Balasubramaniam 2013. GenP	Case-control study of risk factors for Non- Hodgkin lymphoma in Mumbai, India		Non-Hodgkin's lymphoma		Self-reported exposure	Case-control study	Hospital base	1771	388	1383	29	Ever versus never exposure.	OR	6.1	3.3	11.2	Pesticides in general	
	The relationship between exposure to pesticides and the occurrence of lymphoic	d										Duration of exposure. High exposure is defined as >median number of years for						
Zakerinia 2012. GenP	neoplasm A hospital-based case-control study of nor Hodgkin lymphoid neoplasms in Shanghai analysis of environmental and	2012 n-	Non-Hodgkin's lymphoma	a Job title	Group-based assessment	Case-control study	Hospital base	400	200	200	34	exposed subjects.	OR	2.12	1.2	3.7	Pesticides in general	Iran
Wong 2010. SRE. Type	occupational risk factors by subtypes of the WHO classification	2010	Non-Hodgkin's lymphoma	a Self-reported exposure	Self-reported exposure	Case-control study	Hospital base	1947	649	1298	25	Ever exposure to pesticides	OR	1.77	1.02	3.05	Herbicides	China

Article	Article name A hospital-based case-control study of nor	1-	Health outcome	Exposure assessment method	Exposure assessment method type	Study design	Study population	Sample size	Number of cases	Number of controls	Number of exposed cases	Exposure definition and comparison	Risk measure	Risk estimate	Lower CI	Upper CI	Type of pesticide	Study location
	Hodgkin lymphoid neoplasms in Shanghai analysis of environmental and	:																
Wong 2010. JT. Type	occupational risk factors by subtypes of the WHO classification Occupational exposure to pesticides and	2010	Non-Hodgkin's lymphoma	Job title	Group-based assessment	Case-control study	Hospital base	1947	649	1298	195	Farmworker (all types) Occupational pesticide	OR	1.43	1.14	1.78	Pesticides in general	China
Orsi 2009, GenP	lymphoid neoplasms among men: results	2009	Non-Hodgkin's lymphoma	Expert case-by-case	Expert-level assessment	Case-control study	Hoonital base	680	244	436	32	use verified by	OR	1.5	0.9	2.5	Pesticides in general	Promos
Orsi 2009. GenP	of a French case-control study	2009	Non-Hodgkin's lymphoma	assessment	Expert-level assessment	Case-control study	Hospital base	680	244	436	32	experts.	OR	1.5	0.9	2.5	Pesticides in general	France
	Occupational risk factors for non- Hodgkin's lymphoma: a population-based											Cumulative exposure defined as the product of cumulative hours worked in each exposed job, and the respective exposure intensity and						
Richardson 2008. Type	case-control study in Northern Germany Occupation and lymphoid malignancies:		Non-Hodgkin's lymphoma	Job exposure matrix	Expert-level assessment	Case-control study	Population base	9 767	242	525	23	probability scores. Use of pesticides for crops at least once per	OR	2.08	1.15	3.77	Herbicides	Germany
Orsi 2007. GenP	results from a French case-control study	2007	Non-Hodgkin's lymphoma	Self-reported exposure	Self-reported exposure	Case-control study	Hospital base	1100	399	701	14	week Number of dipped	OR	3.6	1.5	8.6	Pesticides in general	France
	Risk of non-Hodgkin's lymphoma and exposure to hexachlorocyclohexane, a											sheep (200-683). Proxy for the highest					Hexachlorocyclohexar	
Rafnsson 2006. AI	nested case-control study Cancer and pesticides: an overview and	2006	Non-Hodgkin's lymphoma	Registers	Group-based assessment	Case-control study	Sheep owners	266	45	221	15	exposed.	OR	3.44	1.31	9.04	e	Iceland
	some results of the Italian multicenter cas control study on hematolymphopoietic	e-		Expert case-by-case								Probability of use >low and lack of						
Miligi 2006. AI	malignancies.	2006	Non-Hodgkin's lymphoma	assessment	Expert-level assessment	Case-control study	Population base	2377	1145	1232	9	protective equipment	OR	4.4	1.1	29.1	2.4D	Italy
Fritschi 2005. GenP	Occupational exposure to pesticides and risk of non-Hodgkin's lymphoma	2005	Non-Hodgkin's lymphoma	Expert case-by-case assessment	Expert-level assessment	Case-control study	Population base	1388	694	694	26	Substantial exposure versus none exposure.	OR	3.09	1.42	6.70	Pesticides in general	Australia
												The distribution of the 15 most commonly used pesticides (in pounds of active ingredient applied in counties where farm workers were employed) was examined, and cut points were created to construct categories in						
	Lymphohematopoietic cancers in the United Farm Workers of America (UFW),						Members of					dichotomies of low versus high use or						
Mills 2005. AI	1988-2001	2005	Non-Hodgkin's lymphoma	Registers	Group-based assessment	Case-control study	farmers union	360	60	300	60	tertiles of use.	OR	3.8	1.85	7.81	2.4D	USA
Chiu 2004. Type	Agricultural pesticide use, familial cancer, and risk of non-Hodgkin lymphoma Pesticide product use and risk of non-	2004	Non-Hodgkin's lymphoma	Self-reported exposure	Self-reported exposure	Case-control study	Population base	3790	937	2853	77	Ever versus never use. Highest number of years in any	OR	1.3	1.0	1.8	Fungicides	USA
Kato 2004. JT. GenP	Hodgkin lymphoma in women	2004	Non-Hodgkin's lymphoma	Job title	Group-based assessment	Case-control study	Population base	839	376	463	27	occupation with pesticide exposure.	OR	1.8	0.93	3.48	Pesticides in general	USA
Kato 2004. SRE. GenP	Pesticide product use and risk of non- Hodgkin lymphoma in women Occupational risk factors for selected	2004	Non-Hodgkin's lymphoma	Self-reported exposure	Self-reported exposure	Case-control study	Population base	839	376	463	43	Applied pesticides on a farm (yes-no)	OR	1.18	0.59	2.38	Pesticides in general	USA
Briggs 2003. Afr.Am. GenP	cancers among African American and White men in the United States	2003	Non-Hodgkin's lymphoma	Self-reported exposure	Self-reported exposure	Case-control study	Population base	2073	66	132	5	Ever versus never use.	OR	1.2	0.4	4.0	Pesticides in general	USA
Briggs 2003, White, GenP	Occupational risk factors for selected cancers among African American and	2003							893	1488	92		on.	0.9		1.7		
Briggs 2003. White. GenP	White men in the United States Environmental risk factors for non- Hodgkin's lymphoma: a population-based		Non-Hodgkin's lymphoma	Self-reported exposure	Self-reported exposure	Case-control study	Population base	2073	893	1488	92	Ever versus never use.	OK	0.9	0.6	1.7	Pesticides in general	USA
Fabbro-Peray. 2001. SRE. GenP	case-control study in Languedoc- Roussillon, France Environmental risk factors for non-	2001	Non-Hodgkin's lymphoma	Self-reported exposure	Self-reported exposure	Case-control study	Population base	1470	445	1025	41	Handling of pesticides	OR	1.0	0.7	1.6	Pesticides in general	France
Fabbro-Peray. 2001. JT. GenP	Hodgkin's lymphoma: a population-based case-control study in Languedoc- Roussillon, France	2001	Non-Hodgkin's lymphoma	Self-reported job history	Self-reported exposure	Case-control study	Population base	1470	445	1025	40	Agricultural occupation	OR	1.5	0.9	2.3	Pesticides in general	France
10000 1 clay. 2001. j dem	Rodamon, Funce	2001	Ton Hougain Stylinphonia	Sen reported job instory	sen reported exposure	cuse control study	r opulation base	1170		1025	10	Degree of expousre:	O.K	1.0	0.5	2.0	resticues in general	Trunce
Fritschi 1996. GenP	Lymphoma, myeloma and occupation: results of a case-control study	1996	Non-Hodgkin's lymphoma	Expert case-by-case assessment	Expert-level assessment	Case-control study	Population base	1358	215	NA	6	non-exposed, non- substantial, substantial expousure.	OR	0.9	0.4	2.3	Pesticides in general	Canada
Nanni 1996. CEM. AI	Chronic lymphocytic leukaemias and non- Hodgkin's lymphomas by histological type in farming-animal breeding workers: a population case-control study based on a priori exposure matrices		Non-Hodgkin's lymphoma	Crop exposure matrix	Expert-level assessment	Case-control study	Farmers	1164	187	977	28	Exposure to DDT according to crop exposure matrix.	OR	1.70	0.91	3.17	DDT	Italy
Nanni 1996. SRE. Al	Chronic lymphocytic leukaemias and non- Hodgkin's lymphomas by histological type in farming-animal breeding workers: a population case-control study based on a priori exposure matrices	1996	Non-Hodgkin's lymphoma	Self-reported exposure	Self-reported exposure	Case-control study	Farmers	1164	187	977	27	Exposure to DDT (yes/no)	OR	1.74	0.93	3.27	DDT	Italy

Article	Article name	Publication year	Health outcome	Exposure assessment method	Exposure assessment method type	Study design	Study population	Sample size	Number of cases	Number of controls	Number of exposed cases	Exposure definition and comparison	Risk measure	Risk estimate	Lower CI	Upper CI	Type of pesticide	Study location
	Exposure to phenoxyacetic acids, chlorophenols, or organic solvents in relation to histopathology, stage, and anatomical localization of non-Hodgkin's					,	P-P									.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	3,6-3-,6-3-3-3-3	,
Hardell 1994. GenP	lymphoma. Non-Hodgkin's lymphoma among phenoxy	1994	Non-Hodgkin's lymphoma	Job title	Group-based assessment	Case-control study	Hospital base	94	20	74	20	Farmer (yes/no)	OR	0.7	0.4	1.4	Pesticides in general	Sweden
Woods 1989. JT. GenP	herbicide-exposed farm workers in western Washington state Non-Hodgkin's lymphoma among phenoxy herbicide-exposed farm workers in	1989	Non-Hodgkin's lymphoma	Self-reported job history	Group-based assessment	Case-control study	Agricultural workers	377	181	196	181	Duration of work as a farmer. Regular work with	OR	0.92	0.5	1.6	Pesticides in general	USA
Woods 1989. SRE.AI	western Washington state	1989	Non-Hodgkin's lymphoma	Self-reported exposure	Self-reported exposure	Case-control study	Agricultural workers Pesticide	377	181	196	NA	DDT (yes/no) Incidence rates of prostate cancer for	OR	1.68	0.9	3.3	DDT	USA
Lerro 2019. Private. JT.GenP	Cancer incidence in the Agricultural Health Study after 20 years of follow-up	2019	Prostate cancer	Job title	Group-based assessment	Prospective cohort	applicators (private)	51165	3169		3169	private applicators compared with rates for other cancers. Incidence rates of	SIR	1.15	1.11	1.19	Pesticides in general	USA
	Cancer incidence in the Agricultural						Pesticide applicators (commercial)					prostate cancer for commercial applicators compared with rates for other						
Lerro 2019. Commercial. JT. GenP	Health Study after 20 years of follow-up Cancer risks in a population-based study of 70,570 agricultural workers: results from	2019 f	Prostate cancer	Job title	Group-based assessment	Prospective cohort	(agricultural)	4708	149		149	cancers. Agricultural work compared with other	SIR	1.02	0.86	1.19	Pesticides in general	USA
Kachuri 2017. GenP	the Canadian census health and Environment cohort (CanCHEC) Cancer incidence in the AGRICAN cohort	2017	Prostate cancer	Job title	Group-based assessment	Retrospective cohor	Agricultural t workers	70570	2625		2625	employed members of the cohort. Work on farm	HR	1.11	1.06	1.16	Pesticides in general	Canada
Lemarchand 2017. JT. GenP	study (2005-2011) Cancer incidence in the AGRICAN cohort	2017	Prostate cancer	Self-reported job history	Group-based assessment	Prospective cohort	Farmers	98794	2538		2032	(yes/no). Pesticide use on crops	SIR	1.07	1.03	1.12	Pesticides in general	France
Lemarchand 2017. SRE. GenP	study (2005-2011)	2017	Prostate cancer	Self-reported exposure	Self-reported exposure	Prospective cohort		98794	2538		1345	(yes versus no). Pesticide	SIR	1.09	1.03	1.15	Pesticides in general	France
Burns 2011. AI	Cancer incidence of 2,4-D production workers	2011	Prostate cancer	Job title	Group-based assessment	Prospective cohort	Pesticide manufacturers (male)	1108	62		62	manufacturers versus rates for white males as comparison.	SIR	0.74	0.57	0.94	2.4D	USA
	The influence of occupational exposure to pesticides, polycyclic aromatic hydrocarbons, diesel exhaust, metal dust, metal fumes, and mineral oil on prostate			Expert case-by-case								Cumulative exposure. Third tertile versus no						
Boers 2004. GenP	cancer: a prospective cohort study	2005	Prostate cancer	assessment	Expert-level assessment	Prospective cohort	Population bas	e 58279	1376		27	exposure. Incidence rates for applicators compared with that of the	RR	0.60	0.37	0.95	Pesticides in general	Netherlands
Fleming 1999. GenP	Cancer incidence in a cohort of licensed pesticide applicators in Florida	1999	Prostate cancer	Pesticide licence	Group-based assessment	Retrospective cohor		33658	353		353	Florida general population. Incidence rates in applicators versus	SIR	1.91	1.72	2.13	Pesticides in general	USA
Dich 1998. GenP	Prostate cancer in pesticide applicators in Swedish agriculture	1998	Prostate cancer	Pesticide licence	Group-based assessment	Retrospective cohor		20025	401		401	expected rate in Swedish male population. Incidence rates in	SIR	1.13	1.02	1.24	Pesticides in general	Sweden
Frost 2011. GenP	Mortality and cancer incidence among British agricultural pesticide users	2011	Prostate cancer	Pesticide licence	Group-based assessment	Prospective cohort	Certified pesticide users (agricultural)	65910	205		205	applicators verus that in the Great Britain population. Incidence rates in sheep owners versus	SIR	1.07	0.93	1.22	Pesticides in general	Great Britain
Rafnsson 2006. AI	Cancer incidence among farmers exposed to lindane while sheep dipping	2006	Prostate cancer	Registers	Group-based assessment	Retrospective cohor	t Sheep owners	8311	541		541	that of the Icelanding male and female population. Workers exposure	SIR	0.92	0.85	1.00	Lindane	Iceland
Lynge 1998. GenP	Cancer incidence in Danish phenoxy herbicide workers, 1947-1993	1998	Prostate cancer	Registers	Group-based assessment	Retrospective cohor	Pesticide t manufacturers	2119	15		15	classified based on their work area listed in personnel files.	SIR	1.00	0.6	1.7	Pesticides in general	Denmark
Zhong 1996. GenP	Cancer incidence among Icelandic pesticide users	1996	Prostate cancer	Pesticide licence	Group-based assessment	Prospective cohort	Certified pesticide users	2449	10		10	Incidence rates in pesticide users versus that of Icelanding male and femal population.		0.70	0.33	1.29	Pesticides in general	Iceland
Kristensen 1996. GenP	Incidence and risk factors of cancer among men and women in Norwegian agriculture		Prostate cancer	Job title	Group-based assessment	Retrospective cohor	t Farmers	66080	129		129	Incidence rates in farmers verus in the rural population of Norway.	SIR	0.90	0.75	1.07	Pesticides in general	Norway
Hessel 2004. AI	A nested case-control study of prostate cancer and atrazine exposure	2004	Prostate cancer	Expert case-by-case assessment	Expert-level assessment	Nested case-control	Population bas	e 142	12	130	12	Cumulative exposure applied as continous variable.	OR	1.01	0.95	1.07	Atrazine	USA
												Exposure according to quartiles of chemical						
Mills 2003. AI	Prostate cancer risk in California farm workers	2003	Prostate cancer	Registers	Group-based assessment	Nested case-control	Farmers	1332	222	1110	33	use according to a pesicide use reporting system in California. Cumulative exposure	OR	2.37	1.22	4.61	Lindane	USA
Band 2011. AI	Prostate cancer risk and exposure to pesticides in British Columbia farmers	2011	Prostate cancer	Job exposure matrix	Expert-level assessment	Case-control study	Farmers	5152	1153	3999	14	above median compared with no exposure.	OR	2.31	1.09	4.88	МСРА	Canada

Supplemental material

											Number of							
Article	Article name	Publication year	Health outcome	Exposure assessment method	Exposure assessment method type	Study design	Study population	Sample size	Number of cases	Number of controls	exposed cases	Non-substantial	Risk measure	Risk estimate	Lower CI	Upper CI	Type of pesticide	Study location
Fritschi 2007. GenP	Occupational risk factors for prostate cancer and benign prostatic hyperplasia: a case-control study in Western Australia	2007	Prostate cancer	Expert case-by-case assessment	Expert-level assessment	Case-control study	Population base	1008	606	402	68	exposure to any pesticides versus not exposed.	OR	1.02	0.69	1.50	Pesticides in general	Australia
Pavuk 2006. Type	Prostate cancer in US Air Force veterans o the Vietnam war	f 2006	Prostate cancer	Biomonitoring (blood)	Biomonitoring	Retrospective cohort	US Air Force veterans	2578	62	2516	28	Highest cumulative exposure verus lowest. Farmes who ever	RR	1.32	0.75	2.34	Herbicedes (Agent Orange)	USA
Meyer 2007. GenP	A case-control study of farming and prostate cancer in African-American and Caucasian men	2007	Prostate cancer	Self-reported exposure	Self-reported exposure	Case-control study	Population base	797	405	392	177	mixed/applied pesticides versus non- farmers. Duration of exposure. More than 15 years of exposure verus non-	OR	1.6	1.2	2.2	Pesticides in general	USA
Settimi 2003. Class	Prostate cancer and exposure to pesticide in agricultural settings	s 2003	Prostate cancer	Expert case-by-case assessment	Expert-level assessment	Case-control study	Hospital base Cases from	783	124	659	10	exposed farmers and	OR	2.7	1.2	6.3	Organochlorine pesticides	Italy
Van der Gulden 1995. GenP	Work environment and prostate cancer risk	1995	Prostate cancer	Self-reported exposure	Self-reported exposure	Case-control study	cancer registries	2341	469	1872	22	Substantial level of	OR	1.47	0.88	2.46	Pesticides in general	Netherlands
Parent 2009. GenP	Does exposure to agricultural chemicals increase the risk of prostate cancer among farmers? Risk factors for prostate cancer in	2009	Prostate cancer	Expert case-by-case assessment	Expert-level assessment	Case-control study	Farmers	124			17		OR	2.3	1.1	5.1	Pesticides in general	Canada
Subahir 2009. GenP	Universiti Kebangsaan Malaysia Medical Centre: a case-control study	2009	Prostate cancer	Self-reported exposure	Self-reported exposure	Case-control study	Hospital base	224	112	112	9	0	OR	5.57	1.74	17.8	Pesticides in general	Malaysia
Strom 2008. GenP	Prostate cancer in Mexican-Americans: identification of risk factors	2008	Prostate cancer	Job exposure matrix	Expert-level assessment	Case-control study	Population base	350	176	174	48	Substantial pesticide exposure versus	OR	3.44	1.84	6.44	Pesticides in general	USA
Aronson 1996. GenP	Occupational risk factors for prostate cancer: results from a case-control study in Montreal, Quebec, Canada	1996	Prostate cancer	Expert case-by-case assessment	Expert-level assessment	Case-control study	Population base	1999	449	1550	19		OR	1.09	0.57	2.08	Pesticides in general	Canada
Ewings 1996. GenP	A case-control study of cancer of the prostate in Somerset and east Devon	1996	Prostate cancer	Self-reported exposure	Self-reported exposure	Case-control study	Hospital base	146	40	106	15	Pesticide use (yes versus no).	OR	0.63	0.28	1.42	Pesticides in general	Great Britain
Petrovitch 2002. GenP	Plantation work and risk of Parkinson disease in a population-based longitudinal study	2002	Parkinson's disease	Self-reported job history	Group-based assessment	Prospective cohort	Honolulu Hearth Program cohort.	7986	116		12	Plantation work versus no plantation work.	RR	1.9	1.00	3.5	Pesticides in general	USA
Ascherio 2006. GenP	Pesticide exposure and risk for Parkinson's disease	2006					Participants of the Cancer Prevention Study II Nutrition	143325	30		13	Farmer exposed to pesticides versus unexposed non-	RR		0.9	2.7		
Ascherio 2006. GenP	Pesticide use and incident Parkinson's disease in a cohort of farmers and their	2006	Parkinson's disease	Self-reported exposure	Self-reported exposure	Prospective cohort	Cohort. Male pesticide applicators in	143325	30		13	farmer. Highest number of lifetime days of ever use of pesticides compared with lowest number of lifetime	KK	1.6	0.9	2.7	Pesticides in general	USA
Shrestha 2020. GenP	spouses	2020	Parkinson's disease	Self-reported exposure	Self-reported exposure	Prospective cohort	AHS.	66110	183		82	days. Occupational pesticide	RR	0.79	0.59	1.06	Pesticides in general	USA
Baldi 2003b. M. GenP	Neurodegenerative Diseases and Exposure to Pesticides in the elderly	2003	Parkinson's disease	Job exposure matrix	Expert-level assessment	Prospective cohort	Elderly French population	1507	10		NA	exposure according to job-exposure-matrix.	RR	5.63	1.47	21.57	Pesticides in general	France
Baldi 2003b. W. GenP	Neurodegenerative Diseases and Exposure to Pesticides in the elderly	e 2003	Parkinson's disease	Job exposure matrix	Expert-level assessment	Prospective cohort	Elderly French population	1507	14		NA	Occupational pesticide exposure according to job-exposure-matrix. Highest exposure	RR	1.02	0.22	4.82	Pesticides in general	France
Feldman 2011. GenP	Occupational exposure in parkinsonian disorders: a 43-year prospective cohort study in men	2011	Parkinson's disease	Job exposure matrix	Expert-level assessment	Prospective cohort	Population base	14169	204		21		HR	0.9	0.5	1.4	Pesticides in general	Sweden
	Parkinson's disease among gardeners exposed to pesticidesa Danish cohort						Professional					Hospitalization rate due to Parkinson's disease in gardeners verus that of the						
Kenborg 2012. GenP	study Pesticide use in agriculture and Parkinson's disease in the AGRICAN cohor	2012 t	Parkinson's disease	Job title	Group-based assessment	Retrospective cohort	male gardeners	3124	28		28	general population. Highest duration of	SHR	1.14	0.76	1.65	Pesticides in general	Denmark
Pouchieu 2018. AI	study Agricultural work and the risk of Parkinson's disease in Denmark, 1981-	2018	Parkinson's disease	Crop exposure matrix	Expert-level assessment	Prospective cohort	Farmers Agricultural	149810	1732	148078	28	use verus unexposed. All men and women in agriculture and	OR	1.58	0.48	5.25	Maneb	France
Tuchsen 2000. GenP	1993 Environmental risk factors in Parkinson's	2000	Parkinson's disease	Job title	Group-based assessment	Prospective cohort	workers	128935	134		134		SHR	1.32	1.11	1.56	Pesticides in general	Denmark
Koller 1990. GenP	disease Association between Parkinson's disease	1990	Parkinson's disease	Self-reported exposure	Self-reported exposure	Case-control study	hospital_based Inhabitants of	300	150	150	39	versus no). Occupational pesticide	OR	1.08	0.69	1.69	Pesticides in general	USA
Baldi 2003a. GenP	and exposure to pesticides in southwestern France Genetic and environmental risk factors for	2003	Parkinson's disease	Job exposure matrix	Expert-level assessment	Case-control study	agricultural region	336	84	252	19	exposure verus non- exposed. Pesticide exposure in farming versus no	OR	2.2	1.11	4.34	Pesticides in general	France
Chan 1998. GenP	Parkinson's disease in a Chinese population	1998	Parkinson's disease	Self-reported exposure	Self-reported exposure	Case-control study	Hospital base	528	215	313	19	pesticide exposure in farming.	OR	0.75	0.26	2.22	Pesticides in general	China
Dhillon 2008. Type	Pesticide/environmental exposures and Parkinson's disease in East Texas	2008	Parkinson's disease	Self-reported exposure	Self-reported exposure	Case-control study	Hospital base	184	100	84	5	Insecticide applications to farm animals/animal areas.	OR	4.4	0.5	38.1	Insecticides	USA

											Number of							
Article	Article name	Publication year	Health outcome	Exposure assessment method	Exposure assessment method type	Study design	Study population	Sample size	Number of cases	Number of controls	exposed cases	Exposure definition and comparison Agricultural work (yes	measure	Risk estimate	Lower CI	Upper CI	Type of pesticide	Study location
Dick 2007. GenP	Occupational titles as risk factors for Parkinson's disease Familial influence on parkinsonism in a rural area of Turkey	2007	Parkinson's disease	Job title	Group-based assessment	Case-control study	Population base	590	170	420	49	versus no) as defined by ISIC.	OR	1.3	0.84	2.02	Pesticides in general	International
Duzcan 2003. GenP	(Kızılcaboluk-Denizli): A community-based case-control study	2003	Parkinsonism	Self-reported exposure	Self-reported exposure	Case-control study	Population base	144	36	108	15	Pesticide exposure (yes versus no) Number of years of professional exposure.	OR	2.96	1.31	6.69	Pesticides in general	Turkey
Elbaz 2009. GenP	Professional exposure to pesticides and Parkinson disease Nutritional and occupational factors	2009	Parkinson's disease	Expert case-by-case assessment	Expert-level assessment	Case-control study	Inhabitants of agricultural region	781	224	557	19	More than 38 years of exposure versus no exposure.	OR	2.00	1.00	3.5	Pesticides in general	France
Fall 1999. GenP	influencing the risk of Parkinson's disease a case-control study in southeastern Sweden	1999	Parkinson's disease	Self-reported exposure	Self-reported exposure	Case-control study	Population base	376	113	263	10	Handling pesticides within any occupation.	OR	3.3	1.00	10.0	Pesticides in general	Sweden
	Occupational factors and risk of Parkinson's disease: A population-based											Pesticide worker compared with subject						
Firestone 2010. JT. M. GenP	Occupational factors and risk of	2010	Parkinson's disease	Self-reported job history	Group-based assessment	Case-control study	Population base	578	252	326	8	never exposed. Pesticide exposure	OR	1.53	0.54	4.35	Pesticides in general	USA
Firestone 2010. SRE. M. GenP	Parkinson's disease: A population-based case-control study Pesticide exposure on southwestern Taiwanese with MnSOD and NQO1	2010	Parkinson's disease	Self-reported exposure	Self-reported exposure	Case-control study	Population base	578	252	326	12	compared with subject never exposed.	OR	0.6	0.3	1.29	Pesticides in general	USA
Fong 2007. GenP	polymorphisms is associated with increased risk of Parkinson's disease Chemical exposures and Parkinson's	2007	Parkinson's disease	Self-reported exposure	Self-reported exposure	Case-control study	Hospital base	308	153	155	85	Pesticide use (yes versus no). Pesticide use in	OR	1.68	1.03	2.76	Pesticides in general	Taiwan
Frigerio 2006. GenP	disease: a population-based case-control study The risk of Parkinson's disease with	2006	Parkinson's disease	Self-reported exposure	Self-reported exposure	Case-control study	Population base	278	149	129	14	farming (yes versus no). Ever versus never	OR	1.3	0.6	3.1	Pesticides in general	USA
Gorell 1998. SRE. Type	exposure to pesticides, farming, well water, and rural living The risk of Parkinson's disease with	1998	Parkinson's disease	Self-reported exposure	Self-reported exposure	Case-control study	Population base	608	144	464	NA	exposure to herbicides.	OR	4.1	1.37	12.24	Herbicides	USA
Gorell 1998. JT. GenP	exposure to pesticides, farming, well water, and rural living A case-control study of Parkinson's diseas	1998 e	Parkinson's disease	Job title	Group-based assessment	Case-control study	Population base	608	144	464	NA	Farming (yes versus no).	OR	2.79	1.03	7.55	Pesticides in general	USA
Hetzman 1994. M. GenP	in a horticultural region of British Columbia A case-control study of Parkinson's diseas	1994 e	Parkinson's disease	Self-reported exposure	Self-reported exposure	Case-control study	Population base	131	71	60	33	Pesticide use (yes versus no).	NA	2.32	1.1	4.88	Pesticides in general	Canada
Hetzman 1994. W. GenP	in a horticultural region of British Columbia	1994	Parkinson's disease	Self-reported exposure	Self-reported exposure	Case-control study	Population base	120	56	64	9	Pesticide use (yes versus no).	NA	1.36	0.48	3.85	Pesticides in general	Canada
Kuopio 1999. Type	Environmental Risk Factors in Parkinson's Disease Job exposure matrix (JEM)-derived	1999	Parkinson's disease	Self-reported exposure	Self-reported exposure	Case-control study	Population base	369	123	246	39	Regular and occational use of herbicides verus regular.	OR	1.02	0.63	1.65	Herbicides	Finland
Liew 2014. GenP	estimates of lifetime occupational pesticide exposure and the risk of Parkinson's disease	2014	Parkinson's disease	Job exposure matrix	Expert-level assessment	Case-control study	Population base	1107	357	750	43	High cumulative pesticide exposure versus no exposure. Exposure to	OR	1.55	0.96	2.51	Pesticides in general	USA
							Cases and controls from hospitals, residential cares, and					herbicides and pesticides (daily or weekly exposure to industrial herbicides or pesticides for a cumulative period of						
McCann 1998. GenP	The Epidemiology of Parkinson's Disease in an Australian population	1998	Parkinson's disease	Self-reported exposure	Self-reported exposure	Case-control study	community groups.	534	224	310	NA	greater than 6 months).	OR	1.2	0.8	1.5	Herbicides and pesticides	Australia
	Association of Parkinson's Disease and Its Subtypes with Agricultural Pesticide Exposures in Men: A Case-Control Study in											Highest quartile verus lowest quartile of cumulative exposure (as defined by cumulative number of						
Moisan 2015. GenP	France Occupational pesticide use and	2015	Parkinson's disease	Self-reported exposure	Self-reported exposure	Case-control study	Farmers	431	133	298	43	applications). Duration of use of pesticides. More than 10 years versus no	OR	2.31	1.09	4.9	Pesticides in general	France
Narayan 2017. GenP	Parkinson's disease in the Parkinson Environment Gene (PEG) study Pesticide exposure and risk of Parkinson's	2017	Parkinson's disease	Self-reported exposure	Self-reported exposure	Case-control study	Population base	1187	360	827	40	occupational pesticide use.	OR	1.69	1.01	2.83	Pesticides in general	USA
Rugbjer 2011. Exp. GenP	diseasea population-based case-control study evaluating the potential for recall bias Pesticide exposure and risk of Parkinson's	2011	Parkinson's disease	Expert case-by-case assessment	Expert-level assessment	Case-control study	Population base	808	403	405	37	Pesticide exposure beyond background.	OR	1.51	0.85	2.69	Pesticides in general	Canada
Rugbjer 2011. SRE. GenP	diseasea population-based case-control study evaluating the potential for recall bias	2011	Parkinson's disease	Self-reported exposure	Self-reported exposure	Case-control study	Population base	808	403	405	74	Use or exposure to pesticides.	OR	1.76	1.15	2.7	Pesticides in general	Canada
Semchuk 1992. GenP	Parkinson's disease and exposure to agricultural work and pesticide chemicals	1992	Parkinson's disease	Self-reported exposure	Self-reported exposure	Case-control study	Population base	390	130	260	NA	Pesticide use (yes versus no).	OR	2.25	1.27	3.99	Pesticides in general	Canada
Tanaka 2011. GenP	Occupational risk factors for Parkinson's disease: a case-control study in Japan	2011	Parkinson's disease	Self-reported exposure	Self-reported exposure	Case-control study	Hospital base	618	249	369	15	Pesticide exposure (yes versus no).	OR	0.75	0.37	1.46	Pesticides in general	Japan

Exposure assessment	Exposure assessment	Study San	mple Number of	Number of 6	r	1 0 111 111					
	method type Study design	population size	ze cases			osure definition Risk comparison meas	Risk re estimate	Lower CI	Upper CI	Type of pesticide Study location	
Occupation and risk of parkinsonism: a					Pesti	icide use (yes					
Tanner 2009. GenP multicenter case-control study 2009 Parkinsonism Self-reported exposure	Self-reported exposure Case-control study	Hospital base 103	30 519	511 4	44 versu	us no). OR	1.9	1.12	3.21	Pesticides in general USA/Canada	
Occupational exposure to pesticides and endotoxin and Parkinson disease in the						nest cumulative osure verus never					
Van der Mark 2014. JEM. GenP Netherlands 2014 Parkinson's disease Job exposure matrix	Expert-level assessment Case-control study	Hospital base 132	20 444	876	38 expos	osed. OR	1.56	0.86	2.83	Pesticides in general Netherlands	
Environmental determinants of Wright 2005. GenP Parkinson's disease 2005 Parkinson's disease Self-reported exposure	Self-reported exposure Case-control study	Population base 235	5 102	133		upational pesticide (yes versus no). OR	1.2	0.3	4.8	Pesticides in general USA	

JT=job title. SRE=self-reported exposure, JEM=job-exposure matrix. EXT=expert case-by-case assessment. CleM=crop-exposure matrix. Genf=general pesticide. State-tipe special desired assessment. CleM=crop-exposure matrix. Genf=general pesticide applicator. All-active ingredient. Private-private pesticide applicator. Commercial-commercial pesticide applicator. Class-class of pesticides. All-active ingredient. Afriam-Afro-American. Wewomen. M=men. NA=not available.