

Supplementary materials 1: Cohort description according to work on farm.

	Men (n= 98794)		Women (n= 83048)		
	No work on farm n (%) n= 9,378	Work on farm n (%) n= 76,933	No work on farm n (%) n= 9,520	Work on farm n (%) n= 59,512	
Mean age at enrolment (in years) (Std)	58.1 (14,0)	62.7 (15.7)	54.1 (14.3)	67.9 (14.3)	
Highest grade completed					
Less than middle school	1885 (20,7)	33774 (46.5)	1490 (15.9)	36541 (66.1)	
Middle school or high school	5017 (55,1)	32263 (44.5)	5283 (56.5)	16235 (29.4)	
More than high school	2208 (24,2)	6530 (9.0)	2580 (27.6)	2505 (4.5)	
Missing	268	4366	167	4231	
Smoking status					
Never	3037 (33,2)	34380 (46.9)	6098 (65.7)	47989 (88.4)	
Former	4490 (49,0)	29331 (40.0)	2087 (22.5)	3957 (7.3)	
Current	1627 (17,8)	9587 (13.1)	1096 (11.8)	2364 (4.3)	
Missing	224	3635	239	5202	
Pack-years of cigarette-smoking					
<20	3264 (65.7)	21673 (70.7)	2441 (89.1)	4412 (86.0)	
20-39	1257 (25.3)	6759 (22.0)	257 (9.4)	621 (12.1)	
40-59	313 (6.3)	1595 (5.2)	30 (1.1)	76 (1.5)	
≥60	132 (2.7)	630 (2.1)	12 (0.4)	20 (0.4)	
Missing	97	1216	73	277	
	Mean (Std)	17.3 (16.3)	15.4 (15.2)	8.3 (9.8)	9.2 (10.5)
Alcohol consumption					
Never	681 (7,5)	7000 (9,6)	1975 (21.4)	18386 (34.3)	
Monthly	855 (9,4)	6804 (9.3)	2480 (26.9)	12697 (23.7)	
Weekly	5003 (55,1)	34941 (47.9)	4190 (45.5)	17647 (32.9)	
Daily	2542 (28,0)	24240 (33.2)	571 (6.2)	4909 (9.1)	
Missing	297	3948	304	5873	
Body Mass Index (kg/m²)					
Underweight <18.5	45 (0,5)	380 (0.5)	305 (3.5)	1197 (2.4)	
Normal weight 18.5-24.9	3347 (38,6)	24213 (35.2)	5337 (60.7)	23028 (47.1)	
Overweight 25.0-29.9	4054 (46,7)	33435 (48.7)	2303 (26.2)	17450 (35.7)	
Obesity ≥30.0	1227 (14,3)	10713 (15.6)	850 (9.6)	7251 (14.8)	
Missing	705	8192	725	10586	
Retired					
No	6650 (70,9)	40743 (53.0)	7597 (79.8)	24057 (40.4)	
Yes	2728 (29,1)	36190 (47.0)	1923 (20.2)	35455 (59.6)	
Occupational status					
Self-employed	2696 (28,7)	51351 (66.7)	2348 (24.7)	21412 (52.8)	
Worker	6682 (71,3)	25582 (33.3)	7172 (75.3)	28100 (47.2)	

Abbreviations: Std = Standard deviation.

Supplementary materials 2: Description of people who ever worked on farm according to occupational status and pesticide use, by sex.

	Men (n= 76,933)					Women (n= 59,512)				
	Farmowners	Farmworkers	Pesticides on crops	Other pesticides	No pesticides	Farmowners	Farmworkers	Pesticides on crops	Other pesticides	No pesticides
	n (%) n= 51351	n (%) n= 25582	n (%) n= 53435	n (%) n= 5915	n (%) n= 4129	n (%) n= 31412	n (%) n= 28100	n (%) n= 10314	n (%) n= 7881	n (%) n= 11851
Mean age at enrolment (in years) (Std)	62.2 (15.1)	63.5 (16.8)	60.7 (15.7)	61.6 (16.2)	64.2 (15.7)	64.8 (13.5)	71.2 (14.4)	67.1 (15.4)	64.3 (15.1)	65.5 (15.6)
Highest grade completed										
Less than middle school	20605 (42.4)	13169 (54.9)	20908 (40.8)	2741 (48.0)	2234 (56.1)	17338 (58.8)	19203 (74.5)	6189 (63.7)	4299 (56.0)	7081 (61.2)
Middle school or high school	23588 (48.6)	8675 (36.1)	25410 (49.5)	2314 (40.6)	1319 (33.1)	10649 (36.1)	5586 (21.7)	2936 (30.2)	2897 (37.8)	3730 (32.3)
More than high school	4373 (9.0)	2157 (9.0)	4957 (9.7)	649 (11.4)	428 (10.8)	1520 (5.1)	985 (3.8)	586 (6.1)	476 (6.2)	753 (6.5)
Missing	2785	1581	2160	211	148	1905	2326	603	209	287
Smoking status										
Never	24021 (49.0)	10359 (42.7)	24647 (47.7)	2567 (44.4)	1799 (44.3)	25632 (88.3)	22357 (88.5)	8349 (85.8)	6701 (86.7)	10090 (86.2)
Former	19374 (39.5)	9937 (41.0)	20205 (39.1)	2401 (41.6)	1650 (40.6)	2359 (8.1)	1598 (6.4)	881 (9.1)	679 (8.8)	1021 (8.7)
Current	5626 (11.5)	3961 (16.3)	6794 (13.2)	808 (14.0)	612 (15.1)	1057 (3.6)	1307 (5.1)	494 (5.1)	349 (4.5)	593 (5.1)
Missing	2310	1325	1789	139	68	2364	2838	590	152	147
Pack-years of cigarette-smoking*										
<20	14123 (71.7)	7550 (68.9)	15606 (71.9)	1829 (69.5)	1248 (69.8)	2440 (87.9)	1972 (83.8)	987 (87.4)	767 (88.4)	1180 (85.6)
20-39	4252 (21.6)	2507 (22.9)	4642 (21.4)	607 (23.1)	408 (22.8)	289 (10.4)	332 (14.1)	117 (10.4)	89 (10.2)	177 (12.9)
40-59	954 (4.8)	641 (5.9)	1041 (4.8)	143 (5.5)	87 (4.9)	37 (1.3)	39 (1.7)	17 (1.5)	8 (0.9)	17 (1.2)
≥60	373 (1.9)	257 (2.3)	419 (1.9)	51 (1.9)	45 (2.5)	10 (0.4)	10 (0.4)	8 (0.7)	4 (0.5)	4 (0.3)
Missing	740	476	715	66	67	133	144	44	28	62
Mean (Std)	15.0 (15.0)	16.2 (15.6)	14.9 (15.1)	15.4 (14.6)	16.3 (15.6)	8.3 (10.2)	10.3 (10.7)	8.7 (11.2)	8.3 (10.3)	9.2 (10.0)
Alcohol consumption										
Never	4228 (8.6)	2772 (11.5)	4157 (8.1)	524 (9.1)	543 (13.6)	8873 (30.8)	9513 (30.3)	3014 (31.9)	2271 (30.1)	3698 (32.4)
Monthly	4334 (8.9)	2470 (10.2)	4437 (8.6)	578 (10.1)	429 (10.7)	7187 (25.0)	5510 (22.2)	2171 (23.0)	1926 (25.5)	2742 (24.1)
Weekly	23644 (48.4)	11297 (46.9)	25081 (48.6)	2870 (50.0)	1784 (44.6)	10082 (35.0)	7565 (30.5)	3275 (34.6)	2670 (35.3)	3884 (34.1)
Daily	16686 (34.1)	7554 (31.4)	17917 (34.7)	1766 (30.8)	1244 (31.1)	2660 (9.2)	2249 (9.0)	996 (10.5)	961 (9.1)	1075 (9.4)
Missing	2459	1489	1843	177	129	2610	3263	858	323	452
Body Mass Index (kg/m²)										
Underweight <18.5	228 (0.5)	152 (0.7)	237 (0.5)	30 (0.6)	35 (0.9)	601 (2.3)	596 (2.7)	219 (2.5)	163 (2.3)	298 (2.8)
Normal weight 18.5-24.9	16224 (35.0)	7989 (35.6)	17239 (35.2)	2024 (37.0)	1467 (38.8)	12777 (48.2)	10251 (45.7)	4085 (46.8)	3453 (48.6)	5097 (48.0)
Overweight 25.0-29.9	22740 (49.1)	10695 (47.6)	24007 (49.0)	2583 (47.2)	1750 (46.3)	9296 (35.1)	8154 (36.4)	3076 (35.3)	2497 (35.2)	3644 (34.3)
Obesity ≥30.0	7097 (15.3)	3616 (16.1)	7490 (15.3)	830 (15.2)	530 (14.0)	3838 (14.5)	3413 (15.2)	1340 (13.4)	986 (13.9)	1577 (14.9)
Missing	5062	3130	4462	448	347	4900	5686	1594	782	1235
Retired										
No	29138 (56.7)	11605 (45.4)	31579 (59.1)	3260 (55.1)	1982 (48.0)	18039 (57.4)	6018 (21.4)	4382 (42.5)	4175 (53.0)	5705 (48.1)
Yes	22213 (43.3)	13977 (54.6)	21856 (40.9)	2655 (44.9)	2147 (52.0)	13373 (42.6)	22082 (78.6)	5932 (57.5)	3706 (47.0)	6146 (51.9)
Occupational status										
Farmowners			37818 (70.8)	3506 (59.3)	2143 (51.9)			5568 (54.0)	5102 (64.7)	6226 (52.5)
Farmworkers			15617 (29.2)	2409 (40.7)	1986 (48.1)			4746 (46.0)	2779 (35.3)	5625 (47.5)

Abbreviations: Std = Standard deviation; * Among people who ever smoked cigarettes

Supplementary materials 3: Cohort follow-up in different subsamples

	N (%)	Number of person-years	Mean duration of follow-up (Std) (in years)	Mean age at enrolment (Std) (in years)
Men	98794 (54.3)	466044.5	5.0 (1.4)	62.0 (15.8)
No work on farm	9378 (9.5)	45929.3	5.1 (1.2)	58.1 (14.0)
Work on farm	76933 (77.9)	362695.6	5.0 (1.4)	62.7 (15.7)
By job title				
Farmowners	51351 (66.7)	245031.2	5.1 (1.4)	62.2 (15.1)
Farmworkers	25582 (33.3)	117664.4	4.9 (1.4)	63.5 (16.8)
By pesticide use				
Pesticides on crops	53435 (69.5)	257705.5	5.1 (1.3)	60.7 (15.7)
Other pesticides	5912 (7.7)	28165.1	5.0 (1.3)	61.6 (16.2)
No pesticides	4129 (5.4)	18823.0	4.9 (1.5)	64.2 (15.7)
Women	83048 (45.7)	402161.6	5.1 (1.2)	66.2 (15.2)
No work on farm	9520 (11.5)	48616.3	5.3 (1.0)	54.1 (14.3)
Work on farm	59512 (71.7)	286908.1	5.1 (1.3)	67.9 (14.3)
By job title				
Farmowners	31412 (52.8)	155563.3	5.2 (1.2)	64.8 (13.5)
Farmworkers	28100 (47.2)	131344.8	5.0 (1.3)	71.2 (14.4)
By pesticide use				
Pesticides on crops	10314 (17.3)	49676.0	5.1 (1.3)	67.1 (15.4)
Other pesticides	7881 (13.2)	38483.0	5.1 (1.2)	64.3 (15.1)
No pesticides	11851 (19.9)	57085.8	5.1 (1.3)	65.5 (15.6)

Abbreviations: Std = Standard deviation.

Supplementary materials 4: Standardized incidence ratio (SIR) after censoring cancer cases at the first date of diagnosis and excluding all prevalent cancer cases

	Men						Women					
	All		Farmowners		Farmworkers		All		Farmowners		Farmworkers	
	N obs	SIR [95% CI]	N obs	SIR [95% CI]	N obs	SIR [95% CI]	N obs	SIR [95% CI]	N obs	SIR [95% CI]	N obs	SIR [95% CI]
All	6370	0.87 [0.85-0.89]	3158	0.82 [0.79-0.85]	1854	0.94 [0.90-0.99]	3396	0.89 [0.86-0.92]	1232	0.85 [0.80-0.90]	1197	0.85 [0.81-0.90]
<u>Upper aerodigestive tract and respiratory cancers:</u>												
Oral cavity and pharynx	162	0.57 [0.49-0.67]	70	0.45 [0.35-0.57]	50	0.74 [0.55-0.98]	27	0.47 [0.31-0.68]	8	0.35 [0.15-0.69]	9	0.47 [0.21-0.89]
Larynx	53	0.54 [0.40-0.71]	17	0.32 [0.19-0.52]	16	0.64 [0.37-1.04]	7	0.84 [0.34-1.74]	3	0.88 [0.18-2.56]	4	1.49 [0.40-3.82]
Trachea, bronchus and lung	511	0.54 [0.50-0.59]	236	0.48 [0.42-0.54]	146	0.58 [0.49-0.69]	130	0.62 [0.51-0.73]	40	0.50 [0.36-0.68]	44	0.58 [0.42-0.77]
Squamous cell	163	0.57 [0.48-0.66]	83	0.55 [0.44-0.68]	40	0.52 [0.37-0.71]	14	0.48 [0.26-0.81]	5	0.45 [0.15-1.05]	2	0.19 [0.02-0.68]
Adenocarcinoma	157	0.50 [0.42-0.58]	70	0.42 [0.33-0.53]	46	0.56 [0.41-0.75]	84	0.77 [0.62-0.96]	27	0.65 [0.43-0.94]	27	0.70 [0.46-1.02]
Mesothelioma	15	0.37 [0.21-0.61]	9	0.42 [0.19-0.80]	4	0.36 [0.10-0.92]	6	0.69 [0.25-1.49]	3	0.89 [0.18-2.61]	2	0.61 [0.07-2.20]
<u>Digestive organs:</u>												
Oesophagus	123	0.73 [0.61-0.87]	61	0.67 [0.52-0.87]	33	0.76 [0.52-1.07]	22	0.73 [0.45-1.10]	6	0.54 [0.20-1.19]	10	0.84 [0.40-1.55]
Stomach	193	0.93 [0.80-1.07]	88	0.79 [0.64-0.98]	62	1.08 [0.83-1.39]	92	1.05 [0.85-1.29]	33	1.04 [0.72-1.46]	42	1.19 [0.86-1.61]
Colon	508	0.83 [0.76-0.90]	226	0.71 [0.62-0.81]	152	0.87 [0.74-1.02]	371	0.90 [0.81-0.99]	135	0.95 [0.80-1.12]	144	0.83 [0.70-0.98]
Rectum	348	0.99 [0.89-1.10]	185	0.99 [0.86-1.15]	90	0.94 [0.76-1.16]	147	0.83 [0.70-0.97]	50	0.77 [0.57-1.02]	61	0.87 [0.67-1.12]
Liver and intrahepatic bile ducts	220	0.79 [0.69-0.90]	112	0.76 [0.63-0.92]	52	0.68 [0.51-0.89]	35	0.63 [0.44-0.88]	10	0.53 [0.25-0.98]	15	0.64 [0.36-1.06]
Pancreas	144	0.75 [0.63-0.89]	83	0.83 [0.66-1.03]	38	0.72 [0.51-0.98]	140	0.91 [0.77-1.07]	35	0.67 [0.47-0.93]	72	1.11 [0.87-1.40]
Anus	5	0.44 [0.14-1.04]	2	0.35 [0.04-1.25]	2	0.64 [0.07-2.31]	13	0.55 [0.29-0.95]	6	0.66 [0.24-1.43]	2	0.24 [0.03-0.87]
<u>Reproductive and endocrine system cancers:</u>												
Breast	16	0.94 [0.53-1.52]	9	1.01 [0.46-1.91]	6	1.29 [0.47-2.80]	1011	0.87 [0.82-0.92]	402	0.86 [0.78-0.95]	294	0.77 [0.68-0.86]
Cervix uteri							36	0.71 [0.50-0.99]	11	0.57 [0.28-1.02]	12	0.72 [0.37-1.25]
Corpus uteri							182	0.95 [0.82-1.10]	64	0.86 [0.66-1.09]	68	0.99 [0.77-1.25]
Ovary							129	1.02 [0.85-1.21]	49	0.95 [0.70-1.26]	43	0.98 [0.71-1.32]
Prostate	2393	1.07 [1.03-1.12]	1207	1.02 [0.96-1.08]	717	1.21 [1.12-1.30]						
Testis	16	0.80 [0.46-1.30]	6	0.61 [0.22-1.33]	4	0.80 [0.22-2.06]						
Thyroid	34	0.75 [0.52-1.05]	15	0.63 [0.35-1.04]	7	0.61 [0.24-1.26]	90	0.99 [0.80-1.22]	41	1.12 [0.80-1.51]	18	0.70 [0.41-1.10]
<u>Lip and cutaneous cancers:</u>												
Lip	26	1.56 [1.02-2.29]	12	1.30 [0.67-2.27]	14	3.18 [1.73-5.33]	4	0.83 [0.22-2.11]	1	0.63 [0.01-2.50]	0	-
Skin melanoma	151	0.93 [0.79-1.09]	61	0.72 [0.55-0.93]	56	1.29 [0.98-1.68]	158	1.23 [1.05-1.44]	58	1.16 [0.88-1.50]	57	1.29 [0.98-1.68]
<u>Other solid tumours:</u>												
Central nervous system	82	1.03 [0.82-1.28]	53	1.25 [0.94-1.64]	20	0.96 [0.59-1.48]	44	0.88 [0.64-1.19]	14	0.75 [0.41-1.26]	19	1.02 [0.62-1.60]
Gliomas	76	1.06 [0.83-1.32]	47	1.23 [0.90-1.64]	20	1.07 [0.66-1.66]	38	0.90 [0.64-1.23]	12	0.72 [0.37-1.26]	15	1.01 [0.56-1.66]
Glioblastomas	53	1.11 [0.83-1.45]	34	1.33 [0.92-1.86]	12	0.97 [0.50-1.69]	23	0.84 [0.54-1.27]	8	0.73 [0.31-1.43]	9	0.96 [0.44-1.82]
Bladder	223	0.63 [0.55-0.72]	109	0.59 [0.49-0.72]	62	0.61 [0.47-0.78]	51	0.74 [0.55-0.97]	23	0.99 [0.62-1.48]	14	0.47 [0.26-0.79]
Kidney	249	0.93 [0.82-1.06]	128	0.91 [0.76-1.09]	66	0.91 [0.71-1.16]	107	0.97 [0.80-1.18]	42	1.00 [0.72-1.35]	36	0.88 [0.61-1.21]
<u>Haematological malignancies:</u>												
Hodgkin Lymphoma	22	1.30 [0.81-1.97]	9	1.04 [0.48-1.98]	8	1.75 [0.75-3.44]	9	1.06 [0.48-2.01]	4	1.28 [0.34-3.27]	1	0.35 [0.00-1.94]
Non Hodgkin Lymphoma	552	1.08 [0.99-1.17]	291	1.09 [0.97-1.22]	147	1.02 [0.86-1.20]	339	1.05 [0.95-1.17]	103	0.90 [0.74-1.09]	142	1.09 [0.92-1.29]
Chronic lymphocytic leukaemia/lymphocytic lymphoma	134	1.12 [0.93-1.32]	72	1.15 [0.90-1.45]	37	1.10 [0.77-1.51]	66	1.01 [0.78-1.28]	22	0.93 [0.58-1.41]	28	1.06 [0.71-1.54]
Follicular lymphoma	29	0.76 [0.51-1.09]	17	0.84 [0.49-1.34]	5	0.50 [0.16-1.17]	31	1.03 [0.70-1.47]	12	0.98 [0.51-1.72]	12	1.18 [0.61-2.07]
Malignant lymphoma, large B-cell, diffuse	98	1.09 [0.89-1.33]	48	1.03 [0.76-1.36]	29	1.15 [0.77-1.65]	62	0.93 [0.72-1.20]	15	0.66 [0.37-1.08]	24	0.87 [0.56-1.29]
Mantle cell lymphoma	15	0.79 [0.44-1.30]	5	0.51 [0.16-1.19]	3	0.56 [0.11-1.63]	7	1.21 [0.48-2.49]	2	0.88 [0.10-3.17]	4	1.86 [0.50-4.77]
Marginal zone lymphoma	31	1.03 [0.70-1.47]	13	0.85 [0.45-1.45]	12	1.39 [0.72-2.43]	25	1.11 [0.72-1.64]	7	0.86 [0.34-1.77]	14	1.58 [0.86-2.65]
Multiple myeloma and plasmocytoma	136	1.38 [1.16-1.64]	81	1.60 [1.27-1.99]	30	1.07 [0.72-1.52]	91	1.29 [1.04-1.59]	32	1.31 [0.89-1.85]	38	1.30 [0.92-1.79]
Lymphoplasmacytic lymphoma/Waldenström	35	0.86 [0.60-1.19]	25	1.16 [0.75-1.71]	8	0.70 [0.30-1.38]	22	1.18 [0.74-1.78]	6	0.96 [0.35-2.09]	9	1.12 [0.51-2.12]
NK/T-cell lymphoma	37	1.23 [0.87-1.69]	13	0.84 [0.45-1.43]	12	1.44 [0.74-2.51]	19	1.20 [0.72-1.88]	5	0.85 [0.27-1.99]	5	0.83 [0.27-1.94]
Mycosis fungoides	10	1.03 [0.49-1.89]	3	0.62 [0.12-1.80]	4	1.44 [0.39-3.69]	1	0.28 [0.00-0.53]	0	-	0	-
Non Hodgkin Lymphoma NOS	21	0.73 [0.45-1.12]	9	0.61 [0.28-1.15]	7	0.83 [0.33-1.72]	13	0.67 [0.36-1.15]	1	0.17 [0.00-0.94]	7	0.78 [0.31-1.60]
Acute myeloid leukaemia	50	0.90 [0.67-1.19]	23	0.81 [0.51-1.22]	16	1.00 [0.57-1.62]	33	0.94 [0.65-1.32]	6	0.48 [0.18-1.05]	15	1.07 [0.60-1.77]
Chronic myeloproliferative disorders	61	0.83 [0.64-1.07]	26	0.68 [0.45-1.00]	25	1.23 [0.79-1.81]	56	1.13 [0.86-1.47]	25	1.37 [0.89-2.03]	13	0.68 [0.36-1.17]
Myelodysplastic syndrome	91	0.81 [0.66-1.00]	53	0.92 [0.69-1.20]	21	0.63 [0.39-0.97]	82	1.23 [0.98-1.53]	36	1.52 [1.06-2.10]	30	1.09 [0.73-1.55]
Cutaneous lymphoma	23	1.07 [0.68-1.61]	10	0.90 [0.43-1.66]	7	1.18 [0.47-2.42]	11	0.89 [0.44-1.58]	1	0.23 [0.00-1.28]	4	0.80 [0.22-2.06]