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**CROP EXPOSURES AND CHRONIC BRONCHITIS AMONG FARMERS IN THE AGRICULTURE AND CANCER COHORT**

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**Objectives** Livestock farming is a well-known risk factor for chronic bronchitis (CB) but crop farming as a risk factor has been much less studied.

**Methods** The Agriculture and Cancer cohort included ≈184 000 farmers from 11 geographical areas, covering all types of farming in France. A random sample (n=18 395) was used for this cross-sectional analysis. Adjusted associations between agricultural exposures and self-reported history of doctor-diagnosed CB after age 20 were assessed using logistic regression.

**Results** At enrolment (2005-07), 9% reported CB. After adjustment for gender, age, geographical area, smoking, educational level, BMI, history of asthma and atopy, and livestock productions (beef cattle, poultry, swine), two crop farming emerged as risk factors for CB: sunflower (OR 1.5 (1.1–2.0)) and potato (OR 1.4 (1.2–1.7)) productions. An increased risk of CB was observed in the largest potato growers (≥20 hectares vs non-exposed: OR 2.8 (1.7–4.5)). History of pesticide poisoning was also associated with CB (OR 1.7 (1.1–2.6)). Among potato growers, use of pesticides on this crop was associated with a borderline significant increased risk of CB (OR 1.5 (1.0–2.3)).

**Conclusions** Besides excess risk associated with livestock and sunflower productions, a significant increased risk of CB was observed among the largest potato growers in France. These findings suggest deleterious farming exposures, such as the use of pesticides, in their occupational environment. Since these large potato growers were usually involved in other large crop productions (wheat/barley, peas), the effect of tasks non-specifically related to potato could not be excluded (large use of pesticides on all crops).