

# European Respiratory Society Annual Congress 2013

**Abstract Number:** 1869

**Publication Number:** P1557

**Abstract Group:** 6.1. Epidemiology

**Keyword 1:** Environment **Keyword 2:** Epidemiology **Keyword 3:** Longitudinal study

**Title:** Agricultural exposure and asthma in the AGRICAN French cohort

Dr. Isabelle 11319 Baldi Isabelle.Baldi@isped.u-bordeaux2.fr MD <sup>1</sup>, Ms. Celine 11320 Robert celinefp.robert@gmail.com <sup>1</sup>, Ms. Florence 11321 Piantoni florence.piantoni@etud.u-bordeaux2.fr <sup>1</sup>, Ms. Severine 11322 Tual s.tual@baclesse.f <sup>2</sup>, Mrs. Ghislaine 11323 Bouvier Ghislaine.Bouvier@isped.u-bordeaux2.fr <sup>1</sup>, Mr. Pierre 11324 Lebailly p.lebailly@baclesse.fr <sup>2</sup> and Prof. Dr Chantal 11325 Raheison chantal.raheison@isped.u-bordeaux2.fr MD <sup>1</sup>. <sup>1</sup> Centre INSERM U987, University Bordeaux Segalen, Bordeaux, France and <sup>2</sup> UMR 1086-Cancers Et Préventions, INSERM, Caen, France .

**Body:** Epidemiological studies have reported an increased risk of respiratory diseases in agricultural population, in another hand, a protective “farm-effect” has been reported for asthma in others studies. In a 10% sample of the AGRICAN cohort, self-reported doctor-diagnosed asthma was analyzed according to atopy and in relation with detailed information on farming (history of life-time exposure to 13 crops and 5 livestock), pesticide use and poisoning, and with living on a farm in first year of life. Analyses were adjusted on sex, age, educational level and body mass index (for non-atopic asthma). 1 246 asthmatics were identified in the sample (8.0%), with atopy in 505 subjects (3.3%) and without in 719 (4.6%). In multivariate analysis, atopic asthma was associated with exposure to vineyards (OR=1.43, p=0.002), fruit (OR=1.58, p=0.001), greenhouses (OR=1.66, p=0.02), grasslands (OR=1.35, p=0.009) and beets (OR=1.52, p=0.003). Pesticide use and history of pesticide poisoning were significantly associated with atopic asthma in grassland, vineyards and fruit-growing. Living on a farm in first year of life seems to be protective for childhood atopic asthma in farms with livestock (OR=0.72, p=0.07) but deleterious in farms with vineyards, fruit or vegetables (OR=1.44, p=0.07). In the AGRICAN cohort, farm exposure, including crop exposure, pesticide use and early life on a farm, were associated with atopic asthma especially in wine-growing, grassland, fruit and vegetable growing.