

**COST Action TD 1206 “StanDerm”  
Seminar on**



**“Etiology and prevention of occupational contact dermatitis: New challenges”  
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**ABSTRACT**

**Title:** Risk factors for work-related dermatitis among vocational trainees in agriculture

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**Introduction:** Farmers are at high risk of occupational skin diseases which may start already during vocational training.

**Objective:** To identify risk factors for work-related dermatitis among vocational students in agriculture.

**Materials and methods:** The study involved 440 students (245 men, 195 women aged 17-21 years) in 11 vocational schools distanced from each another by at least 100 km. The protocol included physician-managed questionnaire and medical examination, skin prick tests, patch tests, total IgE and Phadiatop. Logistic regression model was used for the identification of relevant risk factors.

**Results:** Work-related dermatitis was diagnosed in 22 study participants (5.0%, 95%CI: 3.0-7.0%), in 7 it co-existed with contact urticaria. Significant risk factors for work-related dermatitis were: history of respiratory allergy (OR=10.01,  $p<0.001$ ), history of eczema (itchy rash) provoked by wet work and detergents (OR=5.85,  $p<0.001$ ), as well as contact to metals, rubber or cosmetics (OR=2.84,  $p=0.016$ ), and family history of any skin disease (OR=2.99,  $p=0.013$ ). Allergy tests did not prove as reliable predictors.

**Conclusions:** Work-related dermatitis is common among vocational students in agriculture. Atopy, past history of asthma, allergic rhinitis, and eczema (either atopic, allergic or irritant) are relevant risk factors for work-related dermatitis in young farmers, along with family history of any skin disease. Asking simple, aimed questions during health checks before enrolling into vocational training would suffice to identify persons at risk, giving them the chance for selecting a safer profession and hopefully avoiding a future occupational dermatosis.

**Keywords** occupational dermatitis, agriculture, vocational training, prevalence, risk factors.