

CAUSES OF OCCUPATIONAL ALLERGIC CONTACT DERMATITIS AMONG FARMERS



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BACKGROUND

Little is known about occupational contact dermatitis among farmers. Therefore, this study was undertaken aimed at identifying causes of invalidating occupational allergic contact dermatitis (ACD) among Polish farmers.

MATERIAL

Compensation records of all cases compensated by the Agricultural Social Insurance Institution from 1991 to 1999.

METHODS

Collecting data on causative factors responsible for occupational ACD.

RESULTS

87 cases of invalidating occupational ACD from 1991 - 1999
52 women and 32 men, aged 36 - 71 years
Median impairment due to the skin disease: 20% (range 5 - 36%)



Table 1. Animal and plant allergens causing occupational ACD among Polish farmers

Causative agents	%
Dusts	38%
Hay dust	26%
Straw dust	25%
Grain dust	16%
Threshing dust	7%
Farm animals' allergens	36%
Cow dander or epithelium	27%
Goose feathers	5%
Duck feathers	4%
Horse dander or epithelium	3%
Sheep wool or epithelium	3%
Chicken feathers	3%
Pig dander or epithelium	2%
Cow milk (as contact allergen)	2%
Unspecified animal allergens	12%
Plants	6%
Tomato leaves	4%
Chrysanthemum leaves	2%
Storage mites	5%
<i>Acarus siro</i>	3%
<i>Lepidoglyphus destructor</i>	3%
<i>Tyrophagus putrescentiae</i>	3%
Flours	3%
Wheat flour	2%
Rye flour	2%
Other agents	
Fodder	4%
Molds	3%
Bran	2%
Propolis	2%



Table 2. Chemical substances causing occupational ACD among Polish farmers

Causative agents	%
Metals	29%
Chromium	19%
Cobalt	13%
Nickel	13%
Mercury	3%
Pesticides	18%
Malathion	7%
Captan	5%
Dicamba	5%
2,4-dichlorophenoxyacetic acid	4%
2-methyl-4-chlorophenoxyacetic acid	4%
Fenitrothion	3%
Chlorfenvinphos	2%
Cypermethrin	2%
Dichlorvos	2%
Thiometon	2%
Carbendazim	2%
Lindan	2%
Unspecified	4%
Rubber additives	15%
Thiuram	7%
Mercaptobenzothiazol	5%
N-isopropyl-N'-phenyl-p-phenylenediamine	4%
Unspecified	2%
Fertilizers	5%
Ammonium nitrate	3%
Unspecified	2%
Disinfectants	2%
Other agents	
Ammonia	3%
Colophony	2%

CONCLUSIONS

Plant dusts and animal allergens are most frequent causes of occupational ACD in Polish farmers. Another important allergens are metals, pesticides and rubber chemicals.

More information at:

www.RadoslawSpiewak.net
more data, more reprints, more science

Reference: Spiewak R: Occupational dermatoses among Polish private farmers, 1991-1999. Am J Ind Med 2003; 43(6): 647-655 (reprint at <http://www.RadoslawSpiewak.net/2003-1.pdf>).

XXIII EAACI Congress
12-16 June 2004
Amsterdam