Perceived harmful factors in agricultural work environments in Finland

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1. Introduction

During recent decades, agriculture has undergone rapid restructuring in Finland. Field areas and sizes of herds per farm have increased, while the number of farms has decreased. There were 52775 agricultural and horticultural enterprises in Finland in 2014. Their average utilized agricultural area was 43 hectares. Most (87%) Finnish farms are family farms. The average age of farmers on privately-owned farms was 50.6 years. Two thirds of the farms (65%) were crop farms and one third (31%) livestock farms. Grain growing was the most popular production line, chosen by 36% of farms. Fifteen per cent were dairy farms. (Tike, Structure of agricultural and horticultural enterprises 2014). The aim of this study is to determine how perceived harmful factors in the agricultural work environment have changed during the last ten years in Finland.

2. Method

The study population comprised two different samples of farmers. The Farming and occupational health in Finland 2004 (MTH2004) study consisted of 1129 full-time farmers, and the Farming and occupational health in Finland 2014 (MTH2014) study consisted of 2169 full-time farmers. The data from 2004 was a random sample from the Agricultural and Horticultural Enterprise Register 2004. The data from 2014 was weighted to be equivalent to the actual distribution of the production sector in Finland in 2014 (Farm Register 2014).

The data were collected through computer-assisted telephone interviews (CATI). The structure of the interviews was planned by a group of experts at the Finnish Institute of Occupational Health, and included questions on farms and farmers, work environment and working conditions, health and work ability, accidents, management, mental well-being, and occupational health services.

Perceived harm in the work environment was elicited with eight questions: “How much do: awkward working postures / heavy lifting or carrying / noise / vibration / inadequate lighting or glare / fumes or air of the production building / dust / toxic or irritant substances bother you?” The response options were: not at all/ a little/ quite much/ or very much.

3. Results

Perceived awkward working postures, heavy lifting/carrying and dust were the most prevalent harmful factors (quite or very harmful) in 2004 and 2014. In 2014, every fifth farmer considered awkward working postures (21%), heavy lifting/carrying (21%) and dust (19%) as quite or very harmful. In crop farms, harmful awkward working postures, heavy lifting and carrying, noise, vibration, fumes and air of the production building, and toxic or irritant substances decreased between 2004 and 2014. In livestock farms, harmful noise, dust, fumes and air of the production building, and toxic or irritant substances decreased between 1994 and 2014.

4. Discussion

Six out of eight perceived harmful factors in the work environment decreased between 2004 and 2014 in crop farms. In livestock farms, the corresponding ratio was four out of eight. Moreover, perceived harmful (quite or very harmful) awkward working postures increased from 21% to 23% and harmful heavy lifting/carrying increased from 21% to 23% among livestock farmers. Despite mechanization and automation, work at livestock farms continues to be physically demanding. Larger farms, larger herd sizes, the increased average age of farmers, and better awareness of harmful factors may partly explain these results.

References