

Health and safety strategy in Swedish agriculture

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Abstract. In Sweden there is a joint focus on injury prevention in agriculture and this is coordinated through the Swedish Committee on Working Environment (LAMK). LAMK is a network working for a good, healthy and safe working environment in Swedish agriculture from the view of the enterprise with the humans in focus. It is a committee consisting of representatives of authorities, institutions, companies, research & education institutions and organisations referring to the green sector. Examples of on-going initiatives & partners are presented which are included in this mission against injuries in agriculture. It involves the Swedish Work Environment Authority, the Federation of Swedish Farmers (LRF), the Swedish Institute of Agricultural and Environmental Engineering, Swedish University of Agricultural Sciences (SLU), the Federation of Swedish Forestry and Agricultural Employers (SLA) and the Swedish Municipal Worker's Union.

Keywords: injury, prevention, collaboration, national program, stakeholders, agriculture, Sweden

1. Introduction

Agriculture consistently ranks as one of the highest injury risk industry sectors. Death rates for agriculture in North America as well as the 15 countries of the European Union are consistently several times higher than the average rate for all industries combined. For this reason, agriculture is often described as one of the most hazardous industries in which to work [5]. According to Bulat et al [1], about 170 000 agriculture workers die every year as a consequence of occupational injuries, the majority of them in the developing countries. The European Commission [8] has concluded that agriculture is among the three most dangerous sectors. Another study compared the injury rates in the United States, Australia and New Zealand [3]. Among the findings it was pointed out that in each country, male workers, older workers, and those working in agriculture, forestry and fishing, in mining and in construction, were consistently at higher risk.

The number of reported accidents in agriculture in Sweden is 2-3 times higher than, for example, in the

construction industry or in the transport sector which are the sectors following agriculture regarding the number of accidents, relatively speaking [11]. A total of 1 017 occupational accidents (of which 20 were fatal) were reported in the industries of agriculture, hunting, forestry and fishing in the year of 1996. The corresponding numbers for 2006 were 444 and 10, respectively [12]. Taking the number of employed into account there was a decrease in the trend of accidents causing injuries as well as fatal accidents during the same time period. The decrease is more pronounced for the agriculture sector compared with all occupations in Sweden. However, fatal accidents in agriculture are still today at a very high level; 12.8 accidents per 100 000 employed, compared with 1.6 for all occupations taken together in Sweden.

It is important to compile information about work injuries for identifying problems in the work environment and assisting in the preventive work with occupational health and safety issues. The information puts a perspective on problems in the work environment and possibilities to evaluate their importance. By comparing the frequency and extent of injuries

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caused by different work environment problems it is possible to gauge which are the most and which the least serious of the problems [10].

Farmers, like other self-employed, shall in the same way as employees, report occupational accidents and diseases to the Social Insurance Agency. Such a report is also necessary for the Official Statistics on occupational accidents and work-related diseases for different occupations and branches to be correct and thus used as a base for different forms of preventive measures. It is well known that the self-employed do not have the same propensity as employees to report accidents and injuries. This has clearly been shown by Jansson [6] and confirmed by others [2, 14]. There are several reasons for this.

The self-employed often have longer waiting periods of days during which time they will not get any sickness benefit. Often they do not have the possibility to report themselves sick. Despite illness and injuries they still have to take care of their business etc. In the light of these circumstances a survey of 20 000 farmers and forestry workers was performed of accidents that had occurred in Swedish farming and forestry in 1987 [4]. The study showed that the real number of accidents was about double the number of those reported.

The Swedish University of Agricultural Sciences in cooperation with Statistics Sweden carried out a comprehensive survey of injuries in Swedish agriculture during 2004. The result shows that about 5000 injuries occurred on agricultural farms that resulted in bodily injuries and hindered the work on the farm.. According to the official statistics there were only about 400 registered injuries. This means that only 8% of the occurred injuries found in this study are registered in the official statistics of occupational injuries [9].

During a Nordic Meeting on Occupational Health and Safety in Finland it was concluded that the situation was much the same in the Nordic countries and the Kuopio declaration was drawn up [7]. This declaration stated the following:

- By the year 2012 – there should be no fatal injuries in Nordic agriculture
- National action plans are to be developed to prevent injuries in agriculture involving all relevant stakeholders in the agricultural sector
- Establish and enhance national resource, information and coordination centres for agricultural health and safety

In order to change this negative situation for Swedish agriculture a number of measures have been taken in Sweden. The Swedish strategy involves important factors, such as:

1. Collaboration between involved stakeholders of health and safety in agriculture
2. A national program on injury prevention
3. Coordination of actions is essential
4. Knowledge, attitude and behaviour in focus

This strategy is coordinated by the Swedish Committee on Working Environment in Agriculture (LAMK).

2. The Swedish Committee on Working Environment in Agriculture (LAMK)

In Sweden there is a joint focus on injury prevention in agriculture and this is coordinated through the Swedish Committee on Working Environment in Agriculture (LAMK) [12].

LAMK is a network working for a good, healthy and safe working environment in Swedish agriculture from the perspective of the enterprise with the humans in focus. It is a committee consisting of representatives of authorities, institutions, companies, research and education institutions and organizations referring to the green sector, with a focus on agriculture, such as: the Swedish Work Environment Authority, the Federation of Swedish Farmers, the Federation of Swedish Forestry and Agriculture Employers, the Swedish Municipal Workers' Union (the farm workers union), the Swedish Institute of Agricultural and Environmental Engineering and the Swedish University of Agricultural Sciences.

This network organizes a national conference each year and will organize the Nordic Meeting on Agricultural Health and Safety 2012 in Sweden. LAMK awards prizes to the "safe farmer of the year" and "the best product which improves the working conditions /safety on farms". Another important activity is to set the theme of the year for the health and safety work in Swedish agriculture. For 2011 it was "safe handling of animals" and in 2012 it is "safe operation of machinery". This is reflected in a number of national activities and events, such as conferences, media campaigns, education and information initiatives.

The most important mission for LAMK is to be the coordinator for the national strategy for health and safety in the agricultural sector. Most of the safety

work is then done by the different stakeholders as described in the following.

3. The Federation of Swedish Farmers (LRF)

The Federation of Swedish Farmers (LRF) with the support of Swedish Institute of Agricultural and Environmental Engineering (JTI) and Swedish University of Agricultural Sciences (SLU) is running a large project called "Safe Farmers Common Sense" (Säkert Bondförförnuft), with the support of the European Commission (EU) during 2009-2013 with the aim to reduce the number of injuries in agriculture by 50%.

This program involved a development phase in order to find the right concept, influenced by Farm Safe New Zealand and others. The main concept of the program was then directed towards changing farmers' attitudes and to motivate them to behave in a safe manner. This is carried out through a system of educated supervisors meeting with farmers: a) on farm walks or at farmers' meetings in order to present the problem and the accident prevention possibilities b) by inviting the farmers to take part in a three-step course in order to learn about risks and how to draw up safety plans for their own farms in collaboration with other farmers, or c) have a supervisor visit the individual farm to discuss safety and to get started with safety action plans. The supervisors (> 180) were in most cases part-time farmers, educated by the Swedish University of Agricultural Sciences.

An on-going evaluation is showing very promising results in the preliminary report from the researchers – a very high percentage of participating farmers are satisfied with the program and have started to make safety improvements on their farms.

4. The Swedish Work Environment Authority

The Swedish Work Environment Authority is the administrative authority for issues relating to the working environment.

They are running a national inspection program "Animals and agriculture" which started in 2009 and will finish in 2012. The decision to do this was based on the fact that the sector "agriculture" had reported 43 fatal injuries during 2000-2006 which is way too many in relation to the number of people working in this sector. This 3-year program involves a large

number of visits to farms. The inspections on the farms will focus on:

- Technical devices and machinery in agriculture
- Animal production
- Handling of dangerous substances
- Systematic Work Environment Management, towards risk evaluations

The program is also divided into different types of activities, such as: inspections, information and media activities, as well as supervision.

Material has been produced to support the inspections during years 1-3, including folders on how to create a safe farm environment plus other material on the new provision "Working with animals".

It is expected that this program will reach about 5 % of all registered agricultural operations (farms), which means that about 3500 visits will be performed during this 3-year period. The program is going to be evaluated by scientists.

5. The Federation of Swedish Forestry and Agriculture Employers (SLA)

The Federation of Swedish Forestry and Agriculture Employers (SLA) is running a small-scale service program on health and safety supervision for their members (mainly larger farms with employees). This service is a 2-hour on-farm safety advice visit without charge and provided by farm safety engineers (with an option to pay for extended service).

This free on-farm safety advice service is one way of improving the safety standard among farmers. Motivating farmers is still a key issue, but the experience of an injury or the presence of children on the farm changes the impression of resistance according to a recent evaluation of the first period of this program 2007-09 [1].

6. The Swedish Municipal Workers' Union (Kommunal – the farm workers' union)

The Swedish Municipal Workers have a system involving regional safety representatives. They supply advice and services to their members on farms as well as their employers in order to support the use of Systematic Work Environment Management (SAM)

which is to improve the working conditions and to reduce the number of injuries.

7. Research and evaluation

These are examples of major partners working with the same goal to improve the working conditions and to minimize the number of injuries on Swedish farms. The Swedish Institute of Agricultural and Environmental Engineering (JTI) and the Swedish University of Agricultural Sciences (SLU) are involved in this work through research projects, education and evaluation of the efforts within this joint focus on injury prevention in agriculture.

References

- [1] Alwall, C & Lundqvist, P. (2010): Evaluation of Small-scale Farm Safety Extension Service. 2010 Summer Conference of NIFS. Wilmington, NC. June 26 – July 1, 2010. Paper No 10-05. National Institute for Farm Safety, Urbana, IL.
- [2] Bulat P, Somaruga C, Colosio C. (2006): Occupational health and safety in agriculture: situation and priorities at the beginning of the third millennium. *Med Lav.* 97(2):420-9.
- [3] Donham, K.J. & Thelin, A. (2006): *Agricultural Medicine. Occupational and Environmental Health for the Health Professions.* Blackwell, Publishing, Ames, Iowa
- [4] Feyer AM, Williamson AM, Stout N, Driscoll T, Usher H, Langley JD. (2001): Comparison of work related fatal injuries in the United States, Australia, and New Zealand: method and overall findings. *Inj Prev.* 7(1):22-8.
- [5] Hansson, R., Broberg, E., Johansson, A., Jorner, U., Selander, R., Karlberg-Nilsson, B. (1989): Study of accidents in farming and forestry in 1987. The Swedish Farmers Safety and Preventive Health Association, The Swedish Board of Occupational Safety and Health, The Central Bureau of Statistics. Report nr 28/89. Stockholm, Sweden (In Swedish with English summary).
- [6] ILO, (1999): Safety and health in agriculture. Report VI (1). International Labour Conference, 88th Session 2000. International Labour Office. Geneva.
- [7] Jansson, B. (1988): A system for injury surveillance in Swedish emergency care as a basis of injury control. Studies on epidemiology in agriculture. Karolinska institute. Department of social medicine. Thesis. Sundbyberg.
- [8] NMAOH, (2006): The Kuopio declaration against fatal injuries in agriculture. Adopted by the Nordic Meeting on Agricultural Occupational Health (NMAOH), Kuopio, Finland, August 21-23, 2006.
- [9] Paoli, P. (1992). First European Surveys on the Work Environment 1991-1992. European Foundation for the Improvement of Living and Working Conditions, Report, Dublin.
- [10] Pinzke, S. & Lundqvist, P. (2007) Occupational accidents in Swedish agriculture, *Agricultural Engineering Research* 13, 159-165.
- [11] Statistics Sweden, (2003): Occupational Diseases and Occupational Accidents 2001. Swedish Work Environment Authority and Statistics Sweden. Publication Services, Örebro, Sweden
- [12] Swedish Board of Agriculture, (2007): Prevention of injuries in agriculture. Report 2007:8. (In Swedish).
- [13] Swedish Work Environment Authority, (2006): Occupational accidents and work-related diseases 2004. Official Statistics of Sweden, Swedish Work Environment Authority, Publication Services, Solna, Sweden (In Swedish with English summary).
- [14] Swedish Committee on Working Environment in Agriculture. (2011) Lantbrukets arbetsmiljökommitté, LAMK, <http://lantbruketsarbetsmiljo.slu.se/gen/default.aspx>
- [15] Takala, J. (1999): Global estimates of fatal occupational accidents. *Epidemiology* 10(5):640-646.