



Innovative approaches to managing safety culture in agriculture

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Sacurima COST Action - Background

Towards better safety culture in agriculture



Photo: David Preston



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Sacurima COST Action - Background

Agriculture has one of the worst fatal accident records of any major employment sector

- Over 550 fatal accidents in farming across the EU each year
 - **fatal accident rate**, for the EU 15 in 2000, was 12.6 per 100 000 workers
 - **Rate for accidents with more than 3 days absence** is over 6000 per 100 000 workers
- UK: agriculture accounts for 1.5% of the workforce, but is responsible for 15-20% of workplace fatalities
- Ireland: agriculture accounts for 5% of the workforce but experiences up to 50% of all reported workplace fatalities

8 times more likely to die working on a farm in Ireland than in the general working population



Sources: Health & Safety Executive 2013; OSHA

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Building the evidence base for effective farm safety programmes



1. Identify behavioural risk factors
2. Analyse the determinants of unsafe or unhealthy behaviour
3. Develop and test interventions to influence health related behavior
4. Investigate conditions for successful implementation and sustainability

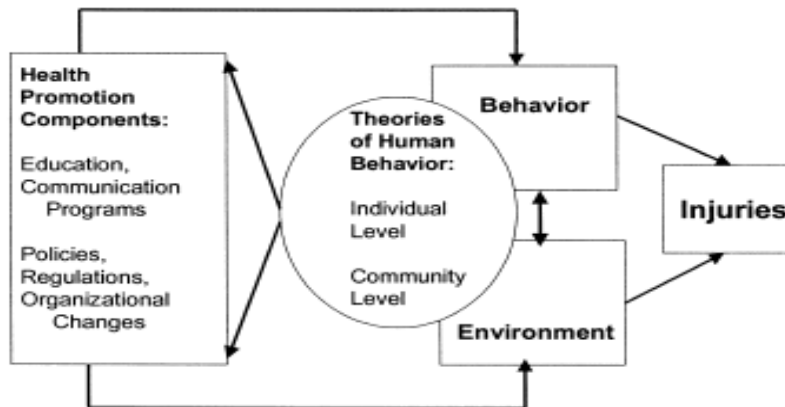
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Analysing the determinants of unsafe/unhealthy behaviour

Application of **theoretical frameworks** explaining risk behaviour



Source: Gielen & Sleet, Epidemiol Rev 2003;25:65–76

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Sacurima COST Action – Working Group 2 objectives

- Understand the determinants of safety behavior in agriculture
 - Individual determinants (knowledge, attitudes, perceived risks, perceived norms, “safety literacy”)
 - Contextual/environmental determinants (safety culture)
- Identify ways to measure knowledge, attitudes, perceived risks, norms and behaviours among farmers regarding safety, health and risk management and to measure safety culture on farms.
- Produce innovative tools to measure determinants of safe behavior among farmers, be used for benchmarking national performance.

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Working Group 2 methods

- Literature reviews of
 - Conceptualisation of safety culture on farms
 - Tools to measure safety related knowledge, attitudes, perceived risks, norms and behaviours among farmers and to measure safety culture on farms
 - Interventions to promote safety culture in agriculture
- Set up a survey on safety culture on farms
- Formulate recommendations for practice and policies



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Definitions of safety culture

Definitions used in other industries

- “Those aspects of the organisational culture which will impact on attitudes and behaviour related to increasing or decreasing risk.”
(Guldenmund, 2000)
- “Safety culture ... forms the environment within which individual safety attitudes develop and persist and safety behaviours are promoted.”
(Mearns et al., 2003)
- “The enduring value and prioritization of worker and public safety by each member of each group and in every level of an organization.”
(Von Thaden & Gibbons, 2008)



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Definitions of safety culture

“The way in which safety is managed in a workplace. It is the combination of beliefs, perceptions and attitudes of employees toward the safety of workers and the overall safety of the work environment. Cultivating a safety culture is a key aspect in maintaining workplace safety.”

“A positive safety culture is the culture of a workplace in which all the employees think of safety as an important thing and behave in a way that prioritizes their own safety as well as the safety of those around them. This includes using proper personal equipment, following the safety laws and just generally being conscious of safety and safe practices at all times.”

(Safeopedia, 2018)



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Elements of safety culture

- The safety culture of an organisation is the product of
 - individual and group values, attitudes, perceptions, competencies, and patterns of behaviour
 - that determine the commitment to, and the style and proficiency of, an organisation's health and safety management.
- Organisations with a positive safety culture are characterised by
 - communications founded on mutual trust
 - shared perceptions of the importance of safety
 - confidence in the efficacy of preventive measures.”

ACSNI Human Factors Study Group: Third report - Organising for safety. HSE Books (1993)



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Implementing an effective safety culture involves

- Management commitment
- Visible management
- Good communications between all levels of employee
- Active employee participation
- Training
- Inspection
- Specific documents
- Learning organization - Enforcement and advice

ACSNI Human Factors Study Group: Third report - Organising for safety. HSE Books (1993)

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Safety Culture in Agriculture?

Agriculture has been one of the most hazardous industries in Europe, measured by work-related injuries, illnesses, disabilities and deaths. How to define what is good safety culture in Agriculture?



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Motives for safety and risk management on farms?



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Photo: MTV.fi



Photo: Norman Bradley



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Is this good Safety Culture?



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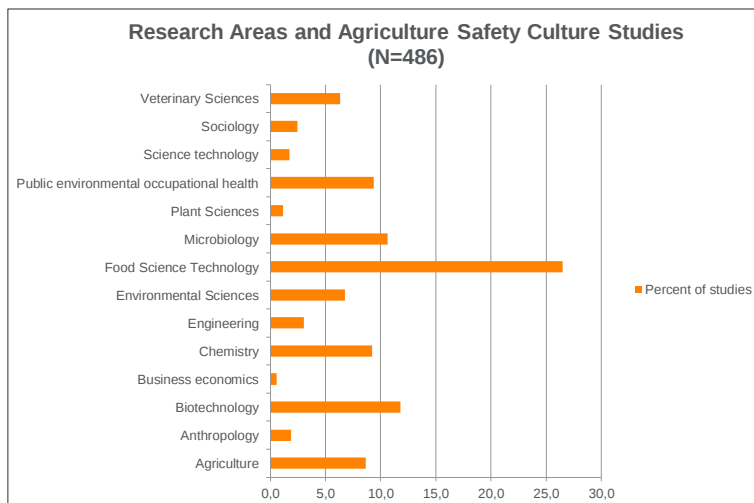
Literature study on safety culture in agriculture

Aims:

- to analyze the way safety culture is defined in agricultural settings
- to identify the main themes considered in agricultural safety studies

Keywords	Date range: 1997- 2017, Scope: Title, abstract, keywords, journals, books	Farm/agriculture safety culture studies applicable to (European?) agriculture
	Web of Science	Total
	Search results	Included articles
"Agriculture" AND " Safety Culture"	124	14
"Farm" AND "Safety Culture"	266	24
"Farm" AND "Safety Culture" AND "Health"	91	15
"Agriculture" AND "Safety Culture" AND "Health"	38	18
"Agriculture" AND "Safety Culture" AND "Knowledge"	10	5
"Farm" AND "Safety Culture" AND "Knowledge"	20	11
"Farm" AND "Safety Culture" AND "Attitude"	9	6
"Agriculture" AND "Safety Culture" AND "Attitude"	3	2
"Agriculture" AND "Safety Culture" AND "Behaviour"	2	2
"Farm" AND "Safety Culture" AND "Behaviour"	9	6
"Farm" AND "Safety Culture" AND "Legislation"	3	1
"Agriculture" AND "Safety Culture" AND "Legislation"	3	3
"Agriculture" AND "Safety Culture" AND "Regulation"	11	9
"Farm" AND "Safety Culture" AND "Regulation"	13	7
"Farm" AND "Safety Culture" AND "Risk Perceptions"	5	5
"Agriculture" AND "Safety Culture" AND "Risk Perceptions"	3	3

Literature study on safety culture in agriculture



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Literature study on safety culture in agriculture: Thematic analysis



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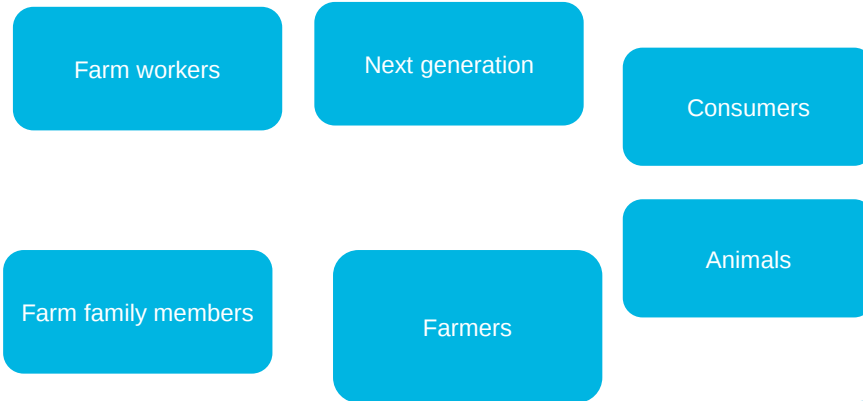
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Literature study on safety culture in agriculture:

Safety focus in study articles



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Conclusion

“An ounce of prevention is worth a pound of cure”



- Benjamin Franklin

Thank you !

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