Health and Safety in EU Agriculture

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Abstract

Health and safety have long been recognised officially as issues in EU agricultural occupation, but pose specific problems of definition, measurement and policy action. About 500 people per year die while working in EU agriculture, forestry and fishing, and there are about 150,000 non-fatal accidents at such work, as well as work-related physical and mental health problems. Incidence rates are generally higher than in other sectors. Moreover, on-farm accidents happen to a very wide range of ages, from the very young to the relatively old. There is no clear pattern of incidence rates across EU Member States, for a number of possible reasons. Policy action can take a number of forms, but must take into account changes in farming technology, and the need to reach a wide range of potential casualties.

Keywords: agriculture, occupation, health, safety, accidents,

1. Introduction

Agriculture is known as an unsafe and sometimes unhealthy sector of employment, with high rates of illnesses, accidents and deaths. On the other hand, outdoor activity is widely considered – especially by higher-income groups – as healthy with beneficial effect on "wellness" for many people[1], and farming – especially working with livestock – as a satisfying "way of life", with important socio-economic roles. This paper surveys – somewhat superficially and patchily – some European evidence in this area, and discusses how technical, economic and social developments may affect health and safety in agricultural occupations.

On one definition, "health" may be regarded as the absence of physical or mental disease or decay: in original (1948) World Health Organisation terms, "*a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity*". Another approach (Huber *et al*., 2011), which seeks to avoid "medicalisation" exacerbated by increasingly sensitive clinical testing procedures, is

[1] I am indebted to Professor Bill Slee for this view of the subject-matter.

to define “health” as “*the ability of individuals or communities to adapt and self-manage when facing physical, mental or social changes*”. Still other definitions distinguish between what outside observers can measure, and what the individual himself or herself feels and is able to express. In any case, one need not go so far as the American novelist J. P. Donleavy:

> “*When you don’t have any money, the problem is food. When you have money, it’s sex. When you have both, it’s health*”.

The opposite of health, ill health or morbidity, which includes illness and incapacity (e.g. due to an accident), can take many different forms – e.g. temporary or permanent, serious or minor, bodily or psychological. It can derive from many different causes, some linked to occupation but others arising from such factors as genetics, social contact, lifestyle (e.g. diet) and the environment. Some of these can be altered by individual choice and behaviour (e.g. at work), while others cannot.

Similarly, personal “safety” can be defined as “*relative freedom from danger, risk, or threat of harm, injury, …, whether caused deliberately or by accident*”. Again, this is a negative definition, leaving open the many possible causes (“hazards”) of lack of safety. Moreover, the term “relative” recognises that complete safety is unattainable, and indeed in economic terms is undesirable, since the costs of eliminating all possible hazards is likely to exceed the damage resulting from minor lapses in safety.

Occupational health and safety is a field well recognised in legislative, institutional and professional terms, with nearly all countries having specialised arrangements for defining, enforcing and monitoring dangers to workers in most sectors of the economy. However, agriculture sometimes has specialised legal and organisational arrangements, and in any case farming conditions often include a number of factors, such as self-employment, family-working, remoteness, and multiple and season-varying work tasks, which make it harder to apply state policy to the industry. The main types of risk associated with farming occupations are lung and skin diseases arising from agrichemicals (or prolonged sun exposure), noise-induced hearing loss, and injury or death caused by machinery use or buildings. These risks may be increased by long working hours at certain times of year, and may affect family members who are not strictly employees or even “workers”. As with any small business, the absence or incapacity of an important member of the farm workforce can have serious effects on the viability of the enterprise itself, perhaps with social, environmental and economic (e.g. structural) consequences.

This paper reports some analysis of these statistics, and, relying in part on the rather limited literature in this area, attempt some interpretation in the light of structural practice and change in farming, agronomic and technological developments, and statistical considerations such as reporting practices. It considers how the human risks of agricultural work may influence the structure and nature of agricultural occupation and employment in various parts of the EU and of its agriculture. It should be noted that European agricultural work differs from that in some other parts of the world, e.g. in developing countries where the main workforce is female (and generally much younger), where economic conditions may be much more difficult, and where sophisticated machinery is less common.

Methods of reducing deaths and illnesses amongst agricultural workers include technological innovation, regulatory change (both additional and enforced, and sometimes "private" as with supermarket standards and requirements), and a better "culture" of training and education which includes the concepts of risk management. Additional policy-related issues include the role of EU-wide initiatives, and the use of Pillar 2 funds for health and safety development.

2. Evidence

According to the EU Labour Force Survey (LFS), about 500 people per year die while working in EU agriculture, including about 100 in forestry (Table 1). Moreover, there are about 150,000 reported non-fatal accidents at work in the EU agriculture, forestry and fishing (AFF) sector, and about 10% of AFF workers report work-related health problems, physical and/or mental, each year[2]. Incidence rates per 100,000 people in employment in the AFF sector are generally higher for both fatalities and accidents than in other sectors, except for male fatalities in construction and manufacturing. Moreover, on-farm accidents happen to a very wide range of ages, from the very young (children who can hardly be regarded as being "in work") to the relatively old, who may well still be making contributions of farm labour, capital and management even over the age of 80. Fatal and non-fatal accident figures in agriculture have been gradually falling over recent years (2007 to 2013), and vary by country, sex, age, skill level, etc. Their economic consequences may also vary, both for the person concerned (e.g. days off work) and for the farm business.

As in other sectors (including services such as hotels and health care), males working in Agriculture, Hunting and Forestry (AHF, which excludes Fishing) are more likely to report accidents at work than females working in that sector (mostly presumably in Agriculture). The male rate, at 4.3% of the total in 2007, is about twice that for females at 2.5%, but slightly less than accident rates for males in Manufacturing (4.5%) and Construction (5.4%) (Eurostat, 2009).

Work-related health problems were higher in AHF for both men and women than in all other sectors except Mining and Quarrying, at about 10.2% and 12.7% respectively in 2007, compared to rates of around 6% for other sectors. The most common type of problem was related to backs. Incidence rates for workers exposed to one or more factors (such as awkward postures or heavy loads) adversely affecting *physical* health were relatively high in AHF for both males and females, at 57% and 48% respectively – the latter figure higher than those in all other sectors. On the other hand, incidence rates for workers exposed to one or more factors adversely affecting *mental* well-being (such as time pressures) were lower – at about 21% and 16% for men and women respectively – than in other sectors (with rates highest at over 40% in health and social work).

[2] "Fatal" accidents at work are those that lead to the death of the victim within one year. Non-fatal accidents at work are those that imply at least four full calendar days of absence from work (sometimes also called 'serious accidents at work'). Source: Eurostat.

The number of days where a non-fatal accident victim is unfit for work provides an indication on the severity of the injury (EC, 2008). In 2005, the average duration of absence from work in AHF (if over 3 days) was 43 days, compared to an all-sector figure of 35 days (32 in 1995), with only financial intermediation (48 days), extra-territorial organisations (49 days) and private household employment (53 days) having higher figures. The proportion of accidents at work with 'permanent incapacity or more than six months of absence' was 5.7% in AHF, compared to an overall figure of 3.9% in 2005. Not surprisingly, 'bites, kicks, etc.' by animals (and by people) to AFF workers accounted for relatively high proportions of both fatal and non-fatal accidents: 42% and 25% of the total number of such accidents respectively. In 2005, AHF reported the oldest average fatality age, at nearly 48 years, with non-fatal accident long-term absence at work almost the same, though a little lower than in some service sectors.

In Britain, rates of fatal injuries in agriculture (excluding Forestry and Fishing) between 1986/87 and 1991/92 averaged 7.7 per 100,000 workers but 11.0 for the self-employed, with an overall average of 9.2 (Table 2). This was a period when new UK economy-wide legislation on health and safety at work had been introduced, and was being enforced, but there is no obvious trend in the figures; indeed, those for the self-employed appear to have been rising. During the same period, nearly half of fatal injuries arose from vehicles or machinery, 15% from falls, and 9% from electrical contact.

In Lithuania, a study of the period 2003 to 2007 (Zabarauskaite and Blažiene, 2009) found a decrease in the number of fatal accidents but a rise in those classified as "mild" or "minor". Two thirds of all farm accidents happened to men, and almost a third to workers with less than one year's experience (there was a shortage of experienced farm workers during that period).

In Poland, the occupational accident ratio in agriculture was 13.3 reported cases per 1,000 workers in 2005 (Czarzasty, 2007), almost twice as high as the average figure for all other sectors, and exceeding the rate reported in construction (11.26): only mining and quarrying reported a higher accident ratio, of 15.82 cases. However, the number of farming fatalities had fallen from 316 in 1995 to 128 in 2005.

Cross *et al*. (2008) examined the self-reported health and well-being status of field and packhouse workers in UK vegetable horticulture, mostly young seasonal migrants from Bulgaria, Latvia, Lithuania, Poland, Russia and the Ukraine. They found that their health was significantly poorer than three different health national norms, though there was no obvious difference between working on conventional and organic farms except for a measure of depression. Workers on organic farms seemed to be happier as a result of the wider range of tasks they were required to perform, a lesson that may have wider implications.

3. Fatal Accidents

The top eight killers in agriculture are:

- Transportation accidents (being run over or overturning of vehicles)[3]
- Falls from height (from trees, through roofs)
- Being struck by falling or moving objects (machinery, buildings, bales, tree trunks)
- Drowning (in water reservoirs, slurry tanks, grain silos)
- Handling livestock (attacked or crushed by animals, zoonotic diseases)
- Contact with machinery (unguarded moving parts)
- Entrapments (under collapsed structures)
- Electricity (electrocutions)

Eurostat statistics for the EU-27 show that, over the period 2008 to 2013:

- There was an average of 4176 fatal accidents at work in all sectors, with a decreasing trend of about 5% per year
- Of these fatal accidents, about 530 occurred in Agriculture, Forestry and Fishing (AFF), with an average decrease of about 3% per year, partly caused by falling numbers in these sectors, which therefore performed relatively poorly over this time period
- Of these 530 fatal accidents, 400 occurred in Agriculture (crop and animal production, including hunting and related services), dropping at 4% per year.
- Incidence rates per 100,000 workers were: overall 2.05; AFF 5.18, Agriculture 4.16 and Forestry 21.97.
- Across countries, the highest incidence rates for fatal accidents across all sectors (EU-27 average 2.05 per 100,000 workers) were reported by Romania (5.47), Lithuania (4.64), Portugal (4.51), Bulgaria (3.83) and Latvia (3.73), while the lowest came from the United Kingdom (0.64), the Netherlands (0.82), Greece (0.97), Sweden (1.11) and Germany (1.20).
- For AFF, the highest five incidence rates (EU-27 average 5.18 per 100,000 workers) were for: Malta (45.59, last 2 years only), Austria (31.19), Ireland (22.53), Latvia (18.99), Romania (15.83), while the lowest AFF five were: Greece (1.56, but some zeroes excluded), Poland (1.77), Finland (2.51), Spain (4.47) and Germany (5.07). For Agriculture alone (EU-27 average 4.16 per 100,000 workers), the highest and lowest five rates were reported for virtually the same groups, though Slovenia reported a very low value of 1.71 even when some zeroes are excluded from the 5-year average (Table 3).
- For Forestry, excluding very high but single-year values for France, Luxembourg and Cyprus, the highest incidence rates were reported for Slovenia (93.74), Romania (6) and Austria (65.90), while the lowest rates came from Finland (4.48, but only two non-zero years), Sweden (8.89) and Slovakia (10.26).

There is no clear pattern amongst Member States in these statistics, but there appears some tendency for Central European countries to show high rates, and for higher-income ones to show lower ones, though with some exceptions (Austria, Poland).

[3] These may include or exclude some "road accidents" – which occur to both farm workers and others – involving tractors etc. Increasing vehicle numbers, sizes and speeds may be expected to boost the numbers of such accidents. I am indebted to Prof. Graham Dalton for this observation.

4. Non-Fatal Accidents

Over the same period (2008 to 2013) in the EU:

- There was an average of about 3.4 million reported non-fatal accidents at work in all sectors, falling at a rate of around 4% per year. Of these, about 2.4 million (72%) occurred to males.
- In AFF, there were about 155,000 non-fatal accidents, 79% to males, and in Agriculture, about 131,000 such accidents, 77% to males.
- Incidence rates per 100,000 workers were: overall 1684 (males 2224), AFF 1468 (males 1832), Agriculture 1327 (males 1654), and Forestry 4111 (males 4320).
- Those aged over 45 or over accounted for under 40% of all non-fatal accidents to workers but for 60% of those in Agriculture.

Of all EU-reported accidents, fatal and non-fatal, the proportions occurring to various parts of the body (all sectors and AFF) were: head 7% and 10%; neck 2% and 2%; back 11% and 8%; torso 4% and 6%; other (presumably mainly limbs) 76% and 74%. The proportions of injury types, for fatal accidents and those leading to more than 3 days' absence from work, were (all sectors and AFF): wounds and superficial 32% and 35%; bone fractures 11% and 18%; dislocations, sprains, etc. 29% and 24%; other 27% and 23%. In 2013, 7.7% of workers in all sectors reported a work-related health problem, with the percentage higher, at 9.8%, for AFF.

Across EU-27 Member states, the five highest and five lowest incidence rates for non-fatal accidents were reported as:

- All sectors (EU average 1684): highest Spain 3215, France 3023, Portugal 3018, Belgium 2269, Denmark 2229; and lowest Romania 57, Bulgaria 92, Latvia 161, Lithuania 214 and Slovakia 403.
- For the AFF sectors (EU-27 average 1468): five highest France 4715, Italy 3840, Germany 3512, Austria 2752 and Spain 2745 (and the UK 2144); the five lowest were: Romania 56, Bulgaria 76, Poland 121, Greece 177 and Latvia and Lithuania both 208.
- For Agriculture (EU-27 average 1327, EU-15 average 2042): five highest France 4284 (but highly erratic values), Germany 3415, Italy 3303, Austria 2665 and Estonia 2347; the five lowest were: Romania 32, Greece 54, Bulgaria 66, Poland 89 and Lithuania 191 (Table 3).
- Incidence rates for Forestry (EU-27 average 4111; EU-15 average 6636) followed much the same pattern, except for very high figures for Italy (15888) and Spain (12500)

These non-fatal accident rates for EU Member States seem to follow an opposite pattern to those for fatal ones described above. This may be because better protection (clothing, equipment) and safety observance lead to fewer deaths but more non-fatal accidents; or perhaps there is a reporting bias explanation.

5. Mental Health and Suicides

Mental health can have widespread effects, ranging from suicide (see below) to adoption rates for agri-environmental schemes (Hounsome *et al*., 2006). An OECD (2014) pan-economy estimate is that such health problems have direct and indirect costs which may exceed 4% of GDP. However, mental condition is inherently more difficult to measure than physical events such as accidents, or even bodily conditions such as back pain. It may arise from bodily problems such as cancer, or from factors such as economic stress exacerbated by isolation, a culture of independence, and poor access to mental health services. Like some physical illnesses, mental health may deteriorate and recover gradually over time.

Edwards *et al*. (2012) note reports of high rates of suicide among farmers in Australia, Canada, India, Japan and the UK (where it was between 1.5 and 2.5 times the non-farming rate between 1993 and 2008), but, after reviewing studies of causal factors, conclude that "*The question as to whether farmers have poorer mental health compared to the general population remains open*." A similar conclusion was reached by Fraser *et al*. (2005).

From a survey based on interviews and self-administered questionnaires in Wales, Edwards *et al.* (2012) found "*higher psychological morbidity among farmers and their spouses compared to the non-farming population*". They found that "*male farmers, those aged from 45 to 64, self-employed or not in paid employment, having a non-supervisory position and living in a rural area*" are at higher risk of psychiatric disorder compared to corresponding subgroups in the non-farming population.

Suicide can be regarded as an ultimate symptom of mental morbidity, and is relatively easily measured, even though it can sometimes be difficult to distinguish between suicide and a fatal accident. Moreover, attitudes towards suicide vary across cultures, and this may affect both their actual frequency and their official reporting. Farmers have of course better opportunities and methods for suicide, such as lone working, and guns. Nevertheless, within countries (and other social groups, such as males and females, or rich and poor), relative rates amongst farmers and non-farmers can be usefully compared, taking into account the availability of methods such as poisons and gun ownership, and stress factors such as business crises.

The recent crisis in the EU wheat and dairy sectors in the last couple of years (2015-16) gave rise to widespread reports (e.g. Euronews website) of farmer suicides, such as 600 per year in France alone, where farmers are reported to have suicide rates three times the non-farmer average. Of 2,769 deaths registered among male French farm managers between 2007 and 2009, 417 were suicides (Politico website, 22 August 2016). Germany is reported to have at least 500 farmer suicides each year, and Belgium 400 (The Herald, 2016)[4].

In March 2016, members of the European Parliament Agriculture Committee held a minute's silence for those farmers who had committed suicide as a result of the on-going crisis in agricultural markets. In the United States, a study by the Centers for

[4] These figures may be compared with the approximately 400 accidental deaths reported above for the EU as a whole.

Disease Control and Prevention (Mackintosh *et* al., 2012) found that the farming, fishing, and forestry sectors accounted for the highest rates of suicide (84.5 per 100,000 overall; 90.5 for men). The next highest rate of suicide was found in the construction, repair and extraction groups, at around 50 per 100,000, while office (including education) groups had rates under 8 per 100,000.

6. Discussion

Of course, officially recorded statistics are unlikely to reflect the full extent of on-farm deaths, accidents and illnesses, especially mental illnesses arising directly or indirectly from agricultural occupations, some of which are undertaken in conditions of isolation and/or adverse environmental conditions. And the existence or non-existence of health provision and insurance arrangements may well affect reporting rates.

Linking “health” and “safety” too closely in an agricultural context may be misleading; though lack of on-farm safety may lead to accidents that result in temporary or permanent disability, or even in death, there are many forms of ill-health that affect farm workers and farm families. Some of these forms of ill-health affect all types of occupation and social groups; others may be more or less prevalent as a result of working and living on a farm. The wide range of ages often present on farms makes direct comparison with health in non-farm households problematic. Moreover, there is the question of self-selection: farmers and farm workers may choose such occupations in the light of their health as they see it, while others (including farm family members) evade such work. A person lacking strength or endurance is unlikely to be happy or successful in agricultural work, while its often isolated nature may attract people with particular mental attitudes (self-confidence, anti-sociality) – for better or worse, in terms of dealing with that condition. Comparisons might be drawn with other single-person occupations such as lorry (truck) driving, or home-working, but the analogies are not exact.

Changing technology in agriculture has certainly affected the rates and nature of occupational risk in agriculture. Greater size of farm machinery and buildings (and of livestock such as cattle) increases the inherent damage that can result from carelessness or misuse; on the other hand, such capital items have displaced many people away from agriculture, and safety features, such as anti-roll bars on tractors, can be incorporated into their design at smaller relative cost.

Agri-chemicals pose particular dangers to farm workers, some becoming apparent only after a considerable time, and with delays in bringing in and enforcing regulation, such as the need for training and certification. Organophosphates are a well-known example. Knowledge of such dangers is undoubtedly improving, but needs continual updating, as well as cooperation with manufacturers as regards supplies and labelling.

Electronics, which are playing an increasing role in agriculture, have effects on farm safety. The mobile phone helps contact in case of accidents and sudden illness, and radio reduces the feeling of isolation and boredom. More modern monitoring devices, both fixed and mobile (e.g. drones), reduce the need for physical labour, and can warn of incipient hazards.

From a policy perspective, governments have to decide whether occupational health and safety in agriculture can be adequately administered within a general nation-wide framework of agencies and regulation[5], or whether it needs separate treatment to deal with its unusual structure, work activities and labour force. The 2007-2012 EU strategy had a core target of cutting workplace accidents by 25%, and evaluation was expected to show significant overall reductions in fatal and non-fatal accidents and ill-health across many sectors (Griffin, undated). However, many EU Directives have little or no impact on sectors with high rates of self-employment, and agriculture is not covered by a specific EU Directive. No doubt the characteristics of agriculture led to its persistently high and disproportionate levels of fatal and non-fatal injuries and ill-health, and explain why improvement was significantly less in that sector than others (Table 1). It has been argued (Griffin, undated) that specific funding from Pillar 2 should be allocated to support health and safety initiatives and compliance in agriculture and forestry. Another but no doubt unpopular approach would be to add health and safety items to the Pillar 1 cross-compliance requirements.

The current EU initiative is the Occupational Safety and Health (OSH) Strategic Framework on Health and Safety at Work 2014-2020 (European Commission, 2014). It identifies three "challenges", i.e.

- improve implementation of existing health and safety rules, in particular by enhancing the capacity of micro and small enterprises to put in place effective and efficient risk prevention strategies
- to improve the prevention of work-related diseases by tackling new and emerging risks without neglecting existing risks
- to take account of the ageing of the EU's workforce

and seven "objectives", i.e.

- further consolidating national health and safety strategies
- providing practical support to small and micro enterprises**,** such as the risk assessment web platform OiRA (http://www.oiraproject.eu/)
- improving enforcement by Member States and their labour inspectorates.
- simplifying existing legislation
- addressing the ageing of the European workforce and improving prevention of work-related diseases to tackle existing and new risks such as nanomaterials, green technology and biotechnologies**.**
- improving statistical data collection
- reinforcing coordination with international organisations.

In Ireland, where agriculture is a major sector which the national Health and Safety Authority has prioritised, efforts "*to provide the essential prerequisites of a sound legislative base, user-friendly guidance and appropriate advice and information* [have] *seen little if any improvements in agriculture*" over a decade (Griffin, undated). Moreover, as may be happening in other countries, reductions in state budgets have reduced the capacity of the Irish Authority and other competent agencies, during a

[5] Regulations for animal health and food safety can have negative side-effects for occupational health and safety in agriculture. For example, treatment of large animals for parasites and diseases can be dangerous to both farm workers and veterinarians. Policy-makers should of course consider and evaluate the difficult balances of risk and harm involve here. My thanks go to Prof. Graham Dalton for suggesting this aspect.

period when regulatory stress – both public (CAP administration) and private (supermarket requirements) – has increased considerably.

Despite these handicaps and drawbacks, the gradual spread of general education, and improvements in communications both physical and electronic, make it easier to reach farmers and farm workers than ever before. Some countries have entry requirements for farming, and these can ensure basic training and awareness of agricultural health and safety. Others have tightened regulations, forcing buyers of new products and equipment to undergo certification before use. Manufacturers of machinery and farm inputs can be encouraged or forced – perhaps by EU regulation – to add safety features and information to their products. All these, plus perhaps the re-direction of EU funds in the direction of what is clearly a 'public good', e.g. through subsidising ways in which farmers can make personal contacts and thus reduce the rate of suicides, can lead to a gradually improving picture in this important area.

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Table 1: EU-27 and EU-15 Fatal and Non-Fatal Accidents at Work, Numbers and Incidence Rates per 100,000 workers, Averages and Average Annual Changes, 2008-2013								
	Fatal Accidents				Non-Fatal Accidents			
	Numbers		*Incidence rates*		*Numbers*		*Incidence rates*	
	Average	Av. Annual Change	Average	Av. Annual Change	Average	Av. Annual Change	Average	Av. Annual Change
All economic sectors								
EU-27	4176	-202	2.05	-0.10	3,437,103	-142,142	1684	-71
EU-15	2901	-80	1.75	-0.04	3,226,051	-126,539	1947	-75
Agriculture, forestry and fishing								
EU-27	529	-17	5.18	-0.45	154,707	2,257	1468	-34
EU-15	419	-11	6.50	-0.56	148,928	2,698	2243	-45
Agriculture (crop and animal production, hunting and related service activities)								
EU-27	397	-15	4.16	-0.41	130,886	2,165	1327	-34
EU-15	341	-11	5.71	-0.56	126,373	2,580	2042	-46
Forestry and logging								
EU-27	103	-3	21.97	-0.87	19,220	66	4110	-19
EU-15	52	-1	19.15	-0.48	18,034	84	6636	-42

Source: Eurostat, and author's calculations.

Table 2: Fatal Injuries to Employees and Self-Employed People in Agriculture, Britain, 1986/87 to 1991/92								
	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92		Averages
Employees								
- number	27	21	21	23	25	18		22.5
- rate per 100,000 workers	8.6	6.8	7.0	8.1	9.0	6.7		7.7
Self-Employed								
- number	17	31	25	30	27	32		27
- rate per 100,000 workers	6.9	12.7	10.3	12.3	10.9	13.0		11.0
Employees and Self-Employed Rate per 100,000 workers	7.8	9.4	8.5	10.1	9.9	9.7		9.2
Source: UK Health and Safety Executive; Table 5.1 in Soffe (1995) *The Agricultural Notebook* (19th edition), p.65.								

Table 3: Work-Related Accidents and Health Problems, EU Member States

	Accidents Average Incidence* 2009-13		Health Problems** percentages, 2013
	Fatal	Non-Fatal	
EU-27	4.16	1327	10
EU-15	5.71	2042	
Belgium	9.53	1376	11
Bulgaria	7.13	66	5
Czech Republic	8.67	1780	7
Denmark	10.13	1432	7
Germany	4.49	3415	17
Estonia	10.19	2347	
Ireland	18.23	903	3
Greece	3.37	54	3
Spain	2.89	2332	6
France	14.35	4284	14
Croatia	4.22	650	8
Italy	12.04	3303	5
Cyprus	14.45	526	16
Latvia	9.69	212	10
Lithuania	8.58	191	6
Luxembourg	16.09	2059	
Hungary	6.76	496	5
Malta	55.43	829	
Netherlands	6.89	1861	
Austria	29.41	2665	24
Poland	0.97	89	21
Portugal	2.49	621	9
Romania	7.29	32	2
Slovenia	1.71	754	9
Slovakia	8.64	918	10
Finland	2.86	2249	33
Sweden	10.05	645	22
United Kingdom	11.25	1915	5
Norway	13.27	670	14
Switzerland	3.58	2337	12

* incidence rate per 100,000 workers

** includes Forestry and Fishing; EU-28