

Operative competence: HSE's expectations

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Aims

- Describe why competence is important
- HSE's definition of competence & consequences of non-compliance
- How to prioritise training
- Sign post to relevant training
- Deal with questions

What are the common causes of serious incidents?

- Arboriculture
 - Falls from height
 - Being struck by falling objects
 - Contact with moving machinery
- Amenity horticulture
 - Vehicle overturns
 - Contact with moving machinery
 - Musculo-skeletal disorders

Industry statistics

Uneven accident reporting

Amenity Horticulture:

- 50% of the activity is associated with construction
- Circa 2 fatalities per year; 3 injuries a week

Arboriculture:

- Average of 3 fatalities per year; 3 major injuries per week

Deaths and injury in agriculture

30 people killed

32 Annual average over the last five years



9

Killed when struck by farm vehicles
Incidents included tractors, trailers, telescopic handlers, ATVs



6

Killed when trapped by something collapsing
Incidents included machinery supported by lifting equipment, parts of a building



5

Killed when struck by objects
Incidents included bales, tree branches, equipment



3

Killed by contact with electricity
Incidents involved overhead power lines



2

Killed by falling from height
Incidents involved roofing work



2

Killed by animals
Incidents involved cattle



1

Killed by contact with machinery
Incident involved a PTO (power take-off) shaft



1

Killed by asphyxiation
Incident in a grain silo



1

Killed when struck against something fixed
Crushed between machine and a door frame

source: RIDDOR

This information is also available as a poster at www.hse.gov.uk/agriculture/resources.htm



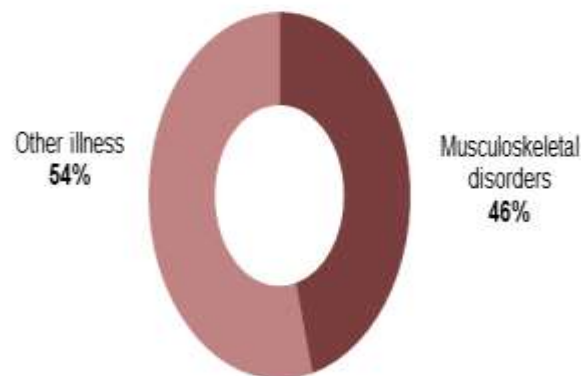
Health and safety statistics for the agriculture, forestry and fishing sector in Great Britain

15,000 workers suffering from a work-related illness each year (LFS)

27 fatal injuries to workers in 2016/17 (RIDDOR)

13,000 non-fatal injuries to workers each year (LFS)

Work-related ill health by illness type



(Source: LFS annual average estimate 2014/15-2016/17)

Agriculture compared

Injury rates over time

Agriculture has the worst rate of worker fatal injury (per 100,000) in the main industrial sectors: **16 times higher** than the All Industry rate

7.61

Injury rate 2016/17(p)

8.44

Injury rate (annual average over 5 years)

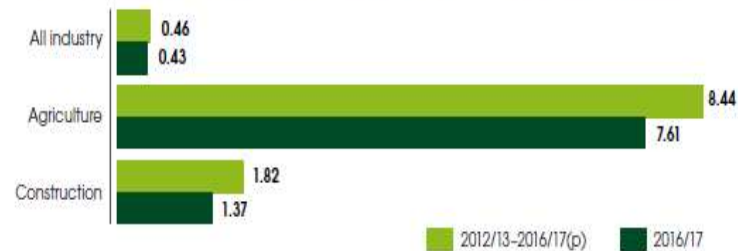
Agriculture's injury rate (2016/17(p)) is nearly **6 times higher** than construction's.

Injury rates over last 35 years

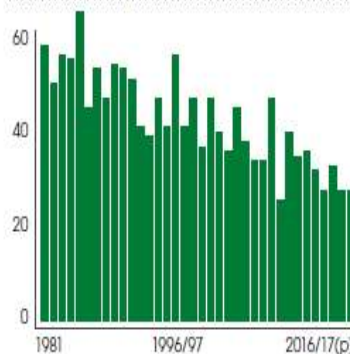
The total number of fatal accidents is falling over time.

Over the last 35 years the fatal injury rate for agricultural workers has shown no clear trend, although there are some signs of improvement in the last 5 years

Rate of fatal injury to workers (per 100,000) in Agriculture and Construction compared to All Industry group (2016/17(p)) and average (2012/13-2016/17(p))



Number of fatal injuries to workers over a 35-year period (1981/82-2016/17(p))



Fatal injury rate (per 100,000) to workers over a 35-year period (1981/82-2016/17(p))



Accidents - arboriculture

2015 - A 34 year-old self-employed tree surgeon was struck by a falling tree branch. The tree branch fell, bounced and struck his head.

2011 - A 39 year old self employed contractor died when he was hit by a branch which dropped from the tree. The branch ricocheted and hit him on the head.

Recent prosecutions - arboriculture



Essex tree surgeon in court after chainsaw fall onto worker

Employer fell from tree and landed on employee, both men injured

Using ladder to gain access to height, fell when branch was cut and knocked him off the ladder

No training, no safe system of work, no PPE – but 30 years experience!

Fined £10,000 plus costs of £889

Accidents – Amenity horticulture

2014 - A 55 year old woman died when the mower she was operating ran down a slope and overturned. The mower was not fitted with ROPS or a seat restraint.

2012 - A 51 year old employee suffered a broken pelvis and was off work for 12 months. Trapped when tractor overturned and she was thrown from the cab.

Accidents - arboriculture

2016 - A 45 year-old self-employed tree surgeon fell from a tree. He was cutting branches from a tree. When he fell he was not connected to a climbing rope.

2008 - A 44 year old self-employed arborist died when he fell from a tree. He was using a chainsaw and ladder and was not connected to a climbing rope.

Recent prosecutions

Sentences after tree-felling incident leaves worker in wheelchair

Cleaning contractor employed to fell tree at a school!
Partially cut branch struck ladder causing worker to fall.

Suffered permanent spinal injuries

Incompetent contractor, no risk assessment, no safe system of work at height, nor training, inadequate PPE

Client fined £35,000 plus £25,000 costs.

Contractor 18 months prison sentence and £2,000 costs

Recent prosecutions

Cirencester Town Council fined for worker's injuries (August 2014)

Employee suffered fractured ribs when the ride-on mower he was operating overturned.

Slope was 64 degrees, mower not suitable for slopes exceeding 25 degrees

Failure to carry out risk assessment, plan the work, provide suitable equipment and adequate training and instruction.

Fined £12,000 with £17,000 costs

What is competence in this sector?

An operative with a card/certificate in their pocket?

Someone with 'grandfather rights'?

A worker who has driven a tractor since they were 13 at home?

A telehandler driver experienced in construction?

A chainsaw operator from a forestry background doing tree surgery?

COMPETENCE = Skills + knowledge + experience + training

- Use manufacturer's instructions
- Use TNA approach to find skills gap
- Machinery attachments may impact on safety, e.g. forks/work platforms/lifting appliances on telehandlers
- Context of plant/equipment use is key, e.g. slopes, near the public, weather
- ROPS & seatbelts

How is competence assessed & recorded?

Training Needs Analysis

My definition:

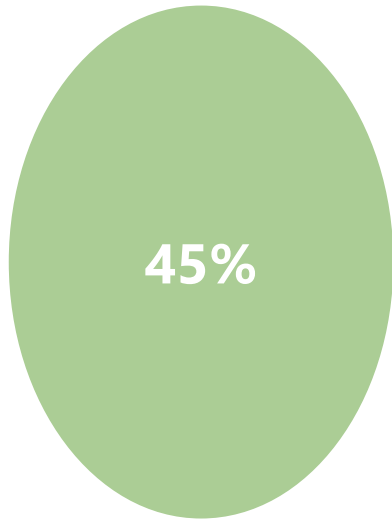
A means of identifying gaps in workplace skills & knowledge that will lead to improved operative risk awareness & provide the skills to implement suitable control measures to work safely.

Action:

- 1) Benchmark required SKET e.g. NOS, skills in an instruction manual or system of work from a risk assessment
- 2) Determine what SKET are missing
- 3) Chose or design training & instructions (train the trainer/assessor)
- 4) Create a means of measuring that SKET are being used post training e.g. SVQ assessment or in-house assessment + log book

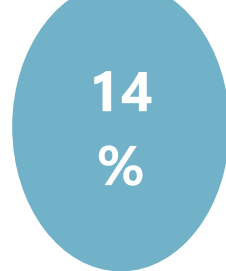
Attitudinal differences are the defining characteristics of each segment

Planners



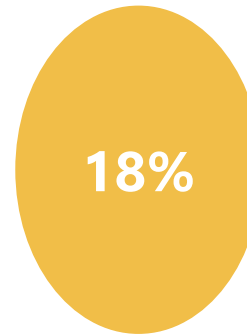
Most risk averse, but **feel safest and most able to manage risks** – and had fewest accidents

Pragmatists



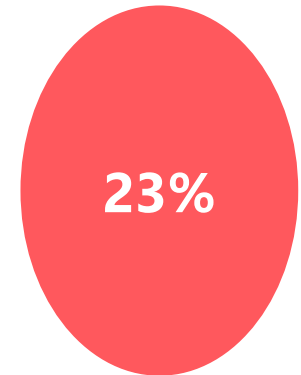
Least worried about risk and consequences, but relatively safe behaviours

Risk-takers



Most likely to **enjoy risks** and behaviour reflects this – but worry about consequences

Unclear



Feel **least safe and have most accidents**, but also seem **unclear what to do**

Segment 4 – Unclear

Feel least safe and have most accidents, but also seem unclear what to do

Attitudes

- Relatively cautious in daily life
- Feel least safe in work on farm
- Least likely to say they know all risks on farm
- Most likely to agree it's easy to forget being safe when busy
- Relatively likely to think working on a farm is always risky
- Most concerned about regulatory compliance & HSE inspection

Behaviours

- Least risk management e.g. thinking things through, appropriate actions
- Most likely to work when sick, injured or tired
- Most likely to do jobs they lack skills or equipment, or take risks to save time

Experiences

- Experienced the most accidents
- Most likely to have experienced 2 or more near misses



More likely on smaller farms



Least likely to have sought safety advice



Lowest mental wellbeing

Video clips



Video clips



Video clips



Good practice - instruction

- Information and instruction
 - Informing them of any hazards to be controlled e.g. public access, utilities, traffic, diseased trees, angle of slopes
 - Agreeing safe methods of work – using risk assessment, and for unusual jobs, a method statement
 - Monitoring and reviewing performance – make occasional visits to site, record performance

Training References

- <https://books.hse.gov.uk/bookstore.asp?FO=1356943&Action=Book&ProductID=9780717628742&From=SearchResults> – Appendix 4.4
- <http://www.lantra.co.uk/awards/training-and-qualifications>
Agriculture/forestry/horticulture courses
- <http://www.bali.org.uk/lisscscs/> Landscape courses
- <https://www.cityandguilds.com/qualifications-and-apprenticeships/land-based-services#fil=uk> Forestry/arboriculture/horticulture
- <https://www.sqa.org.uk/sqa/71823.html> Street works
- <https://www.sqa.org.uk/sqa/14321.html> Horticulture
- <https://www.ukstandards.org.uk/Pages/index.aspx> NOS
- <https://www.ipaf.org/en/management-training> WAH planning course
- <https://www.cpa.uk.net/sfpsgpublications/> construction plant guidance
- <https://ladderassociation.org.uk/training/>

Summary

- ✓ Formal courses for high risk activities e.g. use of chainsaws, plant & tractor work, machinery used near the public, construction related work
- ✓ Grow your own SQA qualified trainers
- ✓ Assess H&S SKET gaps - use manufacturer's manual, NOS & risk assessment
- ✓ Consolidate & assess competence
- ✓ A 'ticket' *does not* = competence
- ✓ Card scheme membership is not required by law. Suitable information, instruction and training must be provided

The future: robot mowers??

ANY QUESTIONS?