

The Prevalence of Work Related Injuries and Occupational Diseases in Lithuania

Workshop: How to improve safety culture and risk management in vulnerable populations in agriculture?

25-26 of April, 2019
WG3 Kaunas meeting



COST Action CA16123
Safety Culture and Risk Management in
Agriculture



Faculty of Agricultural Engineering
Institute of Agricultural Engineering and Safety



dr. Gediminas Vasiliauskas



gediminas.vasiliauskas@vdu.lt

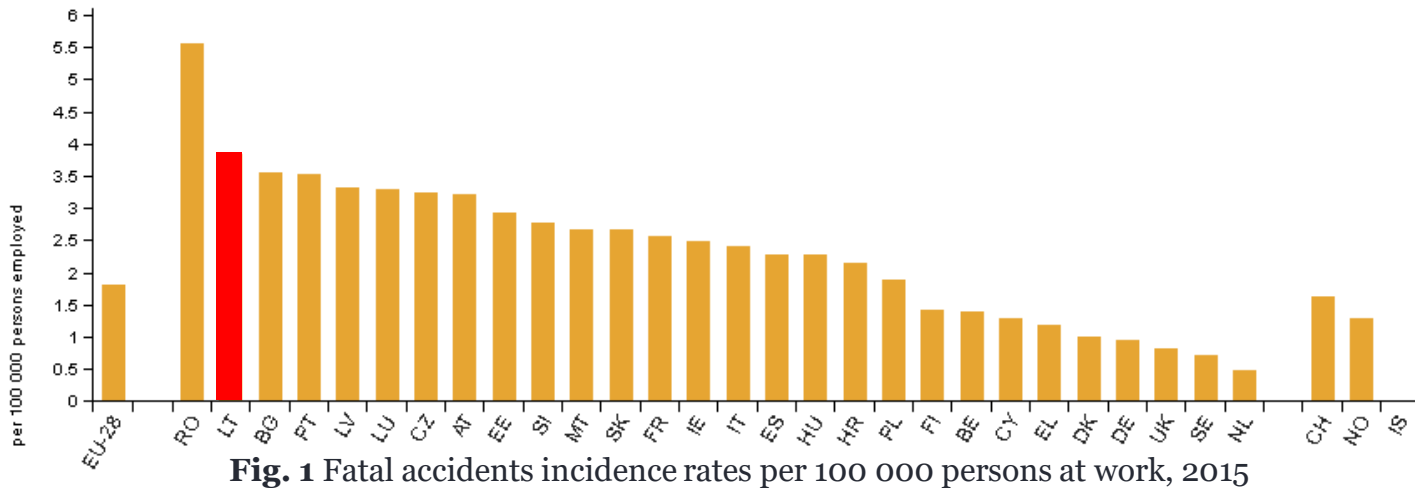


+370 689 77015

Overview

- Tendencies of work related injuries and accidents at work;
- Occupational diseases;
- Agriculture in the context of other economic activity sectors;
- What we do for the progress?

EUROSTAT statistics in EU-28



„Top five“ sectors:

1. Construction;
2. Services;
3. Vehicle and self-propelled machinery maintenance;
4. Agriculture
5. Forestry

State Labor Inspectorate Statistics in Lithuania

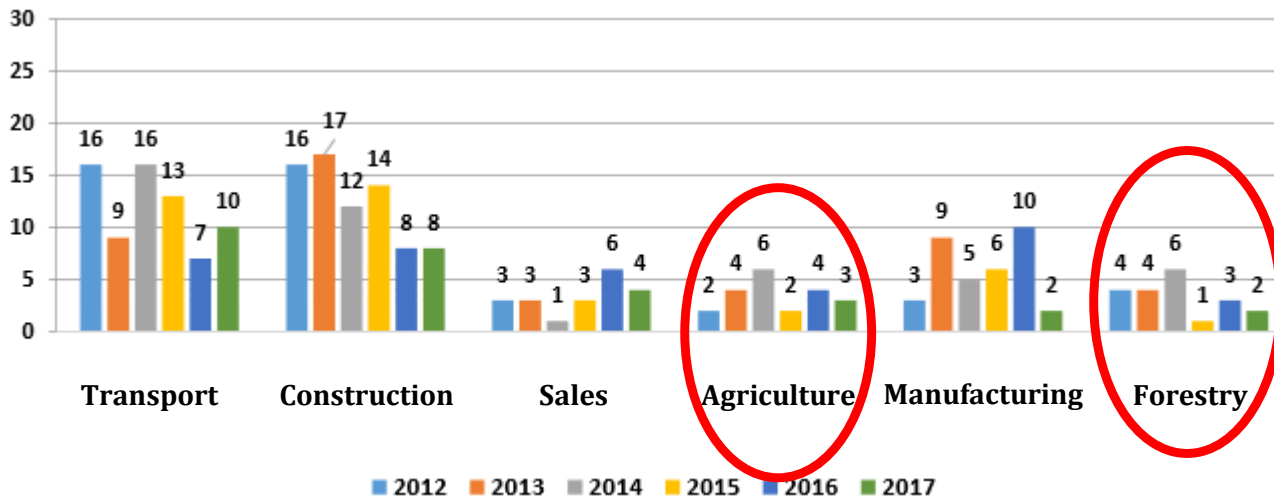
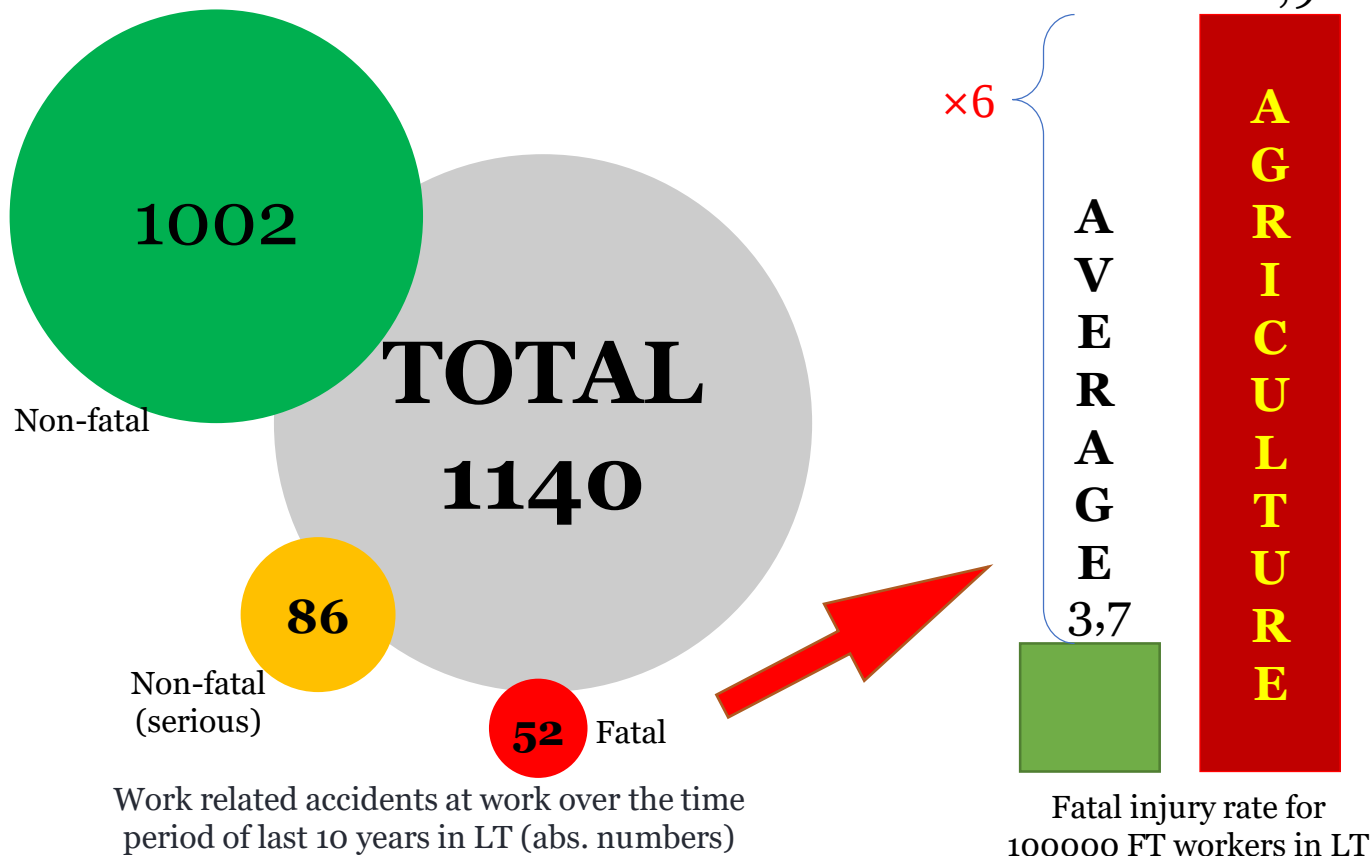
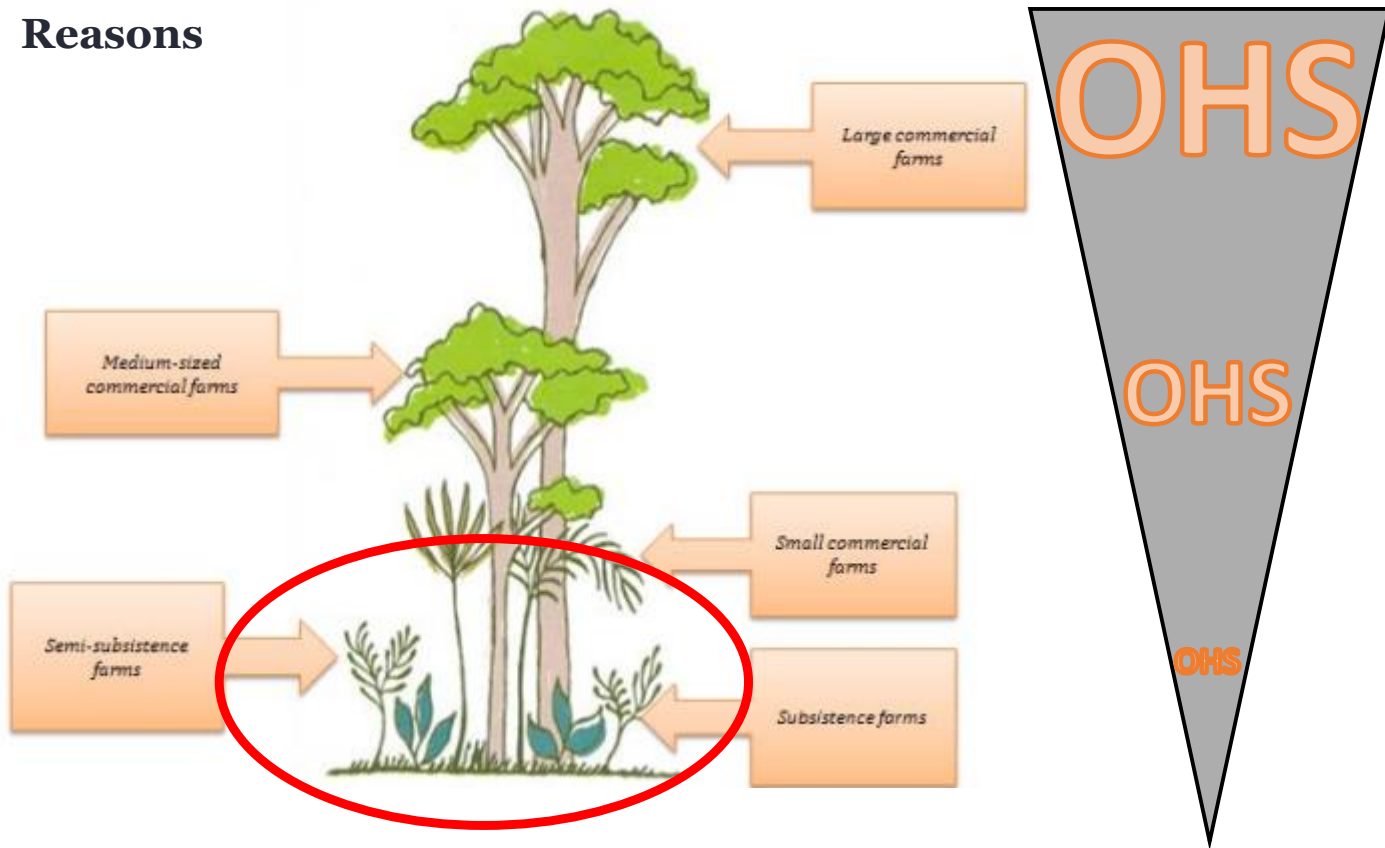


Fig. 2 Fatalities at work (annual) over the time period 2012-2017 in LT (no. of cases)

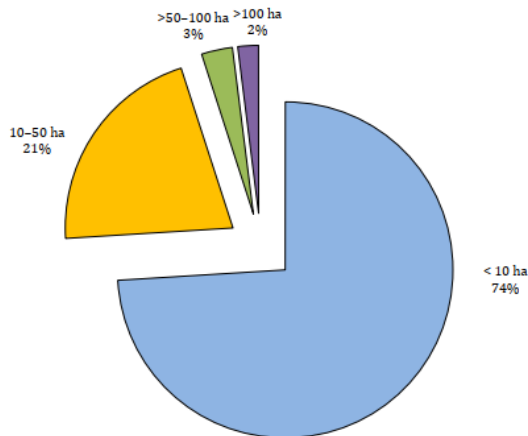
Facts & Figures: Lithuanian case*



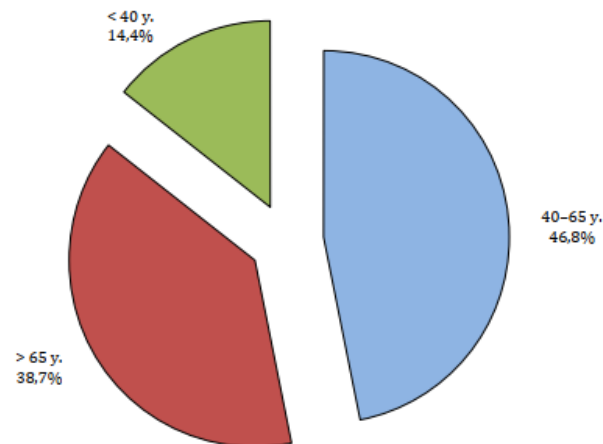
Reasons



Some more focus on agriculture



Distribution of agricultural holdings by size group in Lithuania in 2017



Distribution of registered farmers by age in Lithuania in 2017

Main causes influencing injuries include:

- Insufficient internal safety control;
- No risk assessment;
- Workers are not instructed;
- No manuals for safe operation of equipment;
- Habbits;
- Alcohol.

Attitudes and beliefs related to unsafe working conditions

- It can't happen to me.
- When my number is up, it's my turn.
- I'll just take one more chance or I have done this before without no consequences

Location of the
fatal accident

Maintenance of the variable
chamber baler without switching
off the engine (PTO)

Experienced worker (8 years)

Risk assessment -> OK

ALCOHOL!!!

Some more examples...

- Serious whole body injuries in **animal** (bull) **contact**;
- Serious injuries of the milkmaid in a **cow contact**;
- **Falling** from 2 meter platform (poultry farm);
- **Falling** from a mobile platform (cucumber farm);
- **Falling** from ladder during roof renewal works;
- Serious injury when changing (inflating) the tire (**tire lock ring release**);
- **PTO's!!!**
-

And facts...

- 50% farm workers were seriously injured in animal contact because of the alcohol abuse;
- 35-40% accidents - physical hazards (rotating or moving parts, PTO shafts etc.);
- 1 of 3 accidents for unexperienced workers (up to 1 year);

Illegal work

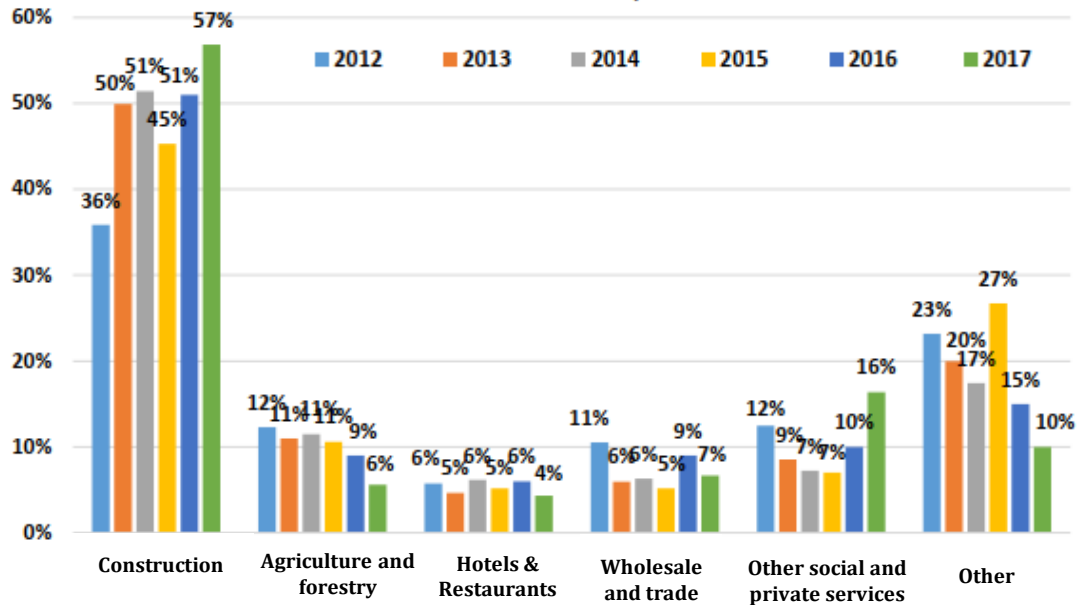


Fig. 3 Illegal workers by sector of economic activity

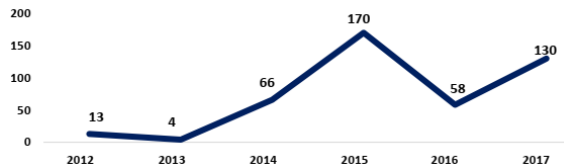


Fig. 4 Illegal migrant workers

Source: Data of the Register of the State Labor Inspectorate of the Republic of Lithuania.

Occupational diseases registered in LT

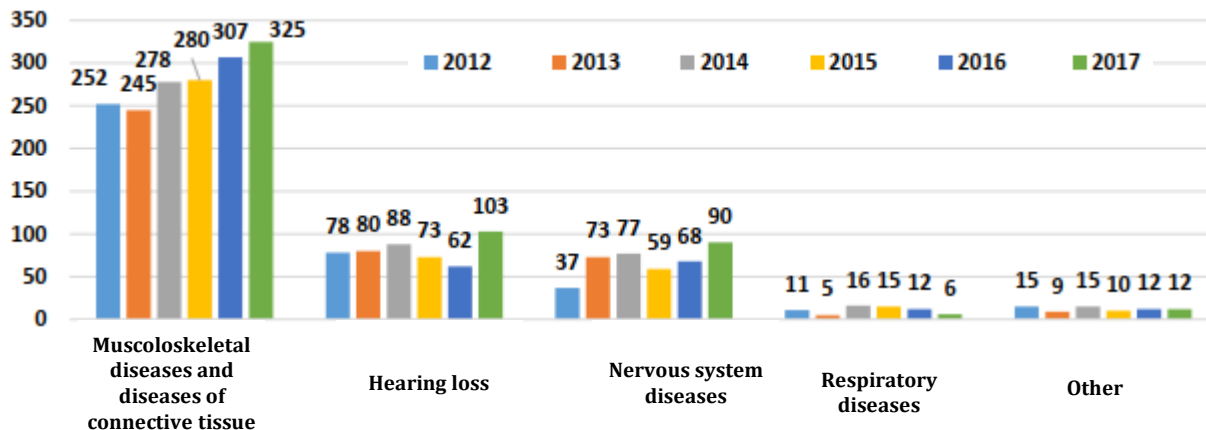


Fig. 5 Occupational diseases by the group of disease

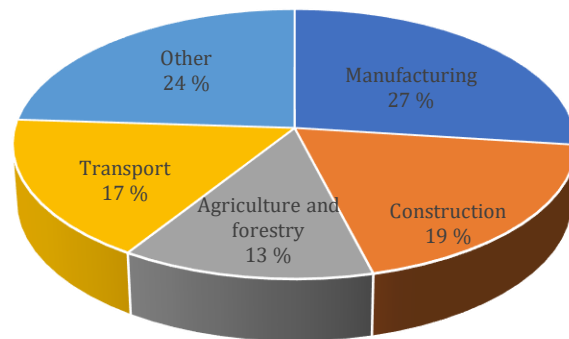


Fig. 6 Registered occupational diseases by sector of economic activity

Occupational diseases in LT

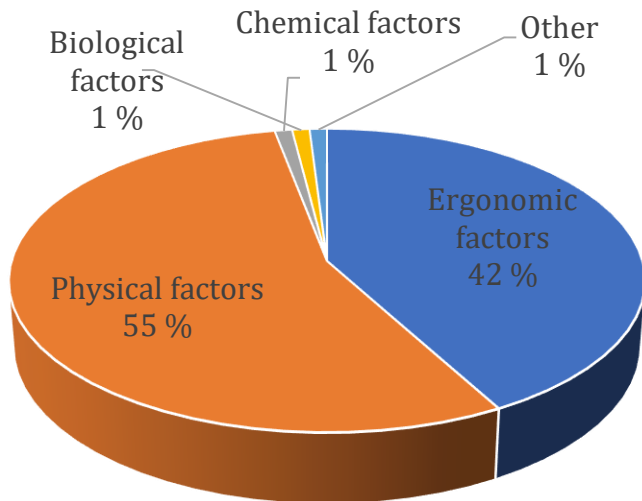


Fig. 7 Occupational diseases by factors

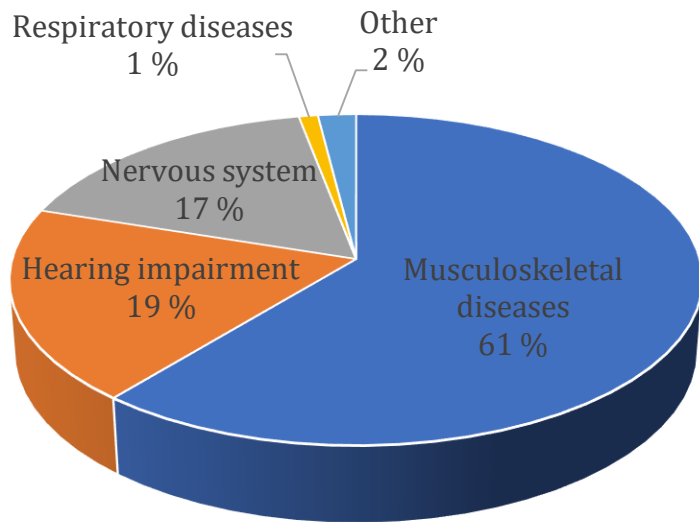
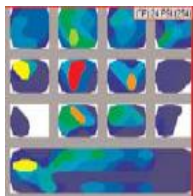


Fig. 8 Structure of occupational diseases

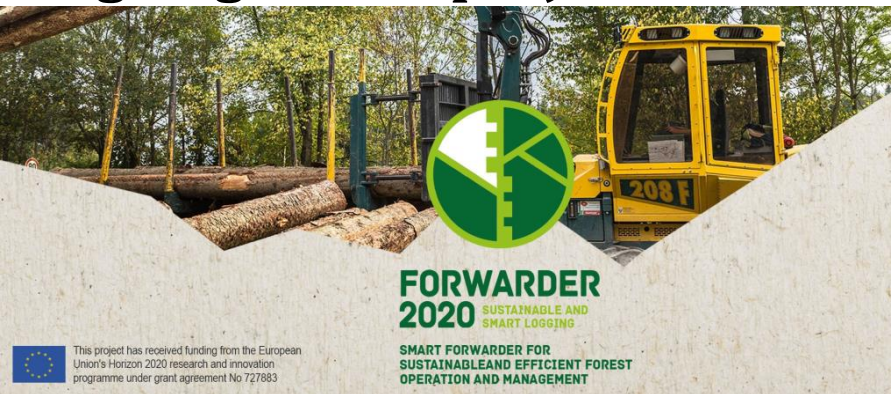
About us: Technology safety laboratory

Investigation of the system „**MAN – MACHINE – ENVIRONMENT**“:

- **Occupational risk management** by technical and organizational means;
- **Environmental pollution**, measurements and evaluation of various risk factors in living and work environment;
- **Good practice** in the fields of human safety and environmental protection.



Ongoing H2020 project



FORWARDER2020:
Smart Forwarder for
sustainable and
efficient forest
operation and
management

Prototype
forwarder whole
body vibration in
the field tests



Occupational noise and vibration. Results

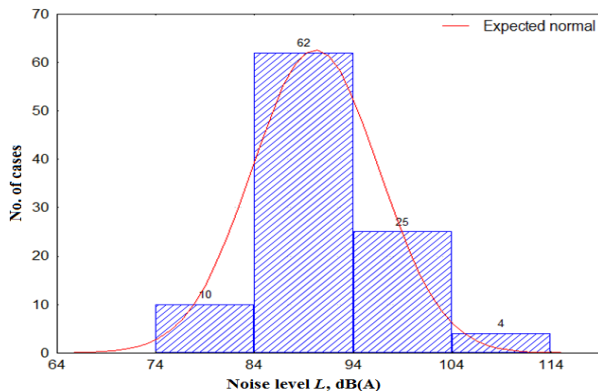


Fig. 9 Histogram of noise level distribution and the curve of expected normal distribution

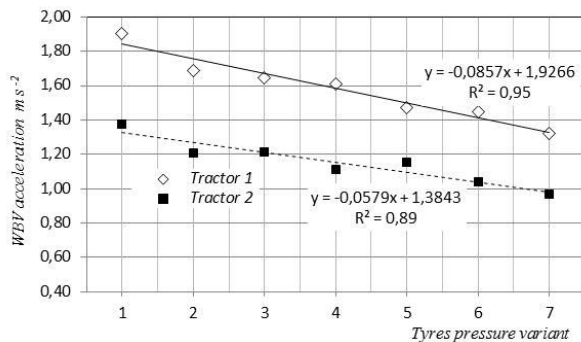


Fig. 11 Dependence of WBV acceleration from tyre pressure

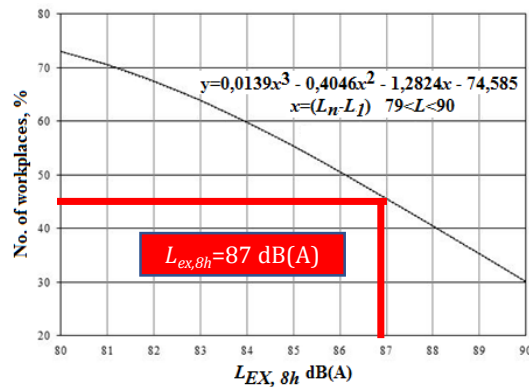


Fig. 10 Percentage distribution of workplaces of tractor drivers where particular noise exposure levels are exceeded

Vibration

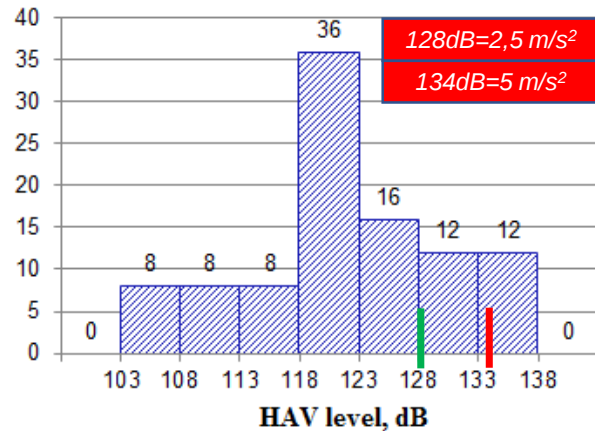
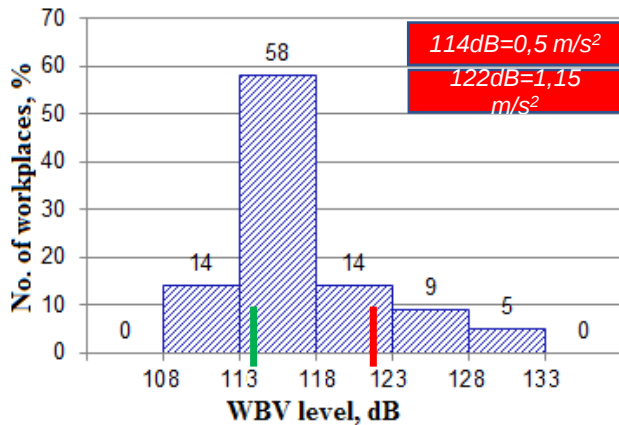


Fig. 12. Levels of WBV and HAV as a function of workplaces where particular level is exceeded

- Vibration acceleration values:
 - **WBV** – 80 % exceed the action value of 0,5 m/s² and 35 % the exposure limit value;
 - **HAV** – 33 % and 10% respectively.



Thank You