

Animal welfare management in organic and low-input outdoor production systems - PIGS

PPILOW Autumn School

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Assisi



Contact: charlotte.vandenhole@ilvo.vlaanderen.be

Introduction

- Research institute
- Technical Institute
- Citizen/Practitioner
- SME
- University/Higher education



'Welfare and behaviour of farm animals'



Presentation outline

- **Intro to pig welfare in organic and low-input outdoor production systems**
 - General
 - Opinions by pig farmers (PPILOW)
- **Tools to help the farmer - 2 examples**
 - PIGLOW app (PPILOW)
 - Online lameness training ILVO

Poultry and Pig Low-input and Organic production systems' Welfare

Intro to pig welfare in organic and low-input outdoor production systems - General



Intro to pig welfare in organic and low-input outdoor production systems – General “Outdoor basic”

Advantages	Disadvantages/challenges
Suitable for non-temperate climates	Consumer expectations often not met
Less land needed	Less natural behavior possible
Individual monitoring	Higher animal density (~health)
Controlled environment	Higher building and energy costs



Intro to pig welfare in organic and low-input outdoor production systems – Intermezzo

Expression of **natural behavior**, e.g.:

- Rooting
- Wallowing
- Play and other social interactions
- Exploration
- Nest building
- ...Certain health benefits!



Intro to pig welfare in organic and low-input outdoor production systems – General 'Outdoor basic'

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Intro to pig welfare in organic and low-input outdoor production systems – General 'Outdoor Year-round'

Advantages	Disadvantages/challenges
Meets consumer expectations	Climate (thermoregulation, sunburn)
Natural behavior (more space, diverse environment)	Parasite control
Low animal density (~health benefits)	Biosecurity (e.g. African Swine Fever)
Natural light	Predation
Vitamins and minerals from soil/vegetation	Individual monitoring
Lower building/energy costs	



Intro to pig welfare in organic and low-input outdoor production systems – Opinions PPILOW

*“Animals should only be kept when the 5 freedoms can be fulfilled, expression of **natural behavior** is very important. To some extent, the animal should be able to do as it pleases and the housing should be enriched with material that is interesting to the animals.”*

*“Allowing animals to live their life the way they would in **nature**.”*

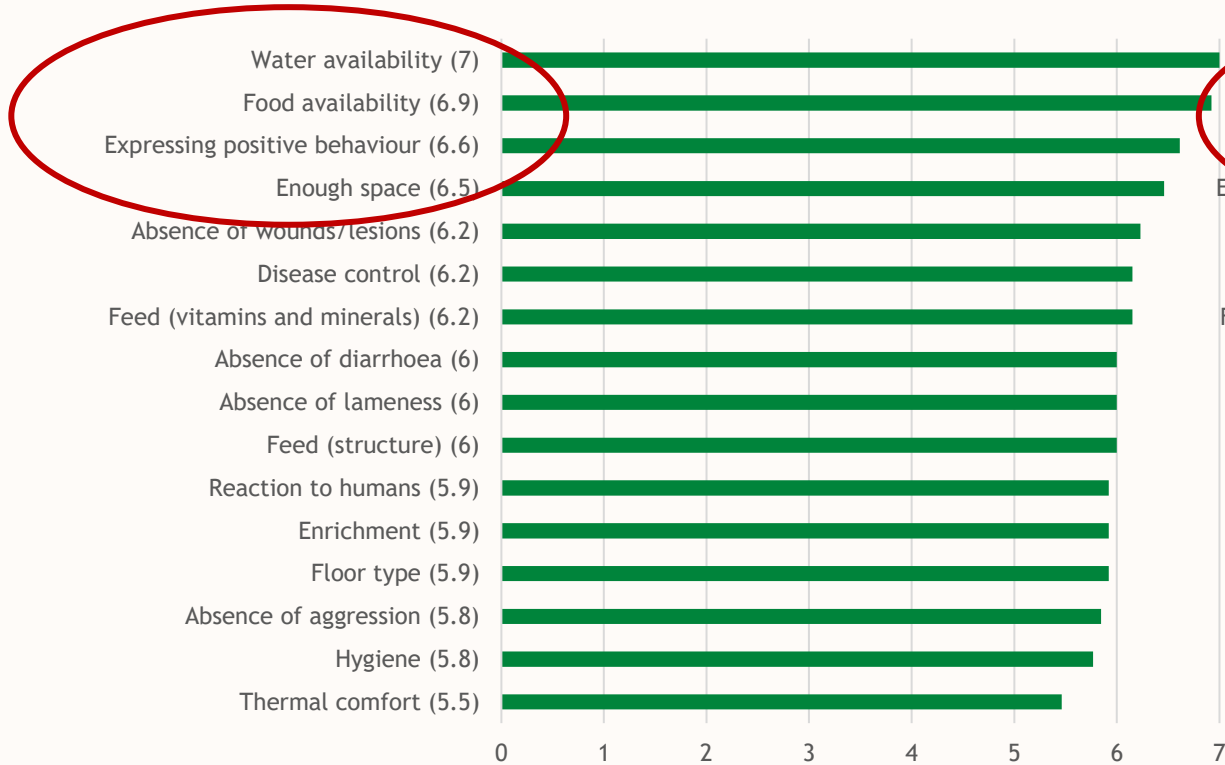
*“Healthy animals that need no or little antibiotics, that have space, rest, little to no stress and are able to express their **natural behavior**.”*

*“The animals are free from pain, stress, hunger and fear. The animals can express their **natural behavior** (rooting, looking for animals in the soil, creating their own resting space, running and playing with each other) and are allowed to grow naturally without the addition of growth hormones, preventive courses of antibiotics etc.”*

*“A life as close as possible to the ethological and physiological needs of the species. In the case of pigs, **a life modeled on those of wild boars**. The last day is also very important but no more than all the days spent on the farm.”*

Intro to pig welfare in organic and low-input outdoor production systems – Opinions PPILOW

Importance of welfare aspects

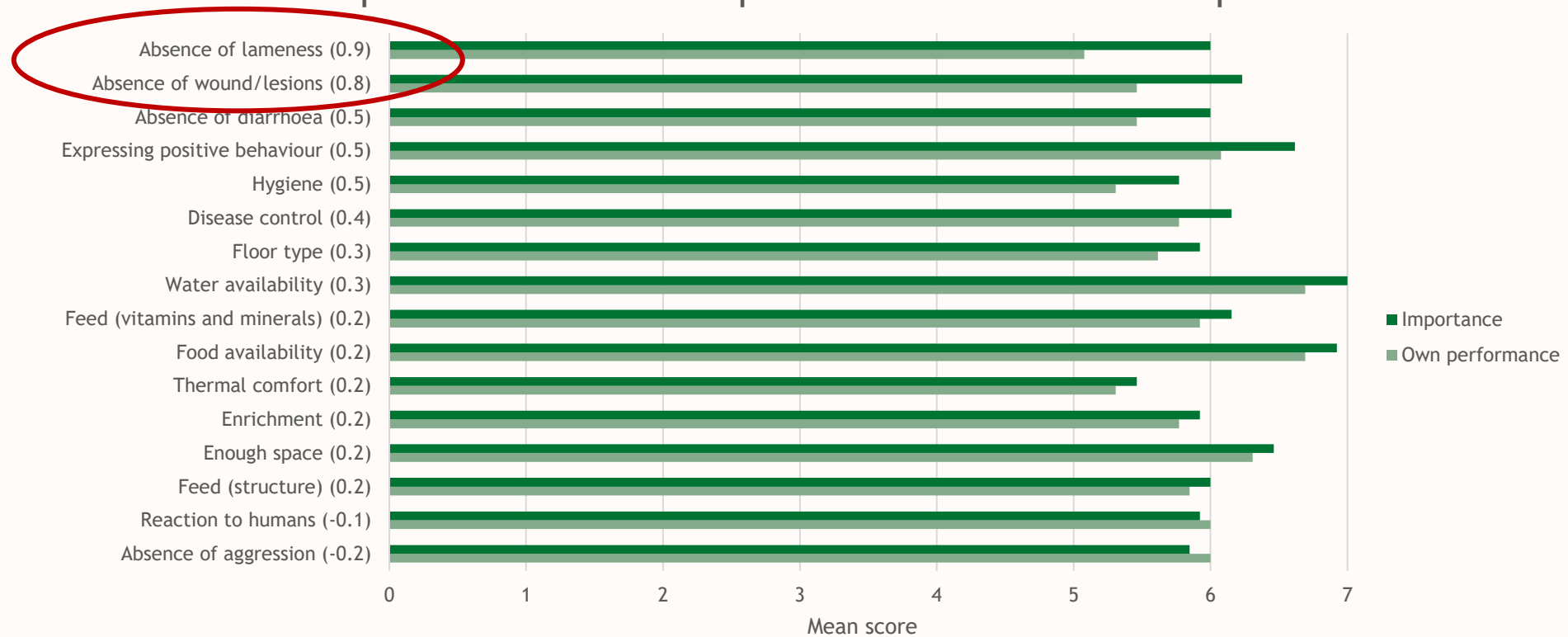


Own performance on welfare aspects

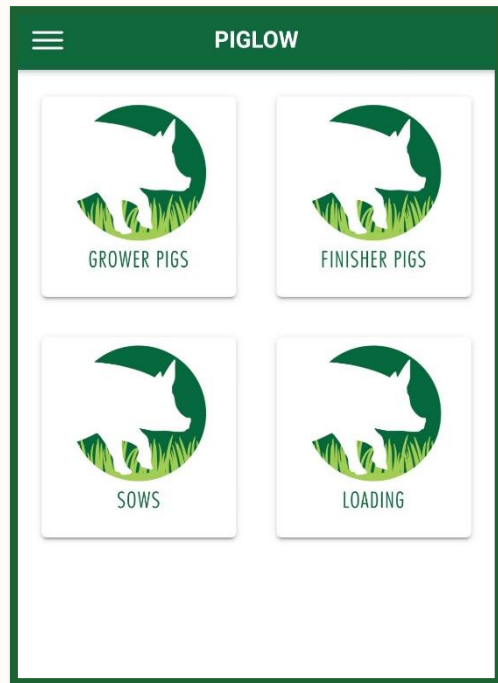


Intro to pig welfare in organic and low-input outdoor production systems – Opinions PPILOW

Importance of and own performance on welfare aspects



Tools to help the farmer – two examples



Tools to help the farmer – PIGLOW app (PPILOW)

For animal welfare assessments by farmers

Specific for free-range and organic farms

Sensitize farmers towards possible welfare issues

Available in the Google Play Store and App Store in 9 languages



Tools to help the farmer – PIGLOW app (PPILOW)



Goal: to compare welfare assessments by farmers and researchers at the beginning and end of the study

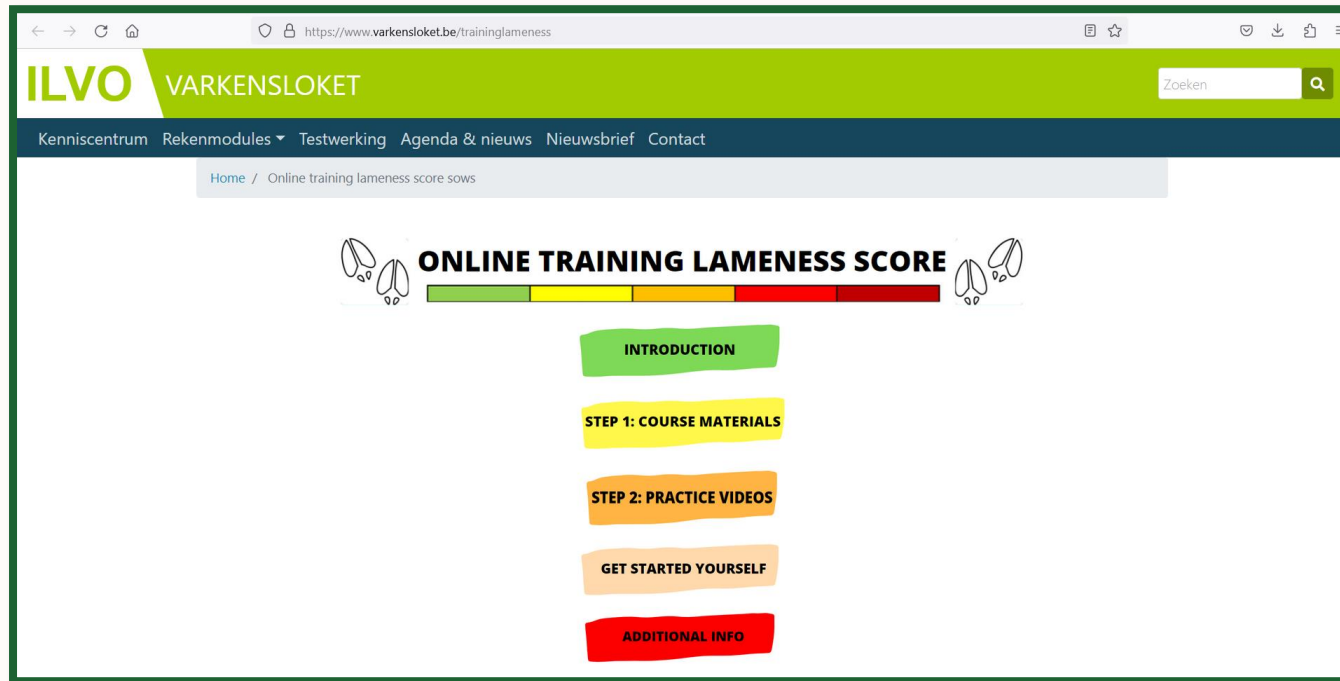
Tools to help the farmer – PIGLOW app (PPILOW)

Indicator (individual level)	Mean absolute difference farm visit 1 % farmer - % researcher	Number of different scores	Higher score
Enrichment use	21,22	11	7 Farmer - 4 Researcher
Scratches	6,48	8	1F 7R
Too small	2,44	6	4F 2R
Covered in dirt	2,25	5	3F 2R
Skin wounds	1,70	5	3F 2R
Lameness	1,30	3	1F 2R
Tail lesions	1,26	4	1F 3R
Laboured breathing	0,93	3	1F 2R
Ear lesions	0,53	3	1F 2R
Bad general state	0,43	2	. 2R
Panting	0,39	2	. 2R
Skin irritation	0,2	1	. 1R
Shivering	0,15	1	1F .

Tools to help the farmer – PIGLOW app (PPILOW)

Difference in average scores for 12 welfare indicators – Farm visit 1 vs 2	Farmers	Researchers
Average score farm visit 1	0,92	1,48
Average score farm visit 2	0,96	0,96
Difference between farm visit 1 and 2	-0,04	0,52

Tools to help the farmer – Lameness training



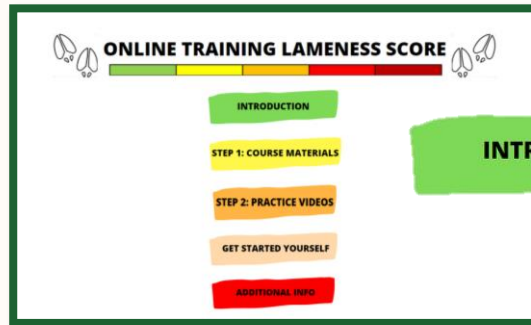
Course in lameness assessments by farmers

Conventional, free-range and organic farms

Meant to sensitize farmers towards lameness and movement issues specifically

Available at www.varkensloket.be in English and Dutch!

Tools to help the farmer – Lameness training



What?

Clinical symptom of movement problems

How?

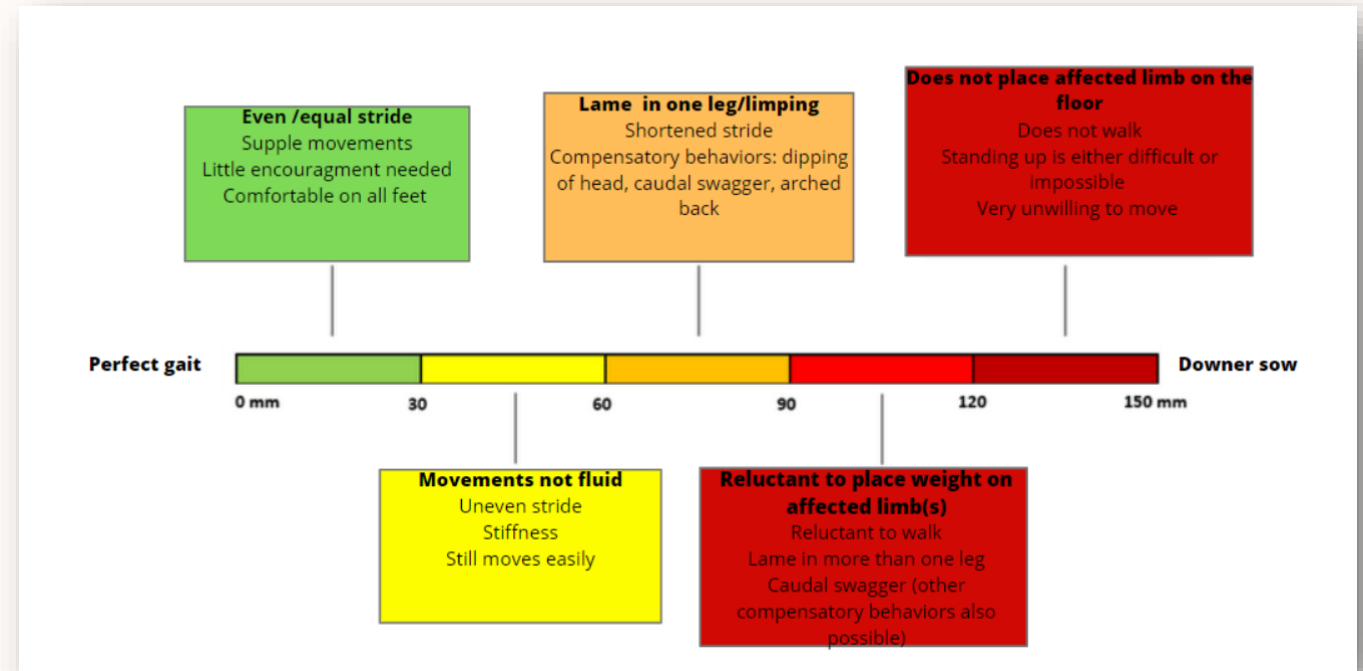
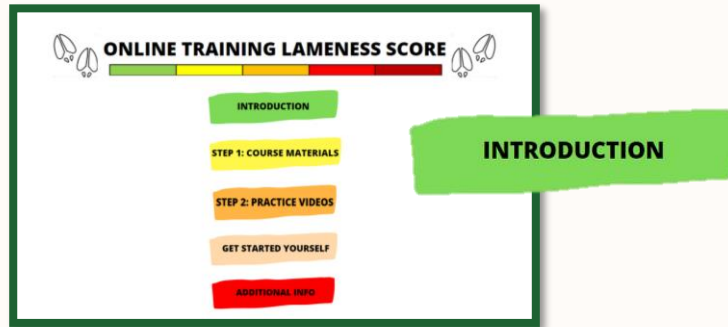
Often due to leg/claw injuries, certain diseases (e.g. arthritis)

Why?

Undermines animal welfare + economic losses

Treatments not often effective, so early detection important!

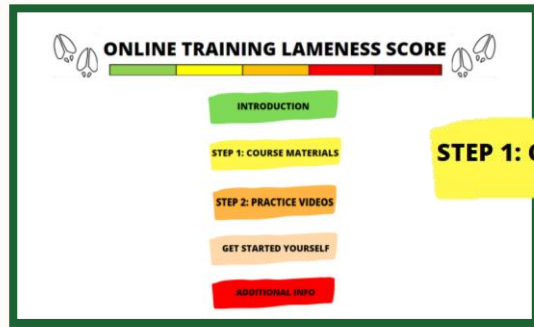
Tools to help the farmer – lameness training



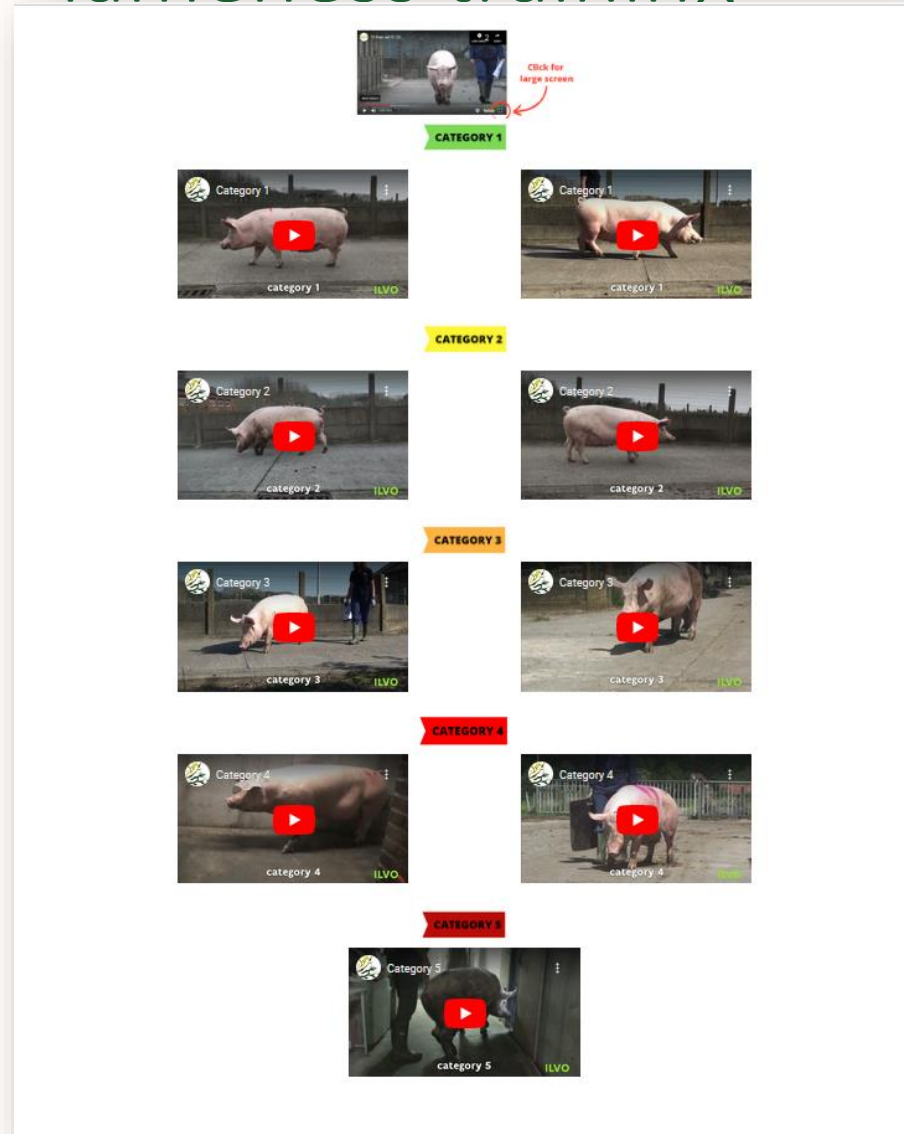
Assessment with tagged visual analog scale (tVAS):

- Accuracy of continuous scoring
- Speed of categorical scoring

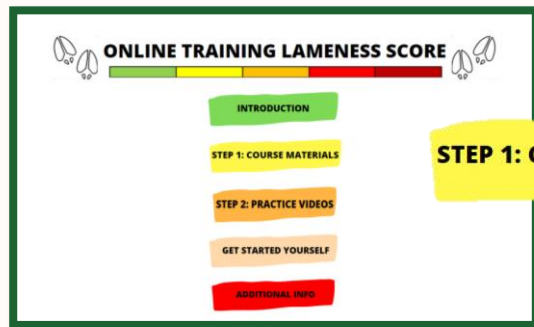
Tools to help the farmer – lameness training



STEP 1: COURSE MATERIALS



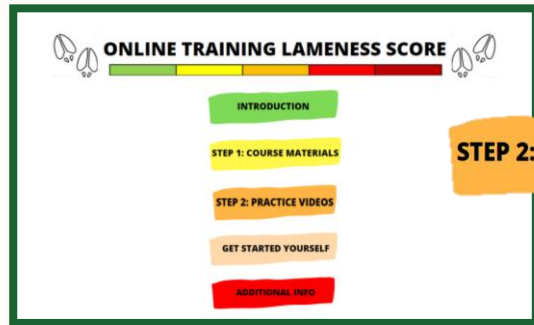
Tools to help the farmer – lameness training



STEP 1: COURSE MATERIALS



Tools to help the farmer – lameness training



STEP 2: PRACTICE VIDEOS

Video 1

ILVO TR Kreu oef 01 05

Later bekij... Delen

Bekijken op YouTube

ILVO

1

2

3

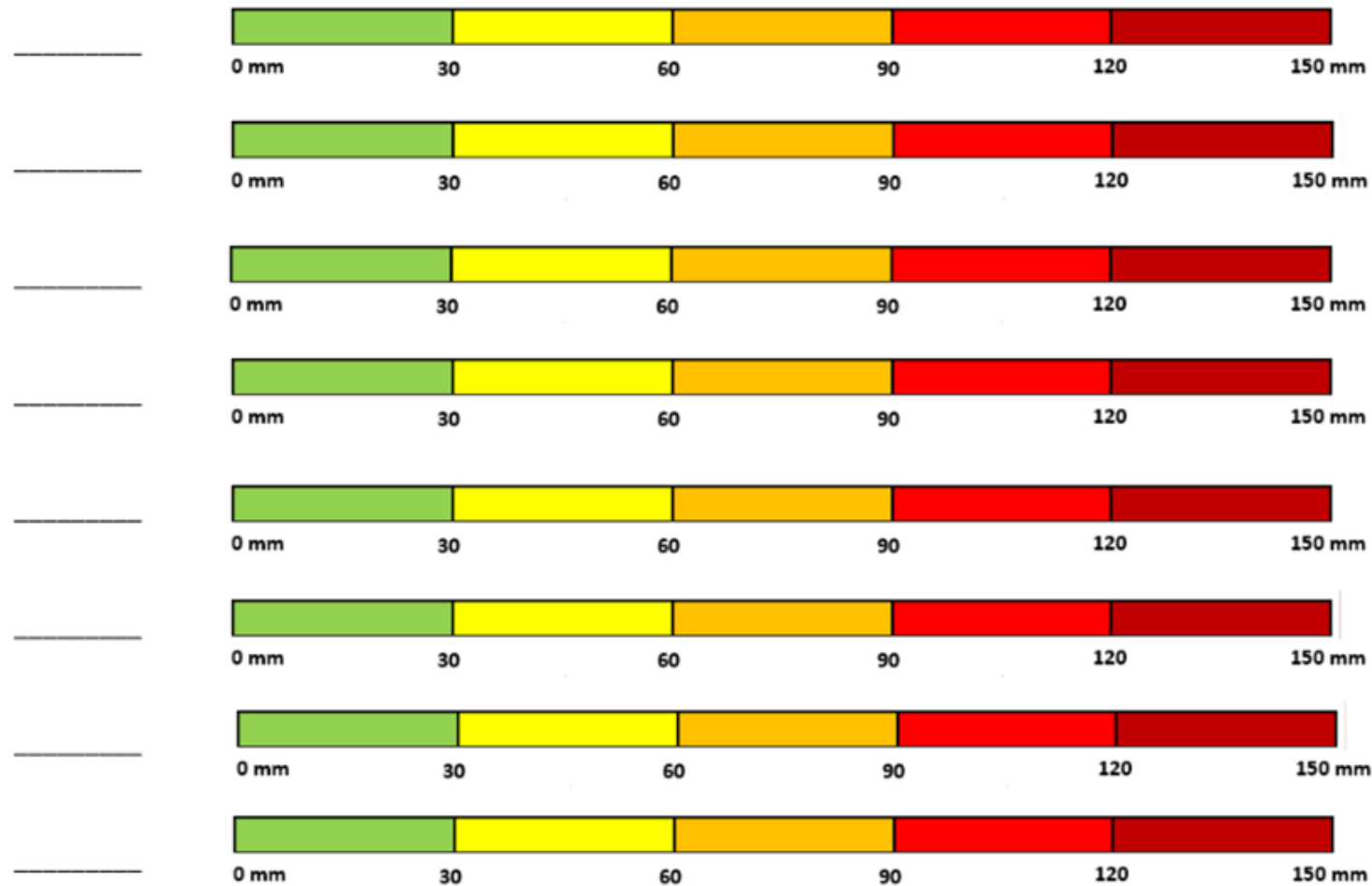
4

5

In this video you will be shown 5 sows. Score the gait of these sows by moving the score bars next to the video. After you have scored all the sows, you will also get to see our scores.

x8

Tools to help the farmer – lameness training



Take home message

Benefits and challenges ~ type of outdoor system

Individual monitoring is often difficult

Helpful tools are available...

...but collaboration between farmers and researchers is necessary!



Thank you for your attention. Questions?



References

Nalon, Elena, et al. "Comparison of the inter-and intra-observer repeatability of three gait-scoring scales for sows." *Animal* 8.4 (2014): 650-659.

<https://projects.au.dk/coreorganiccofund/core-organic-cofund-projects/power>

https://orgprints.org/id/eprint/38216/2/3_organic-pig-production-europe.pdf

<https://www.varkensloket.be/traininglameness>

<https://www.ppilow.eu/>