



REPUBLIC OF ESTONIA
MINISTRY OF RURAL AFFAIRS

Animal Welfare Technologies in Estonia

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10.11.17

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Technology in Animal Welfare

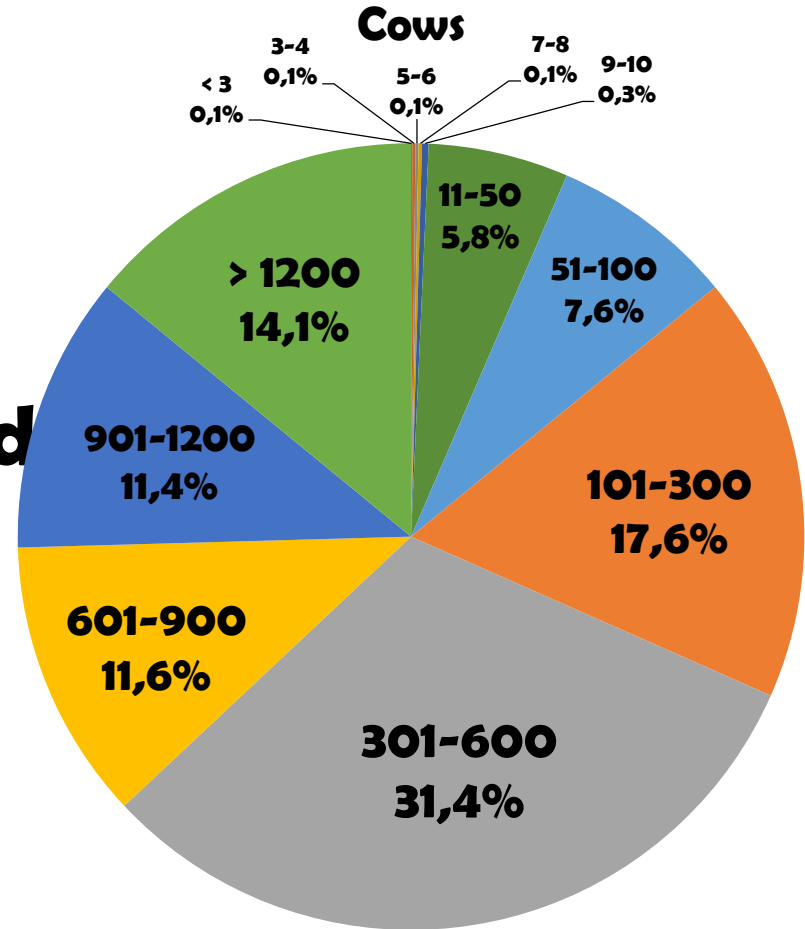
- **Public concern regarding the conditions in which producing animals are maintained has led to the need for developing methods to verify minimum animal welfare standards;**
- **As defined by the World Organization for Animal Health, “An animal is in a good state of welfare if (as indicated by scientific evidence) it is healthy, comfortable, well nourished, safe, able to express innate behaviour, and if it is not suffering from unpleasant states such as pain, fear and distress”.**

Technology in Animal Welfare

- **Assessing welfare in large groups of animals, to be able to detect potential welfare risks and to control or minimize its impact is difficult;**
- **Current developments in technology and mathematical modelling open new possibilities for real-time automatic monitoring of animal welfare and health;**
- **New technological innovations are potentially adaptable to commercial poultry, cattle, sheep, etc.**

Herds in Estonia

- **585 herds**
- **82 827 dairy cows**
- **31% in 301-600 herd**
- **37% in >600 herd**



Dairy Comp 305

- **Complete herd management software**
- **Information is in one location, easily accessible and comprehensive**
- **Data entered include standard events such as fresh, bred, pregnant, dry and sold cows**
- **Health events such as mastitis, ketosis and milk fever; prostaglandin shots, vaccinations**

Dairy Comp 305

- **Vet list – helps decide who needs to be checked and when**
- **Other work lists – who is in heat, who needs to be dried off and so on**
- **Data can be easily exchanged with the veterinarian or consultant**

Dairy Comp 305

- **Health treatment tracking**
- **Activity and to-do lists**
- **Synchronization & breeding lists**
- **Semen inventory**
- **Heifer management**
- **Pedigree tracking**

Dairy Comp 305

- **In-depth herd information analysis**
- **Common database with Advisor**
- **On-site technical support**
- **Analyse daily milk weight data**
- **Analyse parlour efficiency data**
- **Analyse cow activity data**
- **Analyse herd data**

X-NIR feed analyzer

- **Hand held analyzer for forages and grains**
- **Measures the % of Moisture (dry matter), Starch, Crude Protein, ADF, NDF, Ash and Crude Fat of different feeding materials in few seconds**



<http://www.dinamicagenerale.com/x-nir-analyzer>

X-NIR

- **Minimizes feed refusal and reduces daily feed cost**
- **Lower management costs due to:**
 - **Quick and easy setup**
 - **Real time results**
 - **No need of consumables to perform analysis**
 - **Reliability**

[NIR Families]

Across the World

[Global]

Corn Silage
Dairy Cows TMR
Dry Alfalfa Hay
Dry Grass Hay

Grass Silage
High Moisture Corn
Soybean Flour

[North America]

Alfalfa Haylage
Barley Silage
Citrus Pulp
Corn Gluten Meal
Corn Stalks
Cotton Seed Meal
Dry Corn Distillers
Dry Corn Stalks
Grass Mountain
Green Alfalfa
Green Grass
Green Maize

Hydroponic Grass
Oat Hay
Oat Silage
Snaplage
Sorghum Silage
Tropical Hay
Wet Beet Pulp
Wet Brewers Grain
Wet Corn Distillers
Wet Corn Gluten
Wet Grain Distillers
Whole Cotton Seed

[Europe]

Alfalfa Haylage
Barley Grain
Bran
Corn Germ Flour
Corn Gluten Meal
Corn Grain
Dry Beet Pulp
Dry Corn Distillers
Dry Grain Distillers
Green Grass
Green Maize
Green Part of Maize
Green Rye
Green Triticale

Olive Husk Black II Phases
Olive Husk Black III Phases
Olive Husk II Phases
Olive Husk III Phases
Olive Paste
Olive Paté
Rapeseed Meal
Rye Silage
Semolina Flour
Sorghum Silage
Soybean Grain
Tribicale Silage
Wheat Grain
Whole Wet Grain

[CIS]

Soya Oilcake
Sunflower Oilcake
Sunflower Meal

[China]

Leymus Chinensis
Wild Grass

[Turkey]

Cotton Seed Pulp
Pellet
Sunflower Seed Pulp

[South America]

Corn Grain
Sorghum Silage
Sugar Cane
T.M.R. High Protein
T.M.R. Low Protein
Wet Corn Gluten
Wheat Grain

DTM Suite

DTM is a feeding management software developed with farmers for farmers who wants to increase efficiency and farm performance.

User-friendly interface, track feeding process with reports, graphs and PDI on your mobile, make better decisions



DTM Suite

- **Accurate control of feed costs, dry matter intake and refusal management**
- **All processes are traceable, starting from raw material storage up to ration quality control/check**
- **Full control of feeder(s) work**
- **Accurate control of operations means more productivity and financial benefits for the farm**
- **Control stock and purchasing planning**
- **Feed Efficiency ratio (quantity of milk per cow**

DrugWatch

- **Recording and using disease data**
- **Has broad powers to protect/enforce appropriate drug use**
- **Keeps inventory**
- **Reports**
- **Works with Dairy Comp 305**

Foot sensors

- **Tracks movement**
- **Sends signal when the animal starts limping**
- **Gives opportunity to intervene**
- **Early treatment**
- **Better animal health and welfare**
- **Better feet condition**



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Thank you!

References

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