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AGRICULTURE & INNOVATION

Biosecurity at farm level - challenges for innovation

Improved biosecurity aims to safeguard and even promote better animal health, which in turn leads to lower medication needs, higher performance and better prices for the products

Biosecurity is the combination of all measures to reduce the risk of introduction and the spread of diseases in a herd, a region or a country. Biosecurity at herd level is split into external and internal biosecurity. External biosecurity deals with all measures to prevent diseases from entering and leaving the herd. Internal biosecurity is the set of measures to prevent the spread of diseases in the herd. The choice of biosecurity measures may need to be adapted to the species, production stage, and size of the facility.

Examples of external biosecurity measures are:

- ▶ Cautiously purchasing animals and sperm to avoid introduction of diseases
- ▶ Avoiding contact between animals from different farms
- ▶ Careful management and storage of dead animals

Examples of internal biosecurity are:

- ▶ Good separation and management of sick animals to avoid the spreading of infections
- ▶ Clear separation of animals of different age groups
- ▶ Clear division between animal groups and strict working process to minimise disease spreading

Biosecurity measures are fundamental to every animal health programme. They are based on the principle of avoiding direct and indirect contact between groups of animals and reducing the general infection pressure. Therefore, biosecurity measures are grounded in knowledge on disease transmission processes"

- Jeroen Dewulf, professor in veterinary epidemiology at Ghent University -

Highlights from the EIP-AGRI workshop on biosecurity

High potential measures

For several measures in the cattle, pig, and poultry sectors, the workshop participants discussed the estimated levels of application, the expected efficacy and rate of return on investments. There appeared to be considerable differences between the measures. However, some measures are very effective and show a high return on investment, but they are not yet widely applied.

Examples of high potential measures are (see workshop report for a full overview):

- ▶ A clear separation of the farm into a clean and a dirty area
- ▶ Proper vehicle cleaning before entering the premises
- ▶ Less contact between animals of different ages/categories/species/health statuses and with wild fauna
- ▶ The 'all-in/all-out' principle, used notably in poultry farming
- ▶ Correct cleaning and disinfection

Needs on knowledge exchange and demonstration

- ▶ Cost/benefit ratio analysis and data on biosecurity measures, based on regional data
- ▶ Social aspects including coaching, motivating and effective communication
- ▶ Best practices on operational procedures and monitoring of the biosecurity status
- ▶ Methods for quick assessment of biosecurity levels and for identifying improvements
- ▶ Effective measures for disease transmission routes
- ▶ Legislation and complying with regulations and standards
- ▶ Biosecurity throughout the chain: who does what in which part of the chain

Other opportunities

- ▶ Joint initiatives to make decisions to improve biosecurity in farms. The workshop report describes examples of innovative **rodent control in Spanish pig farms** and **control of Bovine Tuberculosis in Dordogne, France**.
- ▶ **Test and improve your biosecurity level with a free online tool** – Ghent University in Belgium has developed a free online scoring system in several European languages that assists farmers in assessing the level of biosecurity in their pig or poultry. Through a questionnaire, a report is automatically produced that describes the level of internal and external biosecurity of the herd. The report also relates the outcome to country-specific averages. In this way, farmers and herd advisers or veterinarians obtain an objective insight into their current biosecurity situation which can help to identify the aspects that need to be improved.

More information

Workshop webpage	Focus Group Pig husbandry	EIP-AGRI brochure Reducing antibiotics in pig farming
Workshop report	Press article	

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