



Disseminating Innovative Solutions to Antibiotic Resistance Management

General

#StudyMonday

Join the free online course *Effective Livestock Production with Low Use of Antibiotics* [here](#).

On the 18th November 2019, European Antibiotic Awareness Day, the European Court of Auditors published their study on antimicrobial resistance. Learn about the EU's 'One Health' approach by [reading their report](#).

Alternatives for antibiotics are available with beneficial effects. However, there is a lack of information on their mechanism of action, efficacy, advantages and disadvantages of their applications in the field. [Read more here](#).

#QuestionTuesday

#ExternalBiosecurity: Test your knowledge level by taking [this quiz!](#)

#StoryWednesday

Veterinarian Catherine Cavarait from the West of France appreciates that reducing antibiotics and improving the health of a farm is a complex balancing act requiring attention to various aspects from biosecurity to animal wellbeing. Read her story [here](#) (in French).

The 'Ecoantibio' plan is a French government initiative that was created in order to reduce the use of antibiotics. The first round was a great success, as the objective was to reduce by 25% in five years, however nearly 40% reduction was achieved. The government is now launching Round 2.



#MakeItEasyThursday

As part of World Antibiotic Awareness Week, the World Organisation for Animal Health (OIE) released a set of five 'only' rules for the responsible handling of antimicrobials by animal owners:

1. Only use antimicrobials when prescribed by a veterinarian
2. Only use when needed: antimicrobials do not cure every infection!
3. Only obtain antimicrobials from authorised sources and retailers
4. Only use the prescribed dosage and follow length of treatment and withdrawal period
5. Only use antimicrobials when associated with good animal health care

This pest prevention checklist offers great tips for **#ExternalBiosecurity**:

1. Hygiene is very important in and around your farm. Use lockable waste containers. This makes your farm less attractive to pests.
2. Store feed in polyester silos so that food is not accessible to pests.
3. Maintain the farm well.
4. Clean up feed waste immediately to minimize pest risk.
5. No thicket around the housing in a radius of 15-20 metres - pests can settle there.
6. Close/impede access to animal housing as much as possible e.g. put mesh in the ventilation ducts so that mice and birds cannot enter.



Pigs



#StudyMonday

This article explores the transfer of swine pathogens which use multiple routes of transmission, e.g. porcine reproductive and respiratory syndrome virus (PRRSV). Will all indirect transmission of pathogens be avoidable with standard biosecurity measures?

#ExternalBiosecurity: This cross-sectional German study (2018) found an association between the level of biosecurity on pig farms and the amount of antimicrobials used. Farms with low treatment incidence had better external biosecurity practices for personnel and visitors. The overall conclusion: active improvement of biosecurity measures could be a promising alternative to reduce antimicrobial usage at herd level.

#StudyMonday

In Canada, they have eliminated the preventative use of Category I antibiotics in 2014. Since then, the Canadian chicken industry is no longer permitted to use them. Antimicrobial drugs are ranked based on the drugs' importance to human medicine, ranging from Category I drugs, which are essential for the treatment of serious bacterial infections, to Category IV drugs which are not used in human medicine. Find out more here.

#StoryWednesday

#Biosecurity: In avian farming, biosecurity is key to help reducing antibiotic use and improve sanitary status on farms.

Watch some testimonies from the field.

#MakeItEasyThursday

Efforts to achieve reduced antibiotic usage in pork production involve a multidisciplinary approach involving genetics, health management, building design and operation, animal husbandry and nutrition.

- At the top of the list should be enhanced building hygiene, including better biosecurity. Reducing the exposure of pigs to pathogens is crucial to success.
- Diet formulation and composition are also key components of reduced antibiotic systems because feed can predispose pigs to digestive upset and serve as a vehicle for the delivery of products that offer some degree of protection to the pig.

Find out more here.

#Biosecurity: The Biocheck newsletter from Jeroen Dewulf showed some tips for optimal farrowing house management to give piglets a good start, amongst others:

- Limit mixing of litters as much as possible, and when necessary, do it no later than day four after farrowing
- Minimize handling of piglets to prevent stress and transmission of germs
- Thoroughly clean and disinfect equipment used to treat piglets between every litter

Poultry



#MakeItEasyThursday

#Biosecurity: How to apply European regulations for biosecurity on small poultry farms? This guide (in French) explains the areas to create and measures to take to ensure biosecurity.

#Biosecurity: This resource (in French) helps free range farmers to assess their biosecurity status

Dairy Cattle



#QuestionTuesday

How has a dairy farmer slashed their antibiotic use by nearly 30%? The answer can be found [here](#), with another example [here](#).

#MakeItEasyThursday

#Internal biosecurity: This [video](#) outlines a 5-point plan to control digital dermatitis.



#StudyMonday

This [short article](#) explains the heifer vaccination program as the foundation of disease control in the lactating cow herd. Consult your veterinarian for specific directions and vaccination protocols, including boosters. Modified live vaccines are recommended but directions must be adhered to for safe use.

Farmers' perspective: [this study](#) concluded that structural limitations faced by farmers, rather than lack of information, impose constraints to further limiting antibiotic use in Sweden. Overall stricter and more uniform global regulations on antibiotic use in animal farming could be an effective measure for reducing antibiotic use.

#Biosecurity: Farmers' perspective: [This study](#) showed that, in general, important biosecurity aspects were recognized by farmers. Despite this, factors limiting adoption of biosecurity measures were present.

#Biosecurity: [This study](#) highlights regional-, age-, and herd-size- related differences in the implementation of biosecurity on dairy farms in Ireland. Biosecurity is a cornerstone of disease control and suitably designed and demographically-relevant education programmes are required to ensure optimal farmer participation in its implementation.



Biofilm is much more than organic matter or a pile of muck. Under a #OneHealth scenario the biofilm issue is a key priority to limit spread of #AntibioticResistance

CoP Activity

Current Members: 316



1 december 2019

Hey guys! DISARM looks like an awesome initiative. My main research interest is the application of bacteriophages as an alternative or complementary course of action instead of antibiotics throughout inland or aquaculture animals. If you are interested in collaborations or learning more about bacteriophages hit me a message. Cheers!!

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Unitec Srl

14 November 2019

✓ Liked ▼

Yesterday we launched at National Pig Conference a Click&Check Interactive Map for Vehicle [Biosecurity](#) which is available at www.biosicurezzaweb.net.

We are happy to share it with the DISARM Community hoping it may contribute to disseminating the culture of disease prevention in animal production.