

### TARGETED APPLICATION OF ALTERNATIVES TO ANTIBIOTICS

WP4 / Poultry / Targeted application of alternatives to antibiotics

# î

#### HEALTHY LIVESTOCK

Using antimicrobials in animals contributes to the rise and spread of antimicrobial resistance. By doing so it reduces the availability of safe and effective medicines against infectious diseases for both humans and animals. HealthyLivestock is a research project aiming to find ways to reduce the use of antimicrobials in livestock by improving the health and welfare of the animals.





### TARGETED APPLICATION OF ALTERNATIVES TO ANTIBIOTICS

The wish to reduce the use of antimicrobials in order to reduce the emergence and spread of antimicrobial resistance has encouraged increased attention on farm biosecurity and farm management improvements. At the same time the appraisal, development, and use of non-antibiotic alternatives such as organic acids, exogenous feed enzymes (e.g., xylanases, glucanases etc.) probiotics, prebiotics and herb-based mixtures, has grown.

However, most of such use of additives do not specifically target health issues encountered on a specific farm.



#### HEALTHYLIVESTOCK ON TARGETED APPLICATION OF

#### ALTERNATIVES TO ANTIBIOTICS

The purpose of this field pilot study was to use historical fact-based information specific to each farm (covering biological performance data, health data and veterinary diagnoses and consequent interventions) to arrive at the most appropriate selection of non-antibiotic additive(s). This selection is targeted so as to best counter specific problems identified to the farm. Parameters to be monitored were, in addition to biological performance indices, the use of antibiotic treatments in terms of both number and duration.



### RESULTS

On the participating farms and over the period of the trial the number of antibitive treatments declined by 12% and the days of such treatment by 21%. These results together with data of the other changes in the technical performance and in the costs of antibiotics and additives have been used to calculate the overall economic impact of this practice. As baseline the average production costs of broiler farms in Greece and Cyprus have been used with a mortality rate of 4.22% and feed conversion rate of 1.65 kg of feed per kg of growth. The reduction of the mortality rate to 2.65% and the improvement of the feed conversion rate to 1.60 generated a reduction of the production costs by 3.4% (86,39 to 83.42 €cts/kg).



## TARGETED APPLICATION OF ALTERNATIVES TO ANTIBIOTICS

WP4 / Poultry / Targeted application of alternatives to antibiotics

After the introduction of the reduction of the costs of antibiotics and the increased costs due to the use of additives the final production costs of the broilers arrived at €cts 83,92/kg of live weight. At the balance the use of additives finally reduced the production costs by 2.86%.



#### WHAT CAN YOU DO YOURSELF?

HealthyLivestock survey identified that from 200 farmers in 4 different EU countries, more than 50 % of the farmers found the innovation useful and more than 55% would likely adopt it. From the economic point of view this practice can be considered highly convenient, as it both improves the productive performances of the broiler farms, and it reduces the use of antibiotics which creates ample space for the compensation of the costs of the additives.

#### To think:

- How much money you could save on antimicrobials.
- Which additives would be suitable for your farm.



If you want to know more about this topic **visit** rebrand.ly/WP4Alternatives or **scan** this QR code





the EU part of the HealthyLivestock project is funded by the EU Horizon 2020 research and innovation program under grant agreement number 773436