

# How today's animal health care is benefiting people, animals and our planet

Never before have livestock farmers and aquaculture been faced with so many challenges. Farmers today have to focus their efforts on minimising environmental impacts while mitigating climate change effects, protecting biodiversity, ensuring animal welfare and safeguarding human health. This sounds impossible, especially in confrontation with ever more critical consumers, but there are many tools and opportunities to ensure our food systems are sustainable in every way.

The animal health sector is currently at the forefront of a technological and digital transformation with breakthroughs in biotechnology, detection tools and robotics, genomic testing, and advanced vaccines, amongst others, now set to become essential tools for the sustainable future of both livestock farming and the veterinary profession. This is our **#MorethanMedicine** approach to ensuring more holistic animal health management on farms.

We believe that access to such cutting-edge advances, accompanied by the knowledge and skills to use them, will lead to an innovative, dynamic and modern profession that will attract new talent to Europe's rural areas. In order to demonstrate the varied benefits of using modern animal health products and technologies we commissioned Oxford Analytica to detail research-based findings that demonstrate the impact and value of animal health solutions in areas of innovation, one health, and sustainability. The following proof points are drawn from an extensive literature review, expert input, and the input of AnimalhealthEurope member companies. And they all demonstrate clearly why **#AnimalHealthMatters**.

**According to WOAH  
around 20% of animal  
production losses are  
linked to animal diseases**



**But animal disease doesn't just mean food loss.  
It can also mean:**



poor animal welfare



waste of feed and water



a need to use antibiotics



reduced income for rural populations



increased emissions

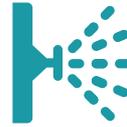


increased potential for disease transfer

# Aside from the clear animal health benefits, one of the major benefits for animals is *improved animal welfare*.



New technology replacing conventional needle vaccination, ensures **smooth and painless** intramuscular injections, **improving the vaccination experience** for both the pig and the farmer.



New administration **techniques for oral vaccines using environmental enrichment technologies** with a sprayer mean that indoor-raised pigs can self-apply the vaccine, with **100% efficacy** in eliciting a serologic response to a Salmonella vaccine.



Livestock monitoring via a camera mounted in the parlour connected to a phone app showed **reduced herd lameness from 25.4% to 13.5%** in a six-month trial, as **early detection increased from 2% to 7%**.



A **single dose** vaccine against calf scour – a common disease in dairy herds – administered to the cow prior to calving helps **provide immunity** to calves through the maternal colostrum, with a trial showing **only 3 out of 40** immunised calves exposed to coronavirus at 14 days old developed mild diarrhoea.



Sensors used to detect the chewing activity (rumination) of cows can **detect disease as much as 5 days before** clinical signs of a disease are detected.



Feeding calves from automatic feeder machines can read both feeding and activity behaviours, parameters used to detect bovine respiratory disease in calves with high accuracy at least **1 day before** clinical diagnosis.

A non-antibiotic treatment for bovine mastitis using acoustic pulse technology has demonstrated a **70% cure rate** for infected cows.



Probiotic feed additives are reducing dysbacteriosis in broilers by stabilising the gut flora, **reducing gut damage** and improving animal welfare.



Calving prediction technologies give alerts from **6 to 12 hours in advance** of calving, **reducing calf mortality** and improving fertility in dairy cattle.

Use of vaccination to reduce 'boar taint' in the meat obtained from male pigs shows **reduced aggressive behaviour** and improved animal welfare.



In indoor pig and poultry farms environmental sensors linked to automatic control systems can monitor and adjust environmental conditions appropriately, ensuring **optimal conditions at all times** and **reducing stress** factors.

An intranasal vaccine for Bovine Respiratory Syncytial Virus and Parainfluenza 3 offers a two-in-one easy to administer vaccination for common cattle diseases and showed a **decrease in mortality from 10% to approximately 4.5%**.



The use of 3D camera technology, coupled with 'machine vision' algorithms can detect warning tail posture signs with **75% accuracy** in the pig pen, alerting the farmer to stop potential outbreaks of tail biting.



Use of data captured via live video camera footage can be fed into an algorithm to warn free-range poultry farmers when birds should be kept indoors to **minimise the risk** of introducing avian influenza.

In addition to animal health and welfare benefits, today's animal health care offerings also mean **better health for people** through reduced incidence of illness, supply of safe food and a reduced use of antibiotics in farming.



New single injection vaccines against Oedema disease in pigs, also known as enterotoxemic colibacillosis **reduces disease occurrence**, thereby reducing the need to use antibiotic treatment.



Vaccination against major bacterial diseases in salmon saw Norway use only 222 kg of antimicrobials to produce 1,375,307 tonnes of fish – **160 mg of antimicrobial per tonne of fish** – in 2019, a **99% reduction** since the late 1980s.



EU control measures for Salmonella in poultry, using vaccination and improved hygiene saw a **decrease of some 50%** in the number of reported human cases of salmonellosis within 10 years of implementation.



A new diagnostic technology used for diagnosis of Q Fever is **making diagnosis easier**, leading to better management of the disease in herds as well as **better zoonotic risk management**.



New sound monitoring technology for indoor pig farms help pig farmers to **detect and respond** to respiratory disease up to **five days earlier** than conventional methods, reducing the need for antibiotic treatment.



A unique single dose antibiotic formulation against swine respiratory disease ensures pigs receive the **complete treatment** with no need to monitor for additional infection and **preventing the spread** of disease to healthy pigs on the farm, thereby reducing the need for antibiotic treatment.



Vaccines for poultry against salmonella have resulted in a **43% reduction** in the prevalence of Salmonella in poultry products such as chicken meat.

## Supporting better animal health and welfare also makes financial sense in the long-term

A 10% decrease in lameness in an average dairy herd saves around €90/cow/year.

Implementing a calving monitoring system could lead to a net return between €37 to €90 per cow per year.

The use of enzymes in animal feed can reduce feed costs by up to €5.40 per tonne of feed.

To complete the One Health benefits of today's animal health care offerings, better animal health also mean *a healthier planet* through reduced emissions from livestock, reduced use of natural resources, and reduced food losses.



Use of a dietary inhibitor feed additive, combined with other farm management techniques including improved grassland productivity and forestry sequestration, resulted in a **31.5% reduction** in associated carbon footprint.



Use of immunocastration in pigs dramatically reduces the carbon footprint of pig farming, with **8–12% less** feed and a **28kg reduction of CO2 emissions** for every vaccinated male pig produced.



Smart collars with monitoring technologies linked to a phone app help farmers to accurately identify the various stages of dairy cow fertility, filtering out any false heats, and accurately detecting **up to 95%** of real heats, improving farm efficiency and reducing milk production losses.



Preventing different types of foot lesions can reduce GHG emissions from the dairy sector, down to a **decrease of 14kg CO2e per tonne** of fat-and-protein-corrected milk per case of foot lesions such as digital dermatitis, white line disease, and sole ulcer.



A single dose vaccine for avian influenza administered to 1-day old chicks, show an immunity duration of **at least 20 weeks**, preventing the development of disease, **reducing the need for culling** and the ensuing food losses.



Preventing mastitis in dairy cows can help to decrease GHG emissions on average by **57.5 kg CO2e per tonne** of fat-and-protein-corrected milk compared with cows without clinical mastitis.



Genetic selection in dairy farming can improve environmental sustainability with a study showing the top 25% of cows with superior genetics emitting **10% less enteric methane** emissions and requiring **5% less feed**.



Scan and find our sources.

In the latest report from FAO: ***The role of animal health in national climate commitments***

Six regional mitigation case studies with animal health included as a mitigation measure estimated significant emission reduction potentials from:

**10% to 41%**

A case study on French dairy farming demonstrated using a package of animal health, reproduction, manure and genetic improvement measures results in

**10–15% reduction  
in emissions**