

The contribution animal health makes to One Health & Sustainability



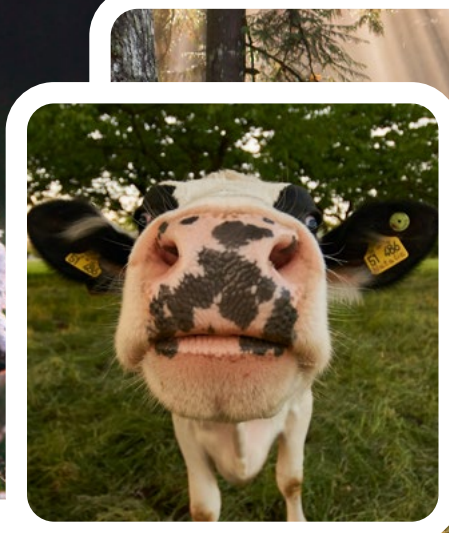


Introduction

Protecting and improving animal health and welfare not only benefits animals, but also helps to protect human and environmental health while positively contributing to societal sustainability goals. This is because we share One Health - human, animal and environmental health, which are deeply interdependent and interconnected. 'One Health' is referred to as “an integrated, unifying approach to balance and optimize the health of people, animals, and the environment” ⁽¹⁾. The animal health industry is dedicated to a One Health approach to identify and interpret problems, and to find and apply One Health solutions for a healthy balance across all three systems. Achieving this healthy balance is a key element in achieving a sustainable present and future for human and animal health and the health of the planet we share.

Sustainability is defined as “meeting the needs of the present without compromising the ability of future generations to meet their own” ⁽²⁾. For countries to strive for a better and more sustainable future for all, the United Nations in 2015 produced the 2030 agenda for sustainable development. This agenda lays out 17 sustainable development goals (SDG) as a blueprint that all 193 United Nations member states agreed on; to end poverty, ensure prosperity & protect the planet ⁽³⁾.

Healthy animals contribute to achieving at least 10 out of 17 of the SDGs ⁽⁴⁾. NOAH members' efforts in producing and marketing animal health products are pivotal in helping the UK advance and achieve One Health & sustainability. The examples identified here highlight some of the ways in which the animal health industry contributes to One Health and the nation's sustainability goals.





Licensed veterinary medicines and solutions protect public health.



Every animal should have access to a range of veterinary medicines and solutions. These can protect them from pain and suffering, help optimise health and welfare, while also playing a key role in the control and prevention of diseases. The latter is not only vital for animal health and welfare but also for protecting human health, as scientists estimate that more than 6 out of every 10 known infectious diseases in people can be transmitted from animals (zoonotic disease)⁽⁵⁾. Therefore, preventing and treating infectious diseases in animals prevents and breaks the transmission cycle to people, thus protecting human health.

Case Study: Salmonella in poultry and how animal health products provided a solution.

The problem:

Salmonella is a major One Health challenge for the global poultry industry with salmonellosis in humans responsible for severe gastrointestinal disease and major economic losses.

The UK experienced a major salmonella epidemic (1988-1998) which was responsible for over 140,000 human cases, 1,600 deaths and was estimated to have cost around £1 million in the first 8 months alone^(6, 7).



The solution:

The animal health industry has provided an effective solution to the salmonella epidemic with the availability of effective vaccinations for use in breeding and laying flocks⁽⁸⁾. An industry-led voluntary vaccination scheme began in 1998 (the British Lion scheme)⁽⁹⁾.

Since 1998 human infections have reduced dramatically; for example, the number of laboratory-confirmed cases in 1993 was more than 18,000 which fell to just 459 cases in 2010⁽⁸⁾.

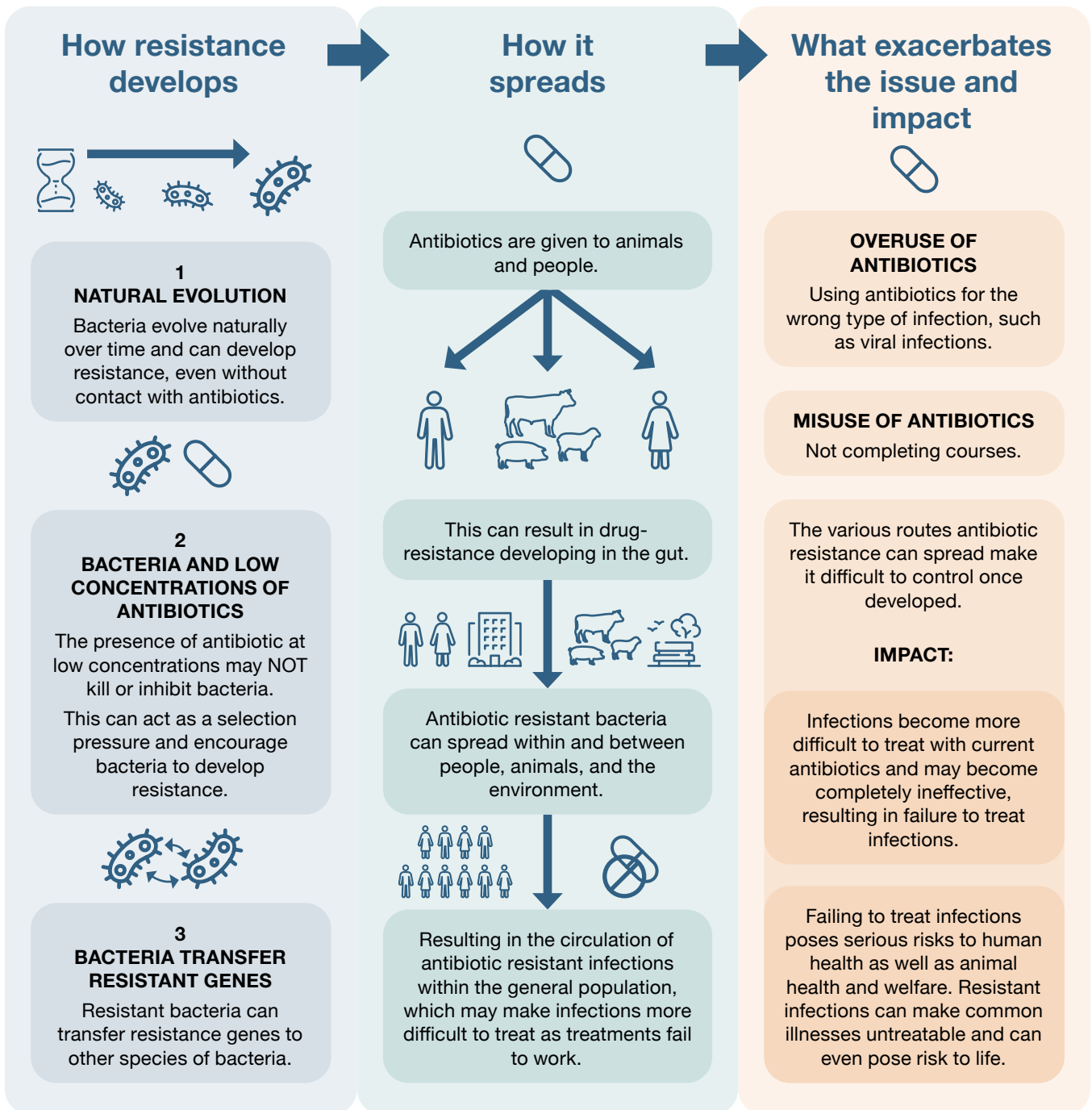
The animal health industry has secured the availability of eggs with a certified low risk of being infected with salmonella, protecting public health^(10, 11).





The animal health industry contribution to reducing antibiotic resistance.

Antibiotics fight infections caused by bacteria, by either directly killing them or making it difficult for them to grow and multiply. Currently, antibiotics are the only medicine available for treating bacterial disease ⁽¹²⁾, and many of the same classes of antibiotics are used across human, animal, and environmental settings (horticulture). However, the development of antibiotic resistance threatens the effective prevention and treatment of infections caused by bacteria.





In order to sustain the health of current and future generations, a One Health collaborative action to use antibiotics responsibly is needed to preserve the efficacy of these essential medicines. The animal health sector has been playing an active role in the fight against antibiotic resistance.



Case Study: Enzootic Abortion (Chlamydophila) in sheep - A One Health solution

The problem:

Enzootic Abortion of Ewes (EAE) caused by *Chlamydophila* is the most common cause of abortion and infertility issues in sheep in the UK ^(13, 14).

The *Chlamydophila* pathogen also poses a potential zoonotic risk to those working closely with sheep and has been known to cause abortions and stillbirths in humans ⁽¹⁴⁾.

Traditionally farmers have relied on reactive treatments to abortions with the use of tetracycline antibiotics ⁽¹⁵⁾.



The solution:

The animal health industry has offered a proactive solution to the problem by producing an effective vaccine, reducing the need to rely on antibiotics, and therefore minimising the selection pressure for antimicrobial resistance.






Reducing the disease burden in sheep also reduces the risk of transmission to people, therefore the use of vaccinations offers a One Health solution.

Preventing and controlling disease positively contributes to keeping our shared environment healthy (for more information refer to section 3).



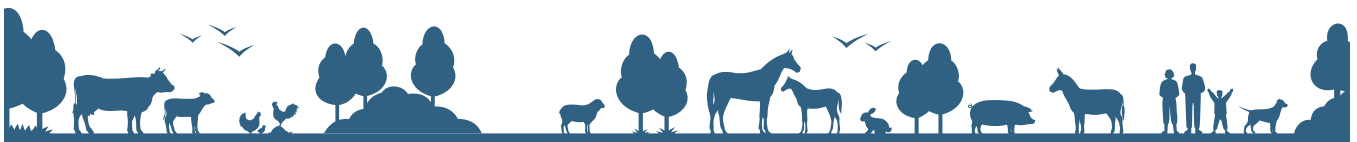
Licensed veterinary medicines and solutions protect public health.

How the animal health industry has contributed to reducing antibiotic usage.

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 The industry promotes the use of vaccines, as they prevent or reduce the development and spread of many severe diseases. As animals do not become sick, this means antibiotic treatment will often not be needed to aid recovery. NOAH has created a [Livestock Vaccination Guideline](#) to support vets and farmers in making decisions over which vaccinations are appropriate for their dairy, beef or sheep herd or flock.
- 
 Medicines such as non-steroid anti-inflammatory drugs (NSAIDs) can reduce the need for the use of antibiotics as first-choice treatment for some illnesses. NSAIDs help reduce an animal's symptoms allowing the immune system to have a chance to fight the infection, aiding its recovery naturally. If the infection persists, then antibiotics may need to be prescribed as a secondary treatment. This approach can help reduce and prevent unnecessary antibiotic use.
- 
 Advancement of new technologies, including diagnostics, help assist more accurate prescribing and rationalise antibiotic usage. Diagnostic tests are useful as they can help with an accurate diagnosis so the animal can be prescribed the most appropriate treatment for a more reliable recovery. As many infections show similar symptoms, diagnostics can help ensure that the most appropriate antibiotic is used to successfully treat the infection ⁽¹⁶⁾.
- 
 The animal health industry promotes the responsible use of medicines, this has increased awareness, improved prescribing practices and antibiotic stewardship ⁽¹⁷⁾.
- 
 NOAH has developed the [Animal Medicines Best Practice \(AMBP\) programme](#) in partnership with stakeholders along the food supply chain to improve co-ordination and consistency in approach to the responsible use of medicines. Training modules are available for dairy, beef, sheep, and pig farmers on the responsible use of antibiotics ⁽¹⁸⁾.



The animal health industry's contribution and collaborative action across the veterinary and farming sectors, for example through its work with RUMA (Responsible Use of Medicines in Agriculture Alliance), resulted in a 55% reduction of the sales of antibiotics in food-producing animals since 2014, to its lowest ever recorded level ⁽¹⁹⁾. The UK is one of the lowest users of antibiotics in livestock in Europe ⁽³⁵⁾, and usage is now lower in food-producing animals than in humans ⁽²⁰⁾. This highlights the significant efforts across the animal health sector to reduce the threat of resistance developing further, a One Health approach that protects the sustainability of antibiotics for current and future generations of people and animals. Although, huge reductions in usage can be seen in livestock, access to a range of antibiotics for prescription when they are needed remains vital to protect the health of animals on UK farms.



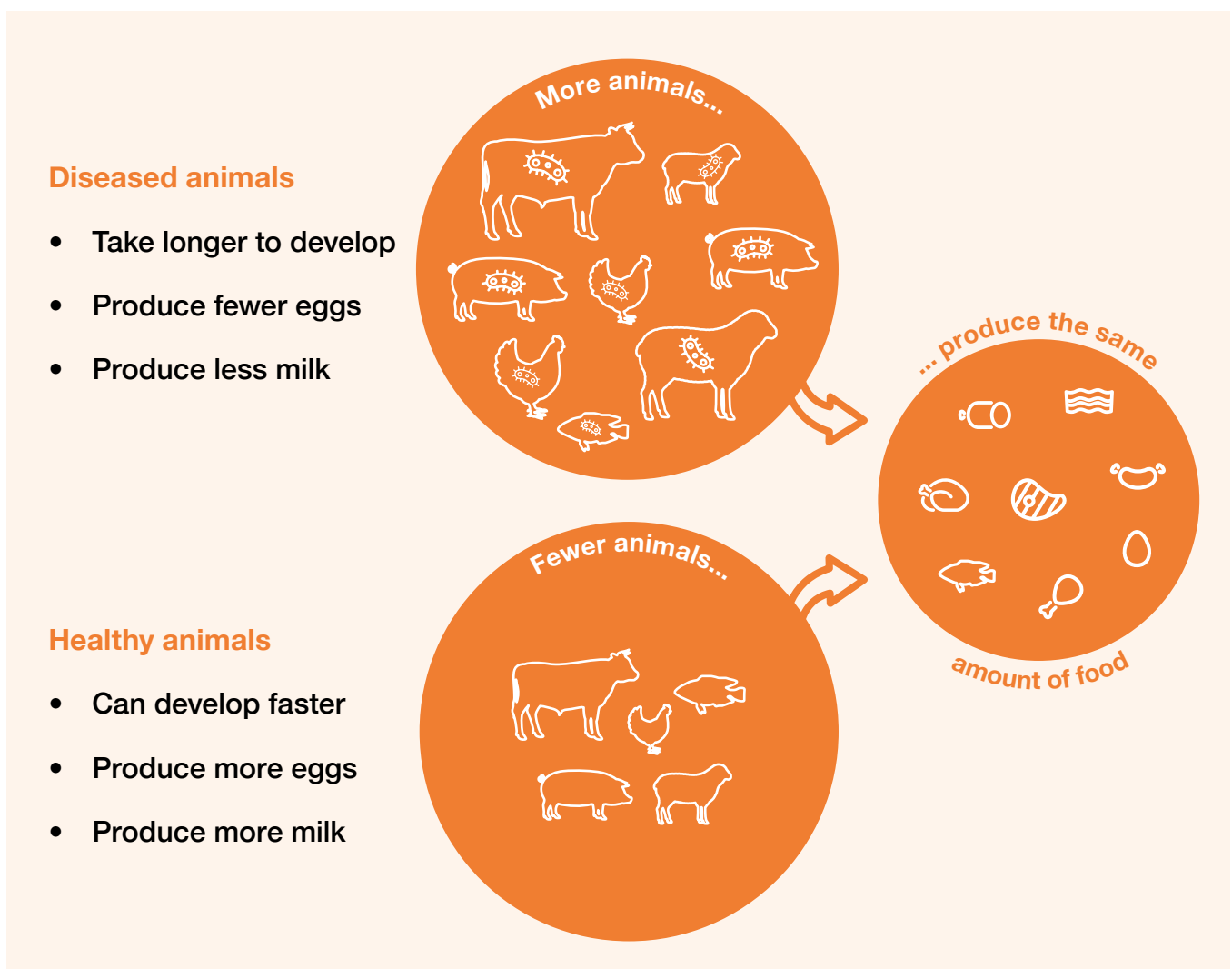
The use of veterinary medicines and solutions not only protects public health but also contributes to helping the UK achieve these sustainable development goals – look at [annex 1](#) for further information.

The animal health industry helps assure food security.

A consistent supply of good nutrition plays a key role in public health, as it correlates to improved development, the immune system's function, lowers the risk of non-communicable diseases, and helps the body meet its biological requirements to optimise health and longevity ⁽²¹⁾. Food produced from animals such as milk, eggs, meat, and offal provide high-quality protein, vitamins, and minerals for a nutritious diet ⁽²²⁾.

By 2050 it is estimated that the world will require 70% more animal protein ⁽²³⁾, as the human population is projected to increase from 8 billion to 9.7 billion along with a growth in living standards in the developing world. This will be accompanied by a steep rise in demand for animal produce to feed and nourish a growing world population.

It has been estimated that globally 20% of livestock production is lost due to disease each year ⁽²⁴⁾, impacting on animal welfare and reducing animal productivity resulting in less sustainable farming ⁽⁴⁾.



Keeping animals healthy, including by the use of veterinary medicines, ensures welfare needs of animals are met, and helps farmers ensure healthy, efficient, and sustainable production ⁽⁴⁾.

The animal health industry helps assure food security.

Case Study: Animal health industry solutions for Bovine Viral Diarrhoea (BVD)

The problem:

BVD is common in non-vaccinated cattle with estimated prevalence of 98.5% in dairy herds and 98.3% in beef herds ⁽²³⁾.

BVD causes weight loss and other symptoms that result in poorer growth rates (needed to produce meat products) and lower milk production.

BVD causes immunosuppression (weakened immune system), increasing the risk of secondary bacterial diseases and increasing the chances of cattle requiring further medical treatment like antibiotics. These secondary infections and use of antibiotics could be avoided if BVD was prevented ⁽²⁵⁾.

Cows with BVD can suffer from abortions and infertility issues. BVD can also result in animals needing to be culled prematurely.

BVD costs the UK cattle industry an estimated £162 million each year ⁽²³⁾. This figure accounts for loss of production, reduced fertility, and the loss of calves.



The solution:

The animal health industry produces and markets BVD vaccines which prevent and control BVD infection in cattle. Helping to protect animal health and welfare, reduce losses in food production and reduce antibiotic usage, benefiting One Health and sustainability of both farming and these critical medicines.








Vaccination for disease prevention

It's estimated that 1 in 5 farm animals are lost due to diseases each year, while many more animals suffer the effects of illness ⁽²⁶⁾.

The animal health industry is committed to reducing the number of animals lost to disease each year, and ensuring a consistent food supply by improving animal health through research and development (R&D). Emerging technologies and scientific advancements like artificial intelligence and new generation vaccines provide greater opportunities to predict, diagnose, prevent, and treat animal illness more quickly, accurately, and safely ⁽²⁷⁾. A wide range of vaccines have been developed for livestock diseases, with the aim to prevent and control the burden of diseases on farms.

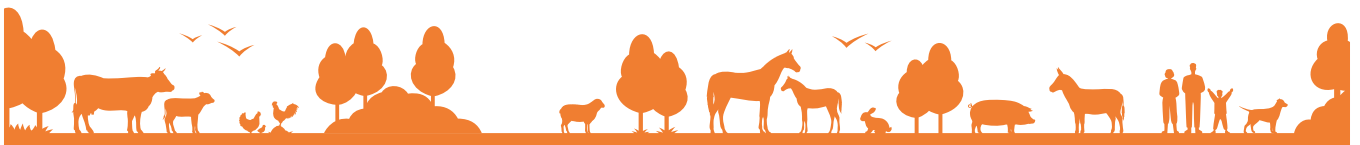
The animal health industry helps assure food security.

Examples of diseases that have vaccines available.

|  Cattle |  Sheep |  Poultry |  Pigs |  Aquaculture |
|--|---|---|--|--|
| Infectious Bovine Rhinotracheitis Leptospirosis (Weil's disease) Bovine respiratory disease (shipping fever pneumonia or undifferentiated fever) | Clostridial (multivalent vaccines): Pulpy kidney disease Lamb dysentery Struck Braxy Black disease Botulism ⁽¹⁴⁾ Other diseases: Footrot Orf virus infection (sore mouth infection) Johne's disease. | Marek's Disease Newcastle Disease Egg drop syndrome | Porcine reproductive and respiratory syndrome Glässer's disease Gilt disease (Porcine Parvovirus) Atrophic Rhinitis | Aeromonas salmonicida (Furunculosis) Enteric Redmouth disease Infectious pancreatic necrosis |

Preventing and controlling disease on farm has never been more important, in the face of new agriculture policies, evolving disease challenges, new trading arrangements and the urgent need to meet environmental sustainability goals in response to climate change. Healthier animals mean better welfare and more sustainable farming, supporting our food security. A preventative health approach for UK livestock, supported through vaccination, is an integral part of achieving this ⁽²⁸⁾.

Keeping livestock healthy is also necessary to keep the costs of production stable and food produced by animals affordable. As unhealthy animals require more resource (food, water, land, medicine) than their healthy cohorts and the impact of losing animals due to disease can result in an increase in the cost of production, having a knock-on effect to the cost of animal-based products for the consumer. Therefore, keeping livestock healthy keeps the cost of animal production down, sustaining the affordability of animal-based products, which supports efforts to enable more people to be able to access to nutritionally important products.







The animal health industries contribution to helping assure food security can help the UK achieve these sustainable development goals - look at [annex 1](#) for further information.

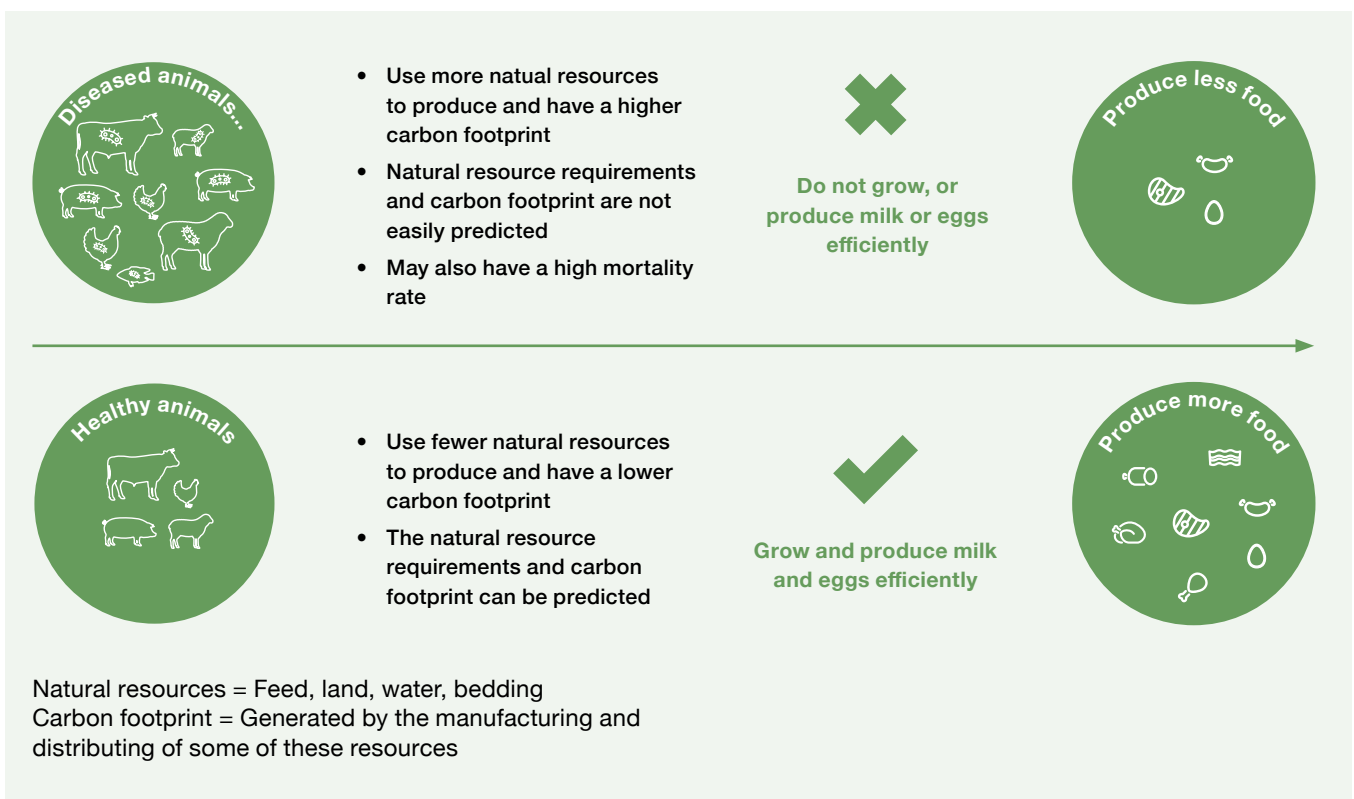
Healthy animals mean a healthier environment and more sustainable farming.

Livestock can benefit the environment as they maintain and encourage biodiversity, often in areas where other crops cannot be grown, converting forage which is unfit for human consumption, into highly nutritious animal-sourced food derived from animals. Livestock manure also helps to build healthy soil and can avoid the use of artificial fertilisers. ⁽²⁹⁾ Additionally, grazing livestock in the right conditions can potentially capture carbon into the soil, removing it from the atmosphere and storing it in a more stable form ⁽³⁰⁾. Therefore, livestock are important to maintaining ecosystem health, and their by-products benefit a circular economy.

Healthy animals support environmental responsibility:

Over the course of a year, livestock in the UK rely on natural resources, such as:

-  An estimated 90 million tonnes of dry matter from grasslands in the UK (ruminants).
-  The agriculture sector is the largest consumer of water in the UK ⁽³¹⁾. For example, as a guideline one dairy cow producing milk may need to drink 68-155 litres of water per day and one pig during fattening may consume 3-10 litres per day ⁽³²⁾.
-  Water is also utilized to grow crops that are used in animal feed.
-  85% of total land use in the UK is used for livestock and their feed ⁽³³⁾.



Healthy animals mean a healthier environment and more sustainable farming.

When animals are sick, they need additional natural resources. They take longer to grow and produce less, meaning more feed and water is needed than if they were healthy ⁽³⁴⁾. So unhealthy animals can add extra pressure on the use of natural resources and can have negative impacts on the environment.

Key message: Keeping livestock healthy by preventing and treating disease, supports good animal health to maximise productivity. The responsible use of natural resources enables us to produce environmentally responsible animal-based products ⁽³⁴⁾.

Case Study: Responsible worm control in ruminants

The problem:

Ruminants acquire parasitic infestations when grazing in pastures. Parasites inhabit the digestive tract of the animal, resulting in gastrointestinal signs, weight loss and reduced productivity. Gastrointestinal parasites can reduce growth rates by up to 30% in youngstock ⁽³⁵⁾. In adult cows, infestations can cause a 1kg loss in milk production per day ⁽³⁶⁾.










The solution:

The responsible control of worms, which includes the appropriate use of anthelmintics to treat and prevent gastrointestinal parasites in ruminants (cattle, sheep, goats) not only benefits animal health and welfare but can also improve sustainability by reducing production losses.

One study found that the prevention of parasites resulted in milk production to increase by 14% in treated cows in comparison to cows not receiving treatment ⁽³⁷⁾.

NOAH and the animal health industry are championing the responsible and targeted use of anthelmintics to prevent and reduce the development of anthelmintic resistance through supporting industry initiatives such as SCOPS and COWS.

Keeping animals healthy through the use of veterinary medicines helps sustainable farming:

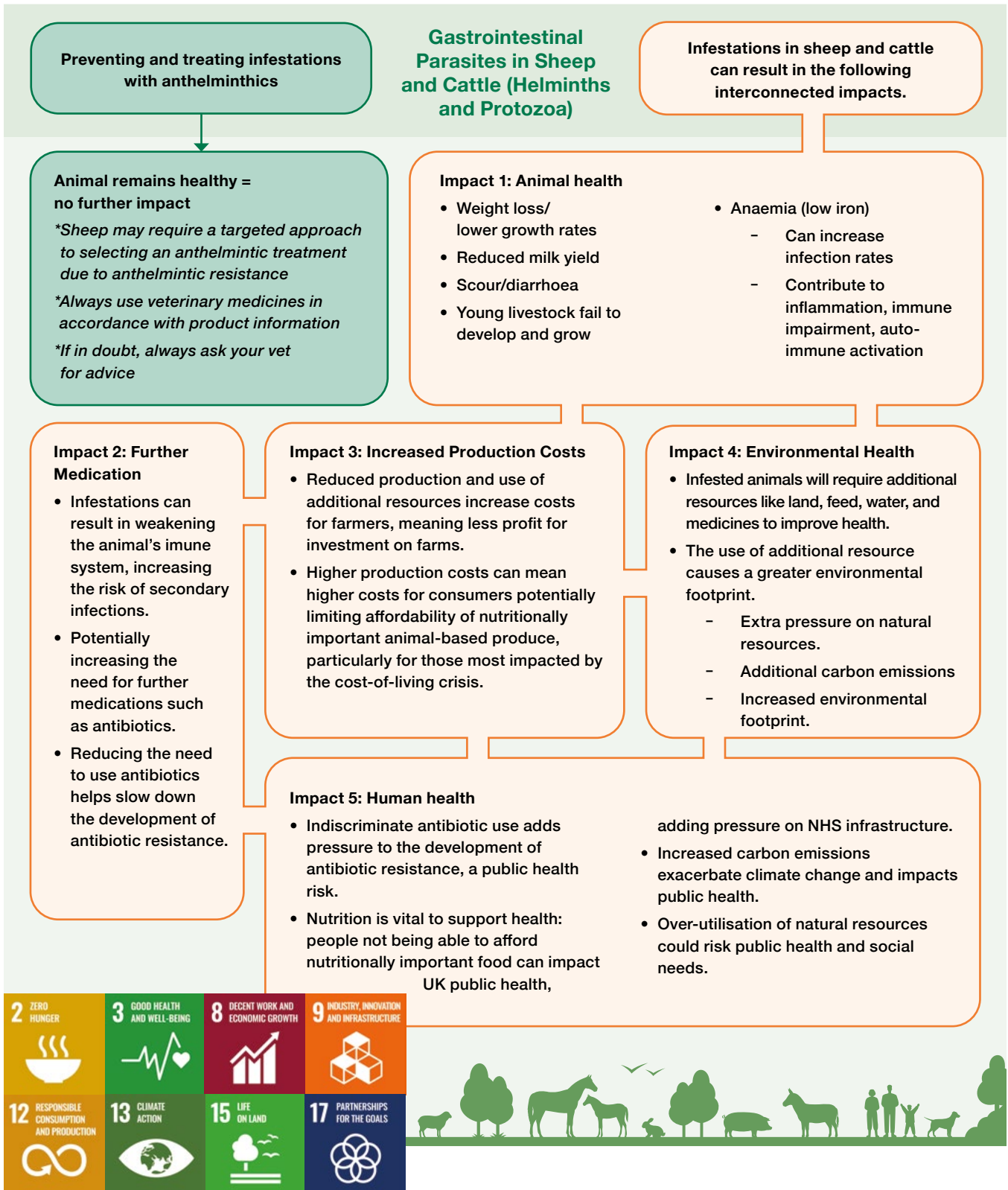
-  Responsible use of natural resources.
-  To maintain a balanced/ stable carbon footprint which helps tackle climate change.
-  Protects public health (from disease)
-  Protects and maintains the health of the general public (reducing AMR, availability nutritional food products)
-  Reduces/ stabilises production costs, so nutritionally important animal-based products remain affordable.
-  Maintains high levels of animal health and welfare standards on farms.
-  Help sustain consumer confidence in nutritionally important food from animals.

Therefore, veterinary medicines can help the sustainability of UK farming and One Health.

Healthy animals mean a healthier environment and more sustainable farming.

The image below compares the impact of gastrointestinal parasites in sheep and cattle to their healthy cohorts (green box) and the impact of infestations to One Health




Keeping animals healthy through the use of veterinary medicines helps sustainable farming:



Healthy companion animals for healthier people.

Companion animals play an important role in many peoples' lives, as they help fulfil physical, social, and emotional needs. Research shows companion animals help reduce the overall risk of cardiovascular disease and obesity via improving the uptake of regular exercise, are proven to lower blood pressure, and help reduce anxiety and depression ⁽²⁴⁾. They help assist the development of children's emotional and social skills, and research increasingly shows childhood exposure to pets is proven to drastically reduce the incidence of allergies and asthma ⁽²⁴⁾. Companion animals can also help improve people's quality of lives as they reduce loneliness, aid vulnerable people with their day-to day activities and can even help detect the onset of health issues. Due to the health benefits associated with owning a pet, 60% of doctors recommend a patient to get one ⁽²⁴⁾.

In a recent NOAH survey of 1,500 dog and cat owners ⁽³⁸⁾, the results highlight how owners view their pets and the health benefits gained from owning a pet:

-  91% think of pets as part of the family
-  78% thought pets support their mental health.
-  56% of cat owners and 83% of dog owners think their pets keep them active.



However, owners with sick animals can experience greater stress and anxiety ⁽³⁹⁾. Therefore, keeping animals healthy is essential for maintaining the human-animal bond. The animal health industry contributes to an improved quality of life for both owner and pet.

As companion animals are seen as members of the family, they often spending much of their life in close contact with their owners. As both human and animals can be affected by some of the same infectious diseases (zoonotic), the close proximity of animals and their owners' risks disease transmission ⁽⁴⁰⁾. Veterinary medicines help prevent and treat diseases in pets, and as a consequence, reduce the chances of disease transmitting to people. Therefore, veterinary medicines are important for sustaining animal and human health and welfare.

Case Study: Parasites and Pets

Preventing ectoparasites (fleas and ticks) and endoparasites (worms) in companion animals ensures their health and wellbeing.



Fleas: An itchy conundrum:

Fleas and ticks can cause persistent scratching, chewing and licking, resulting in hair loss and irritated skin that can lead to infection and allergies.

With pets and people living in such close proximity, fleas can jump from animals to their owners with the bites causing irritation and distress. This can disrupt that all-important bond between people and their pets.

Flea infestations within households can negatively impact people's wellbeing, as fleas can survive in clothes, bedding, curtains, furniture, and are often difficult to eradicate. By preventing ectoparasites in companion animal's owners can break this cycle.



 **Healthy companion animals for healthier people.**

Case Study: Parasites and Pets



***Toxocara* Roundworms: One Health in action**



Toxocara roundworm cause gastrointestinal symptoms in dogs and cats and are responsible for poor growth in puppies and kittens ⁽⁴¹⁾.

Toxocara roundworms are zoonotic and can cause toxocariasis in humans which in severe cases can cause severe disease including blindness in children.

Controlling *Toxocara* infection in dogs and cats is a shared responsibility. Appropriate worming regimes will reduce the number of infectious eggs in the environment and reduce the risk of infecting people ⁽⁴²⁾.

The use of veterinary medicines to prevent parasitic infestations in companion animals helps protect the health and welfare of both animals and humans.



Keeping companion animals healthy not only supports human health but can help the UK achieve these sustainable development goals - look at [annex 1](#) for further information.



The animal health industry helps prevent emerging disease.

The animal health industry provides essential tools in the fight against new and emerging diseases that threaten human and animal health. One area of increasing concern is the transmission and spread of vector-borne and parasitic diseases⁽⁴³⁾. A vector is a living organism that can transmit infectious pathogens between humans, animals or from animals to humans. For example, the mosquito is the important disease vector in the transmission of malaria. As climate change brings new weather patterns globally, we are seeing new disease threats emerge in the UK that were previously confined to more tropical climates.

Case Study: Bluetongue Virus (BTV) in Cattle

The problem:

One disease at risk of re-emerging in the UK is the vector-borne viral disease, Bluetongue. It is transmitted by the bite of infected midges, and affects all species of ruminants (cattle, sheep, goats, deer) but is not a risk to human health.



Before 1998 Bluetongue Virus was confined to tropical climates across Africa, the Americas, Asia, Oceania and southern Europe^(44,45).

Since 1998 it has emerged as a disease threat across northern Europe, including an outbreak of the BTV-8 strain in the UK in 2007, with climate change being blamed for the success of its transmission by biting midges⁽⁴⁶⁾.

The virus negatively impacts animal health and welfare, reduces production efficiencies, can cause reproductive losses⁽²⁹⁾, and can result in mortality rates as high as 70%⁽⁴⁴⁾.

Bluetongue causes a significant economic burden for livestock sectors with an outbreak of BTV-8 in Germany from 2006 to 2018 estimated to have cost the ruminant industry between 157–203 million Euros⁽⁴⁷⁾.



The solution:





The animal health sector reacted quickly to this emerging threat and produced an effective vaccination. The voluntary vaccination programme has proved to be so successful in preventing Bluetongue Virus that the UK has been officially free from the virus since 2011.

The animal health industry's contribution to creating and producing an effective vaccine is an important measure to minimise losses related to the disease and to potentially interrupt the cycle from infected animal to vector⁽⁴⁴⁾.

In late summer 2023 a different strain of Bluetongue Virus, the BTV-3 strain, emerged in the Netherlands with concerns over the potential for the disease outbreak to spread across Europe. Collaborative work by the animal health industry offers the potential for an effective vaccination to control this and future outbreaks.

The animal health industry helps prevent emerging disease.

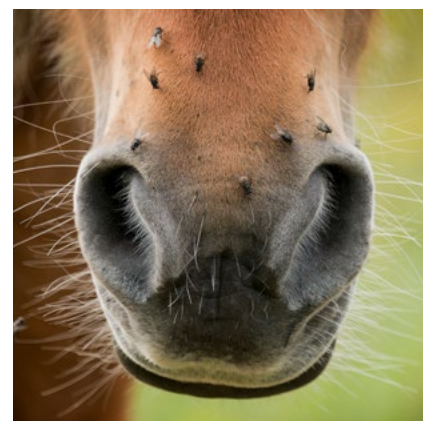
Factors that influence the transmission of new and emerging disease:

-  Movement of people and animals locally, regionally, and globally
-  The growth of human populations and societal development can result in people living in closer proximity to pets, livestock and wildlife, risking disease spill over events.
-  Ongoing evolution of viral and microbial variants
-  Change of climate conditions, partially attributable to the effects of climate change, that supports new populations and distributions of pathogens, vectors, parasites, and hosts (animals and humans).

Examples of Vector-Borne Diseases (transmitted by mosquitos, ticks, and other insects) at risk of entering the UK





| West Nile Virus | African horse sickness | Schmallenberg virus |
|---|---|--|
| <p>West Nile Virus is transmitted by mosquitoes and can replicate in a broad range of hosts but mainly causes disease in birds, horses, and people. Most infected individuals show few signs of illness, but some develop severe neurological illness which can be fatal ⁽⁴⁸⁾. The virus is present in mainland Europe and could be introduced and transmitted by vectors already present in the UK ⁽⁴⁹⁾.</p> | <p>African horse sickness is an infectious but non-contagious disease affecting all species of Equines (Horses, donkeys, mules, zebras), characterised by respiratory and circulatory impairment, it is often fatal in horses and mules ⁽⁵⁰⁾. Outbreaks have occurred in Europe, therefore there is risk of vector introduction to the UK ⁽⁴⁹⁾.</p> | <p>Schmallenberg virus can affect all ruminant species (sheep, cattle, goats), symptoms are usually mild, but the virus can reduce production efficiency and if ruminant animals should become infected when pregnant, it can lead to abortion or malformations in the foetus ⁽⁵¹⁾. The virus has previously emerged in the UK in 2012, whilst there are currently no active UK outbreaks, the threat of disease introduction remains high ⁽⁴⁹⁾.</p> |

Due to the various factors that can influence the exposure and spread of diseases, there is a continuous risk of diseases exotic to the UK emerging - **diseases do not respect country borders or species barriers!**



The animal health industry helps prevent emerging disease.

The animal health industry positively contributes to detecting, preventing, and controlling disease outbreaks through various tools:

-  Vaccines, parasiticides and other animal medicines and disease prevention solutions
-  Digital technologies
-  Diagnostics
-  Monitoring and surveillance programs

This contribution protects and sustains human and animal health, secures livestock production and food availability whilst sustaining the health of our shared environment.

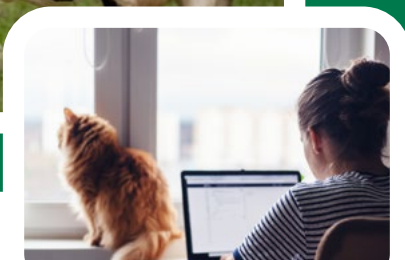


By the animal health industry preventing new/emerging disease, the industry can help the UK achieve these sustainable development goals - look at [annex 1](#) for further information.

Recommendations

So the animal health industry can continue to help meet the needs of societal sustainability challenges, some of the measures needed are as follows:

- A robust UK regulatory framework for veterinary medicines, to ensure the availability and accessibility of safe and effective medicines for all animals. Updated UK Veterinary Medicines Regulations are vital to ensure that unnecessary burdens are removed, and that the regulatory system is future-proofed to include innovative and novel products.
- For all routes of veterinary medicines to market to remain available, to ensure animal owners can readily access veterinary medicines, with appropriate prescription controls where they are needed, to maintain high standards of animal health and welfare in the UK.
- To improve collaboration and partnership between human, animal, and environmental sectors to promote finding One Health solutions to One Health challenges.
- To provide ongoing training to farmers on disease prevention and responsible use.
- To increase awareness and provide resources to pet owners to ensure veterinary medicines are used responsibly.
- To ensure funding for research and development of new medicines and solutions remain a priority in the UK.
- To improve diagnostics, surveillance, and monitoring of diseases in animals, in order to protect the UK from future disease outbreaks.



Conclusion

Veterinary medicines and solutions are important to sustain the health of animals, humans, and the environment. They enable the UK to build upon and help achieve 10 out of 17 of the global Sustainable Development Goals set out by the United Nations. Veterinary medicines and solutions do this by helping achieve sustainable farming, assuring food supply and security, by protecting the UK from new and emerging diseases and overall help protect One Health. By keeping animals healthy the industry helps the UK achieve economic viability, ensure environmental responsibility, and uphold the health of society.

Healthy animals contribute to the Sustainable Development Goals.



What are the SDGs?

For countries to strive for a better and more sustainable future for all, the United Nations in 2015 produced the 2030 agenda for sustainable development. This agenda lays out 17 sustainable development goals (SDG) as a blueprint that all 193 United Nations member states agreed on; to end poverty, ensure prosperity & protect the planet ⁽⁵²⁾.

Who are the United Nations?

The United Nations is an international organization founded in 1945. Currently made up of 193 Member states. It remains the one place on Earth where all the world's nations can gather together, discuss common problems, and find shared solutions that benefit all of humanity ⁽⁵²⁾.

Why are the SDGs important?

The Sustainable Development Goals are a blueprint to help countries work towards global sustainable development and climate action, which are both vital to the present and future well-being of humanity ⁽⁵²⁾.



Section 1



Section 2



Section 3



Section 4



Section 5



Section 6

Healthy animals contribute to the Sustainable Development Goals.

| | | | |
|--|--|---|---|
|  <p>1 NO POVERTY</p> |  <p>2 ZERO HUNGER</p> |  <p>3 GOOD HEALTH AND WELL-BEING</p> |  <p>4 QUALITY EDUCATION</p> |
|  <p>5 GENDER EQUALITY</p> |  <p>6 CLEAN WATER AND SANITATION</p> |  <p>7 AFFORDABLE AND CLEAN ENERGY</p> |  <p>8 DECENT WORK AND ECONOMIC GROWTH</p> |
|  <p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p> |  <p>10 REDUCED INEQUALITIES</p> |  <p>11 SUSTAINABLE CITIES AND COMMUNITIES</p> |  <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p> |
|  <p>13 CLIMATE ACTION</p> |  <p>14 LIFE BELOW WATER</p> |  <p>15 LIFE ON LAND</p> |  <p>16 PEACE, JUSTICE AND STRONG INSTITUTIONS</p> |
|  <p>17 PARTNERSHIPS FOR THE GOALS</p> | <p>Healthy animals contribute to achieving at least 10 out of 17 of the SDG ⁽²⁾</p> | | |

Healthy animals contribute to the Sustainable Development Goals.



Goal 1: No Poverty

- 5 of the 10 most valuable agri-commodities are animal-sourced foods (milk, eggs, poultry, pork, beef).
- Reducing animal disease reduces losses in valuable livestock. This can help reduce poverty in vulnerable communities, as more livestock and their products mean more value therefore less poverty.



[Section 2](#) and [Section 5](#) highlight how the animal health industry helps achieve this goal.



Goal 2: Zero Hunger

- Animal medicines helps ensure food from animals is safe to eat and helps improve food yield, contributing to the supply of affordable food from animals.
- Global egg production was likely reduced by 3 million tonnes by disease, equating to a loss of US\$5.6 billion. This is the equivalent of wiping out the United Kingdom's £1.2 billion egg market nearly four times over.
- A 60% global vaccination rate for beef cattle is associated with a 52.6% rise in production equivalent to the beef consumption needs of 3.1 billion people.
- Every 1% reduction in dairy cattle disease rates would increase production enough to meet the average dairy needs of 80.5 million people.



[Section 1](#), [Section 2](#), [Section 3](#) and [Section 5](#) provide insight to how the animal health industry helps achieve this goal.



Healthy animals contribute to the Sustainable Development Goals.

3 GOOD HEALTH AND WELL-BEING



Goal 3: Good Health and Wellbeing

- Vaccination and preventive animal health care creates more reliable food supplies, protects public health from zoonotic disease and reduces antibiotic usage in animals- reducing the speed of antibiotic resistance development.

 [Section 1](#) highlights how the animal health industry helps achieve this goal.


- Livestock provide 18% of global calories and 39% of global protein. Preventing disease creates more reliable food supplies.

   [Section 2](#), [Section 3](#) and [Section 5](#) highlight how the animal health industry helps achieve this goal.

- Vaccination and preventive animal health care protects public health from zoonotic disease and keeps both pets and their owners healthy.




 [Section 4](#) highlights how the animal health industry helps achieve this goal.

8 DECENT WORK AND ECONOMIC GROWTH




Goal 8: Decent Work and Economic Growth

- Livestock is one of the fastest-growing economic sectors and innovation in animal health can increase livestock production.




   [Section 2](#), [Section 3](#) and [Section 5](#) highlight how the animal health industry helps achieve this goal.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Goal 9: Industry Innovation and Infrastructure

- The animal health industry is dedicated to research and development. Scientific advancements continue to improve animal health and welfare and sustainable practices.

   [Section 2](#), [Section 3](#) and [Section 5](#) highlight how the animal health industry helps achieve this goal.

Healthy animals contribute to the Sustainable Development Goals.

12

RESPONSIBLE
CONSUMPTION
AND PRODUCTION

Goal 12: Responsible Consumption and Production

- Up to 20% of global animal production is lost to disease (2). Vaccination and treatment with antiparasitic medicines ensures higher animal welfare, less illness and fewer deaths, making more efficient resource use, and reducing the need to treat animals i.e., antibiotics.

1

2

3

4

5

Section 1, Section 2, Section 3, Section 4 and Section 5 highlight how the animal health industry helps achieve this goal.

13

CLIMATE
ACTION

Goal 13: Climate Action

- Healthy animals require less inputs (feed, water, energy, and land use) and with better management can mean a 30% reduction in greenhouse gas emissions.

2

3

5

Section 2, Section 3 and Section 5 highlight how the animal health industry helps achieve this goal.

14

LIFE
BELOW WATER

Goal 14: Life Below Water

- Sustainable aquafarming provides over 50% of the global fish production. Fish vaccination enables more resource-friendly aquafarming.

2

Section 2 highlights how the animal health industry helps achieve this goal.

Healthy animals contribute to the Sustainable Development Goals.



Goal 15: Life on Land

- The use of animal medicines prevents the spread of animal diseases and can help protect the nation's biodiversity. In livestock the use of animal medicines can help the UK achieve more sustainable farming.



[Section 1](#), [Section 2](#), [Section 3](#), [Section 4](#) and [Section 5](#) highlight how the animal health industry helps achieve this goal.



Goal 17: Partnerships

- The animal health industry works in collaboration within the sector and with human and environmental health sectors.

For example...

- The RUMA Targets Taskforce, set up in 2017, defined 40-sector specific targets for responsible stewardship of antibiotics to be achieved across nine different livestock sectors by 2020. The group is driven by a collaboration of vets and farmers and includes industry observers such as VMD, NOAH, FSA and AHDB. In 2020, building on its success, it launched new targets that will run from 2021-2024 ⁽⁵³⁾.
- The Antibiotic Amnesty, a joint initiative between NHS England (Midlands) and veterinary practices who offered a take back scheme for unused or unwanted antibiotics for safe disposal ⁽⁵⁴⁾.
- Groups like CANTER ⁽⁵⁵⁾, SCOPS ⁽⁵⁶⁾ and COWS ⁽⁵⁷⁾ focus on controlling antiparasitic resistance in equines, sheep, and cattle, retrospectively. They are voluntary industry-led groups and composed of a collaboration of farmers, vets and other animal health experts.
- NOAH's Livestock Vaccination Guideline was developed by industry experts to help promote a shift in how vaccines are used by the dairy, beef, and sheep sectors, bringing together a partnership of farmers, vets and other industry professionals to make the most of the great potential of vaccines. The Guideline provides information to make decisions on vaccinating animals to improve animal welfare, increase productivity and positively impact the sustainability of the agricultural sector ⁽²⁸⁾.
- NOAH's campaign '[Paws to Protect](#)' encourages pet owners to read all information provided with their pet's medicine which if followed will protect pets, people, and our shared environment. The animal health industry is working together to reach pet owners to ensure veterinary medicines are used responsibly.



[Section 1](#), [Section 2](#), [Section 3](#), [Section 4](#) and [Section 5](#) highlight how the animal health industry helps achieve this goal.



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