

International Poultry Production

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Cleanliness – the key to profitable livestock farming

Every farm, whether large or small, needs to maintain animal health in order to run a profitable business. Keeping the various areas of the farm sanitary is a means to achieving this biosecurity goal.

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Foaming, spraying, dispensing and injecting equipment allows for easy, effective and affordable cleaning if the right units are installed and maintained properly.

The impact of unhealthy animals

Globally, approximately 116 million metric tons of swine and 120 million metric tons of chicken meat are produced each year. This equates to 2 billion pigs and 50 billion chickens being slaughtered each year in order to feed the global population. However, these protein sources can be hit with disease, and unsanitary conditions can be to blame for the spread of disease throughout the farm.

Diseases like avian influenza and mastitis, which reduces milk production in female pigs, negatively impact a farm's profitability and reputation. In fact, the avian flu cost the US \$3.3 million in 2015, including costs to businesses that support farms, to egg and poultry wholesalers and to food service firms. Considering that a large barn can easily hold 20,000 broiler chickens or 1,500 pigs, if disease strikes, this would have a detrimental impact on the farm's profits.

If disease occurs on a greater scale, as has happened in the past with Bovine spongiform encephalopathy (BSE or mad cow disease), profits could plummet across the nation. According to the International Trade Commission, US ranchers and processors lost almost \$11 billion in revenue between 2004 and 2007 after major importers barred US beef following the discovery of mad cow disease in the US in late 2003.

According to the World Health

Organization (WHO), crowded and unsanitary farm conditions, in addition to other factors like the overuse of antibiotics and toxins in feed diets, led to global health risks for animals and humans, like E. coli, campylobacter and salmonella.

Supporting animal health

As the transition away from antibiotic use for growth purposes takes root, farms are focusing on other key tasks like water treatment and elevated biosecurity practices.

Animals need clean, hygienic water, but some water conditions are less than ideal since the origination points are either ponds or wells. In addition, the increasing use of probiotics with animals as a replacement to antibiotics to improve gut health, there is a tendency for more build up in the water lines.

As a result, these lines need to be cleaned more often, usually between flocks and teams of hogs. Dispensers can help de-scale water lines and kill algae by diluting chemicals to the lean proportions necessary to care for the water lines. This equipment can also deliver medication, vitamins, electrolytes, probiotics, organic acids and vaccines to animals through drinking water systems.

To further protect the health of animals, and the people who eat animal products, farms must prioritise cleanliness. This includes tending to trucks entering and leaving the farm, which can track in harmful bacteria. These units can also dilute concentrated cleaning products with water, and use compressed air to generate a thick, rich, clinging foam. Foam cleaning, whether inside the barn or for trucks outside, increases chemical contact time, providing a deeper clean and a reduced chance of biosecurity risks.

Additional benefits of dispensers

In addition to maintaining animal health, the right foamers, sprayers, dispensers and injectors will support cost and environmental savings. Accurate dosing at the proper dilution reduces chemical and water

waste, thereby improving sustainability on the farm. Enhanced productivity and labour savings can also be expected when the right equipment is installed. Healthier animals means fewer treatments. Fewer treatments and a reduced need to cull lame animals allows employees to be more productive and keeps labour costs in line. Plus, a reliable dispenser will require minimal maintenance, which further improves productivity.

Finally, dispensers and injectors support better overall sanitation. Keeping a barn free of biosecurity hazards is imperative. From treating water lines to filling pump sprayers to spraying down tyres and equipment, dispensers can keep even the biggest farms clean.

Choosing your equipment

To reap the benefits of dispensers and injectors, make sure to find the right one for your farm. Consider the following:

● Water pressure and flow rate:

Water flow and pressure can fluctuate and even vary across different areas of the farm. It is important to find a dispensing system that uses pressure-regulation technology to eliminate dilution variance and keep the system from 'leaning out' or over-diluting.

● Desired injection ratio or percentage:

Farmers will have to dilute chemicals, medications, vitamins, etc at various ratios. Look for dispensers that can manage these changing needs.

● Simple installation and maintenance:

The easier a system is to install and maintain, the quicker it will be ready to use and repair if issues arise.

Disease on the farm can wreak economic havoc through animal deaths, illness treatment and productivity loss. By following the appropriate biosecurity steps, farms can reduce the impact of disease among their animals. Those managing farms should look for reliable and durable foaming, spraying, dispensing and injecting equipment that accurately doses to support ongoing health and safety, and improve their processes and bottom line. ■

References are available
from the author on request