

# Challenges and opportunities for turkey breeders

The health of turkey breeders is critical to ensure the economic production of high quality fertile hatching eggs. Those who work in the industry are accustomed to finding solutions for keeping out disease and managing health issues when they do occur within flocks.

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As the industry evolves, additional demands now come from retailers, consumers and the general public; many of whom have high expectations and seek to know how their food is produced and how the animals are cared for.

In the past, these pressures were most apparent in commercial turkey production, but now these expectations are reaching further back in the production cycle to hatcheries and breeder farms.

The turkey industry is facing new demands to the way we raise animals and this is not likely to change anytime in the near future.

We must stay knowledgeable about emerging health challenges and public demand, while also taking the opportunity to make improvements in the process.

## Turkey health

The most obvious challenge for breeders is the prevention and

control of diseases that have the following effect:

- Cause morbidity or mortality.
- Affect egg or semen production.
- Impact poult quality.

Examples include fowl cholera, influenzas, cellulitis, avian metapneumovirus, Mycoplasma gallisepticum (MG)/synoviae (MS) and Turkey Arthritis Reovirus (TARV).

With the exception of TARV, we have a good understanding of how these disease agents operate and how to manage them; however these diseases can have a large economic impact and require significant logistical planning to contain their spread.

## Biosecurity challenges

Biosecurity plays a very important role in minimising and controlling risk of disease on a farm. There are many aspects of biosecurity, but one often overlooked and important factor is the human impact.

For example, a breeder farm in the USA experienced an outbreak of MG, and it was determined that the most likely source was due to unauthorised people entering the barns to steal feed for backyard flocks.

No amount of conventional biosecurity could have prevented this. The company in question, in addition to incurring the costs of depopulating the farm and loss of eggs, had to invest in physical security for their farms which included three stranded electrical fences, motion activated video surveillance and reinforced locks on all doors.



The lesson we can gain from this example is to take the time to consider all areas where a farm could be vulnerable to outside contamination.

We typically focus our attention on rodents, wild birds, and insects as vectors for disease that require control measures to be implemented; however, the human element is probably the more important challenge to consider.

This example reminds us to consider how an individual might pass through or avoid conventional biosecurity checks, whether done intentionally or not.

## Risk of cross contamination

As breeder eggs move around the country the possibility of cross contamination and spread of disease agents increases. This applies to not only mycoplasmas but also TARV. At the moment, TARV is likely the most challenging of breeder disease agents due to lack of understanding of transmission and availability of diagnostics.

Unvaccinated breeder flocks exposed in lay have produced commercial progeny with severe mobility issues, increased culling and birds unable to walk to the loaders. Use of autogenous vaccines in breeders has helped decrease the impact in the commercials, but the rapid emergence of new strains of TARV has resulted in affected birds.

In addition, it may take many months before a new autogenous product incorporating the new viral strains is available. Also, unlike the broiler breeder industry, live vaccines are not available to serve as primers.

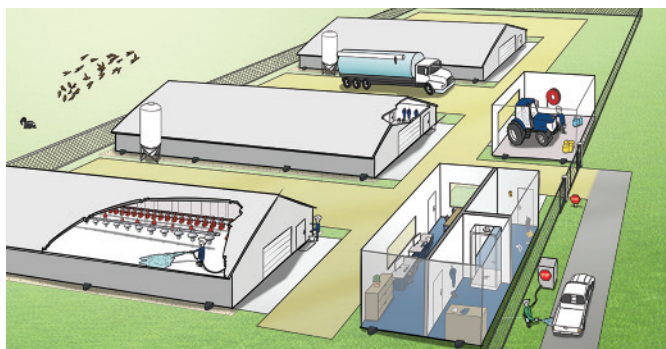
## Food safety

With the new directives on salmonella standards for ground turkey, further demands will be placed on breeders. One company that experienced a salmonella recall in 2011 estimates that the salmonella reduction practices they put in place resulted in an additional cost of \$0.06 per egg (not including the hatchery and feed mill interventions).

The additional practices included:

- Barn cleaning and disinfection.
- Use of contract crews and formaldehyde.
- Increased downtime from three to four weeks resulting in 3% less eggs.
- Improved structural integrity of barns including roll doors that sealed completely.
- Three strand electric wire around farm perimeters.
- Contract rodent control.
- Change to egg sanitation machines.
- Additional monitoring to determine the effectiveness of interventions and flock status.
- Use of vaccines, probiotics and

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litter amendments. It is evident that the requirements to ensure optimal food safety throughout the value chain involve a lot of time and resources.

Although the above example may be overwhelming, breeders can start by conducting a self-audit of their farm practices and facility.

Tracking and triaging areas for improvements in daily processes or the features of the facility allows the chance to gradually strengthen operations in an effort to prevent a food safety recall.



## Public perceptions

As mentioned above, the general public is becoming more and more interested in food production. Knowing where their food comes from as well as how the animals are treated is of utmost importance. Despite this increased interest in food production, a career in farming is not as popular these days as it was in the past.

## Animal welfare

A significant industry topic is animal welfare. From a breeding perspective there are three main areas of focus:

- Ensuring employees are properly trained on animal welfare best practices.
- Ensuring these best practices are consistently followed.
- Increasing transparency of how birds are cared for in large farm operations.

The turkey breeder industry has and will remain focused on animal welfare due to the number of times we physically handle birds during vaccination, selection and insemination.

With each handling there is a chance that it will be done incorrectly. The focus of the general public is not on the 99.9% of birds that are handled correctly, but

rather the 0.1% that were not handled according to best practices.

Recently the National Turkey Federation (USA) developed a specific breeder audit. This is extremely useful as companies can now document that their practices are consistent with industry standards. It does not however, remove the threat of an undercover video and the damage that can be done in this instance.

We need to be vigilant that procedures are understood and followed correctly by every farm worker. We must also address the fact that consumers want to know what we do and why we do it. This presents a challenge, but it also introduces the potential for us to educate consumers and allow us to frame the conversation from our perspective.

Last year, an initiative between the Animal Agriculture Alliance and Prestage Farms (USA), took 11 influential 'mommy bloggers', with one million followers each, for a behind-the-scenes tour of pig farming and processing.

These bloggers were able to see each production stage and be active participants in the process, including during insemination of the sows.

This resulted in a very positive experience with unsolicited blogs praising the respect, compassion and educational level of the farmers

who cared for the pigs. The turkey industry needs to provide similar opportunities to demonstrate transparency between breeders and consumers.

## Engaging young workers

Another challenge the breeder industry faces is recruiting and retaining competent workers.

Many young workers come from Generation Y, also known as Millennials (born in early 1980s to early 2000s).

They are the first generations to grow up with computers in their homes and are often termed 'media addicts'. Among some people, Millennials have been deemed difficult to work with and unlikely to be interested in agriculture.

Some of the criticisms are that they are quick to leave a job if they are unsatisfied, they need to be in constant electronic 'contact' and they are too protective of personal time. They are thought to regard their work as 'just a 9-5 job'. It may seem as though many of these traits do not mesh with the expectations of a worker on a turkey breeder farm.

However as the landscape of agriculture changes, with many farmers and other workers in the industry reaching retirement age, we must

find ways to encourage young people to enter into agriculture and harness some of their strengths for the benefit of the entire industry.

Farmers, for the most part, have traditionally been early adopters of technology to increase efficiency; however there is still room to improve as the population and the demand for food grows.

Millennials are the most highly educated generation and are adept at using technology for all areas of life. Their education combined with the benefit of a fresh perspective gives us a great opportunity to make advances in the efficiency of farm operations.

These younger workers also internally place value in improving animal welfare and enjoy collaborating with others to solve common issues. Initiatives such as offering summer internship positions and forming young growers' clubs are some of the ways we can put an effort towards engaging younger workers.

## Summary

In years past the breeder farm manager's biggest concern, with regard to turkey health, was keeping out well-known disease agents.

Today's manager needs to be conscious of everything from animal welfare to maximising egg production, all the while trying to manage labour constraints, biosecurity procedures, and human safety concerns.

It is crucial for the farm manager to optimise their time and resources. With all of these new challenges, it is easy to lament the past, get bogged down by demands of the industry, and give up on the work required due to the high investment and risk involved.

However, when we can work collaboratively and think critically about the way we do things, we are able to see these challenges as opportunities for evolution and growth. ■