

Turkey Production without Antibiotics

Whether you call it Antibiotic Free (ABF), No Antibiotics Used (NAU), No Antibiotics Ever (NAE) or Raised Without Antibiotics (RWA) there is a growing trend to produce turkeys without the use of antibiotics.

The government does not have a clearly defined ABF program. According to the USDA Food Safety Inspection Service document Turkeys Raised by the Rules "The term "no antibiotics added" or "raised without the use of antibiotics" may be used on labels for poultry products if the producer sufficiently documents to FSIS that the animals were raised without antibiotics in feed, water, or intra-muscular."

Currently all the ABF production in the U.S. is being driven by retail grocery and restaurant chains. Because of this, ABF production criteria is not identical company to company. The following is a guideline for any ABF program.

Getting Started

Before the first bird is placed it is up to the supplier and the customer to agree upon a defined set of requirements. One example is whether an all vegetable diet or a conventional diet including animal byproducts and some DDG's will be fed to the turkeys. Another is if chemical coccidiostats are acceptable. The options for cocci control include chemicals (such as Amprolium, Clinicox®, Stenerol®, and Zoamix®), vaccine and natural products. In the U.S. Ionophores have been defined by FDA as a class of antibiotics and therefore cannot be used.

When negotiating requirements between suppliers and customers it should always be an open and honest negotiation. Suppliers should try to negotiate what is best for their operation and the turkeys. This will give them the most flexibility of options going forward. Examples of this would be to have the ability to use either vaccine or a chemical cocci control in a rotation program. As a supplier

you may also want to be able to switch between an all vegetable diet and conventional diet based on availability of ingredients in the marketplace and cost. The customer should negotiate on items that align with their welfare requirements, values, consumer demands and marketing scheme.

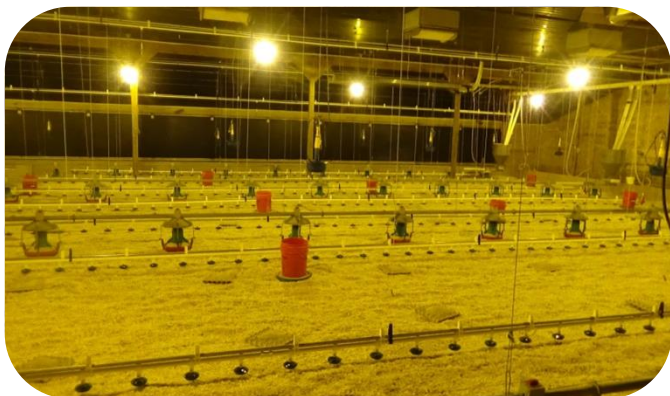
Factors That Contribute to a Successful ABF Program

In order to be successful you must have a daily detailed management plan. The Aviagen Turkeys booklet Management Guidelines for Raising Commercial Turkeys includes specific details on the following:

- Prior to the poult arrival the brooder house should be cleaned and disinfected with new litter in place.
- The water lines need to be shock treated and flushed with an effective water sanitizer in place when the poults arrive.
- A strong Bio-Security plan and program needs to be written, communicated, and followed by all farm personnel and visitors in order to be successful.
- A strong vector (rodents, flies, darkling beetles, etc.) control program in place to protect flocks from disease.
- Poult suppliers strive to produce the best poult possible but producers need to be prepared for any variation in poult quality. The grower that takes this approach will ultimately be the most successful.



- The brooder house should be fully set up with an abundance of clean feed and water that is evenly distributed throughout the house at bird height. The brooder house should be pre-warmed to where the litter is adequately heated for poult comfort.



- Precise temperature control and ventilation management with minimal swings will reduce stress and create a healthy environment for the poult to thrive. Good poult comfort, dry litter, and fresh air encourages feed and water consumption. If the poult feel good and are comfortable they will consume large amounts of feed and water. If the poult are uncomfortable it contributes to sporadic consumption which can lead to enteric challenges. *In ABF production gut health at all stages of production is important but is absolutely critical in young birds.*
- Probiotics and cocci vaccine can be administered either at the hatchery or upon arrival at the farm. *For best results it is recommended that poult be placed and on feed within 12 hours of vaccination.* This should be taken into consideration when deciding whether to vaccinate poult at the hatchery or on farm. If it must be administered at the farm it is recommended to have a well written administration procedure from the vaccine company. The poult need to be given adequate light and time to preen and consume the vaccine.



- *Density plays an important role in a successful ABF program.* Crowding birds can add more stress to a flock as well as adversely affect environmental conditions. It is recommended in the brooder barn no less than 1 square foot/bird. As a general rule in the finisher 10% to 15% more square footage per bird versus conventional placements.
- Downtime is critical for a consistently successful program. *Additional downtime versus conventional is essential for success in any ABF program.* Downtime is defined as having no birds on the premises. To further clarify, if the flock is marketed over several days downtime does not start until the last birds leave the farm. If the farm is a multiage facility by definition and practice, there is never true downtime. Multi-age facilities may find it more difficult to have consistent and long-term success therefore it is highly recommended to operate ABF facilities as a single age operation.
- *A continuous high level water sanitation program from day one to market is a critical component of any ABF program.* It is highly recommended that a dual injection system with a sanitizer and acid be installed. All wells and water sources need to be tested at least annually. They should be tested for pH, bacteria, and mineral content. Based on the results of the tests a customized water sanitation program can be developed to target problem areas. Daily testing of sanitizer level, pH and documentation of results will assure that the system is operating properly to give the desired results.



- Vaccinations are generally approved in ABF production but it should be verified with the customer. Since HE is an immune suppressant disease it is highly recommended that all flocks be vaccinated.

- Litter management is critical in both brooder and finisher. Proper litter depth is essential to maintaining favorable environmental conditions throughout the life of the flock.



- As part of any good program there must be a health monitoring program that includes routine blood and environmental testing. This is an important step in producing a healthy high quality product.
- A large part of any ABF program is documentation. There must be clear proof of segregation of the product at the hatchery, feed mill, growout and processing plant.

Critical Management Items

- Supplier and customer agreed-upon requirements for ABF production criteria. (Vegetable diet, conventional diet, chemical Coccidiostats, cocci vaccine, etc.)
- Proper cleanup and disinfecting of the brooder house, new shavings, and adequate downtime.

- A continuous high level water sanitation program for consistent performance.
- A strong bio-security program in place and followed beginning immediately after disinfectant.
- A strong vector control program in place to protect flocks from disease.
- Have the brooder house fully prepared to receive poults and get them off to a great start by having proper feed and water presentation and temperature controls.
- Maintain precise temperature and ventilation controls. Bird comfort is important for proper feed consumption and gut health.
- A good HE vaccination program will help eliminate secondary problems.
- A good litter management plan in place and followed.
- A routine blood screening program to monitor for diseases.

A successful ABF production program is directly proportional to the level of management and attention to details. While there are many factors and conditions that can contribute to an unsuccessful program the bottom line for success is a consistent detailed daily management program.



The contents of this Technical Bulletin are © Aviagen Turkeys, Inc and the advice contained herein is given as a guide and may need to be varied to meet a specific customer operation; in any event this advice should not be regarded as a form of guarantee.

Aviagen Turkeys, Inc.

31186 Midland Trail, East • Lewisburg, West Virginia 24901 • USA

Tel: +1 304 793 2680 • Fax: +1 304 793 2684

turkeysinc@aviagen.com

Aviagen Turkeys Ltd

Chowley Five, Chowley Oak Business Park • Tattenhall, Cheshire CH3 9GA • UK

Tel: +44 (0) 1829 772020 • Fax: +44 (0) 1829 772059

turkeysLtd@aviagen.com

Web: www.AviagenTurkeys.com

Visit www.AviagenTurkeys.com for a complete library of technical publications.



Nicholas