

Proceedings of the Arkansas Nutrition Conference

Volume 2023

Article 1

2023

A View of Poultry Production in the Americas

Michael Donohue

Agri Stats, Inc. Fort Wayne, IN

Follow this and additional works at: <https://scholarworks.uark.edu/panc>



Part of the [Agriculture Commons](#), [Nutrition Commons](#), and the [Poultry or Avian Science Commons](#)

Recommended Citation

Donohue, Michael (2023) "A View of Poultry Production in the Americas," *Proceedings of the Arkansas Nutrition Conference*: Vol. 2023, Article 1.

Available at: <https://scholarworks.uark.edu/panc/vol2023/iss1/1>

This Article is brought to you for free and open access by ScholarWorks@UARK. It has been accepted for inclusion in Proceedings of the Arkansas Nutrition Conference by an authorized editor of ScholarWorks@UARK. For more information, please contact scholar@uark.edu.

A View of Poultry Production in the Americas

Michael Donohue
Agri Stats, Inc.

Introduction

The primary goal of the presentation is to share a long-term overview of how broiler production has changed over the last 35 years in areas of bird performance, production costs, particularly in the area of feed ingredient cost per lb. and illustrating how poultry nutritionists have adapted feed formulations to meet the changes in performance and cost.

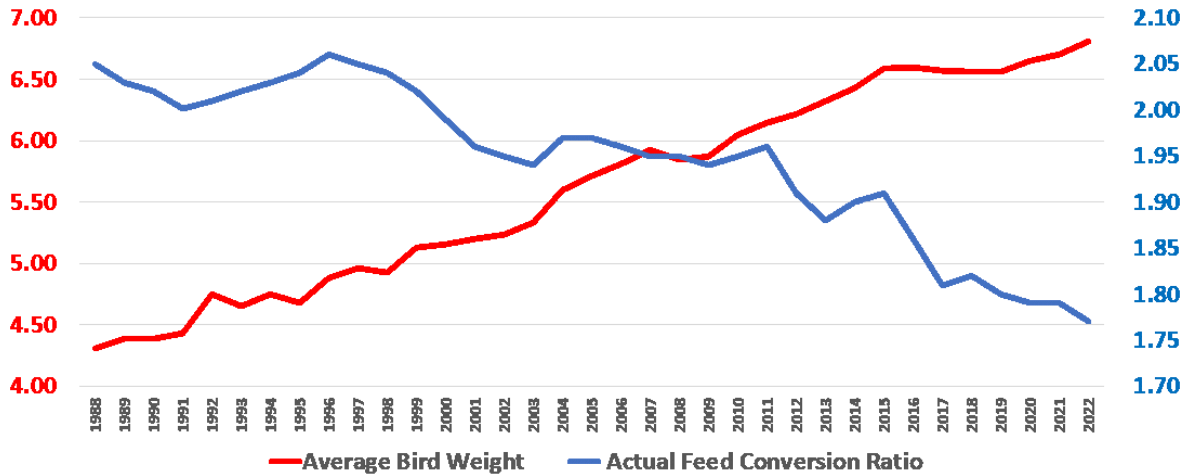
The data cited in the presentation is derived from Agri Stats weekly and monthly benchmarking reports covering U.S. broiler production from 1988 through 2023 and average production costs and performance for broiler producers in Mexico and Brazil in more recent years. The data represents weighted averages for each metric.

Topics covered in broiler and breeder performance include rates of lay, hatchability, growth rate, livability and meat yields. For economic values we look at feed ingredient cost and total cost per live lb. produced, actual corn and soybean meal costs as part of the feed cost, and both costs and inclusion rates for different feed ingredients and feed medications in the U.S. industry and in Mexico and Brazil.

Production Results

The changes in bird performance over the last thirty-five years are truly remarkable. In 1988 the average live weight for birds processed in the U.S. industry was 4.3 lbs. with a feed conversion ratio of 2.05 lbs. of feed for 1 lb. of gain. In 2022 the average live wt. was 6.7 lbs. (56% larger) with an actual (non-adjusted) feed conversion ratio of 1.77 lbs. of feed for 1 lb. of gain. (Fourteen percent less).

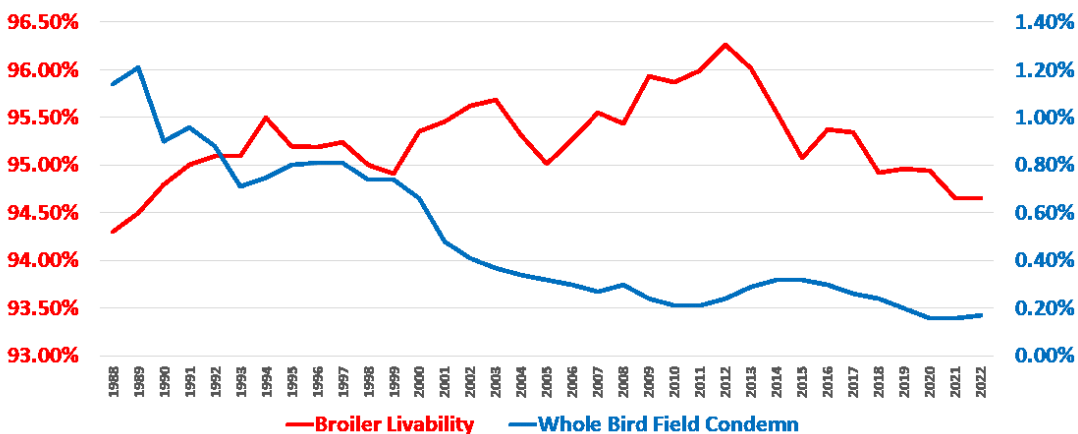
Actual Feed Conversion Ratio and Average Live Wt. (Lbs.) U.S. Broiler Industry 1988 through 2022



Average broiler livability has declined in recent years, in large part due to the change in feeding programs where antibiotics have been removed in all feeds and in hatchery vaccination programs.

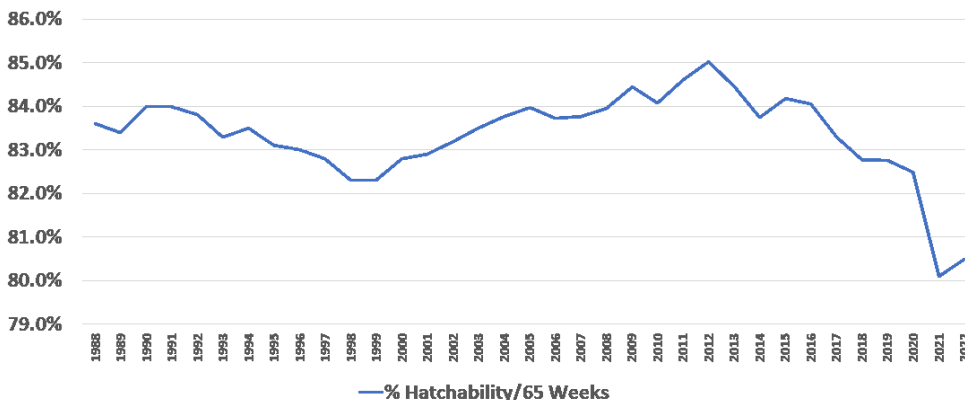
Currently close to 60% of all broilers produced in the U.S. are raised without antibiotics. In 2013 fewer than 3% of all birds processed were antibiotic free.

% Broiler Livability and Whole Bird Field Condemnation U.S. Broiler Industry 1988 through 2022



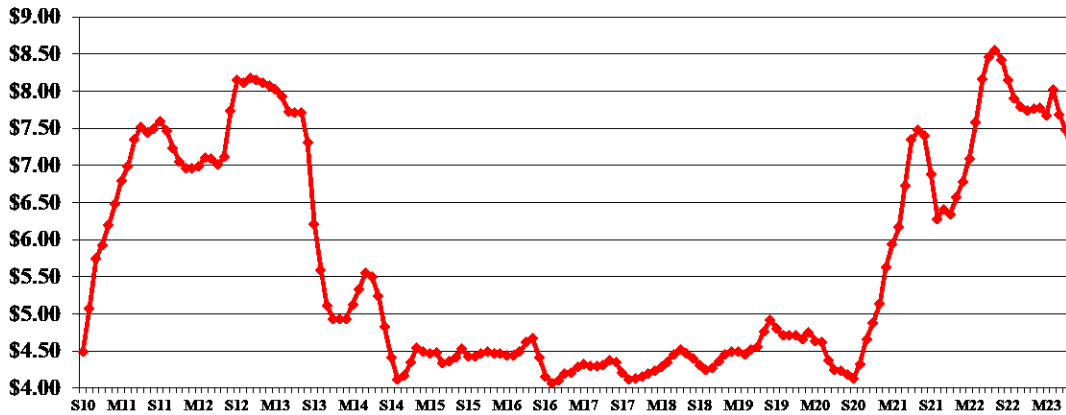
The industry struggles with challenges in average hatchability. A decade ago, 85% average hatch would have been an acceptable norm, now 80% is the average.

**% Hatchability (Adj. to 65 Weeks of Age)
U.S. Broiler Breeder Industry 1988 through 2022**



Over the period the industry has experienced considerable volatility in feed ingredient costs, particularly in the value of corn which typically represents 60% of the volume of a ton of broiler feed and soybean meal which accounts for 25% of a ton of feed. In the mid-2000s through the early 2010s and again over the last several years, the price of these major ingredients increased significantly due to the effects of the mandated ethanol programs, exacerbated by any difficulties in the harvests of U.S. corn and soybeans. As an example, the cost of corn fed to chickens reached a peak of over \$ 8.00 per bushel in 2012 before a series of good harvests led to prices stabilizing at \$ 4.50 per bushel for several years. Subsequent poorer than anticipated harvests in 2020 and 2021 led to prices reaching a record level of \$ 8.50 per bushel in late 2021 and into 2022. An increase of \$ 1.00 per bushel of corn usually leads to an increase of \$.025 in feed ingredient cost per live lb.

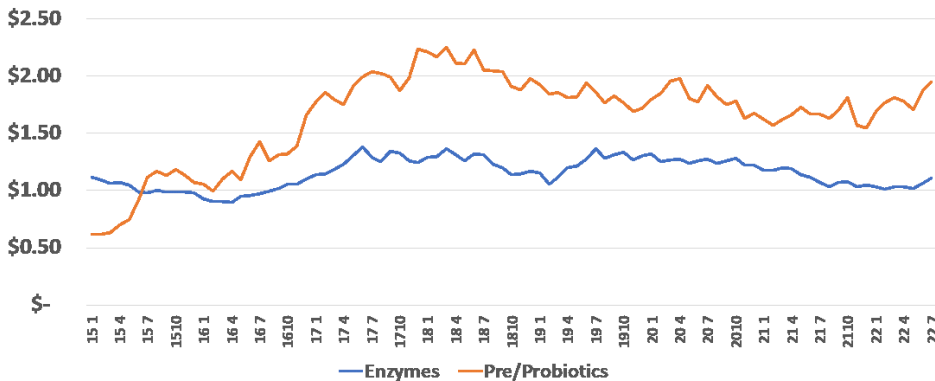
Actual Corn Cost/Bushel September 2010 through July 2023



One example of how broiler nutritionists are reacting to higher feed ingredient costs and performance challenges associated with the reduced use of antibiotics in the feed has been in the usage of enzymes and pre/probiotics in poultry diets.

Non-phytase enzyme cost per ton is stable but the cost of pre/probiotics in a ton of feed has increased significantly over the last eight years, from \$.60 per ton in early 2015 rising to almost \$ 2.00 per ton in recent years.

Spending on Enzymes and Pre/Probiotics per Feed Ton U.S. Broiler Industry 2015 through 2022 by Month



Summary

Broiler production in the U.S., and indeed around the world, is a very dynamic process, constantly adapting to changes to both short term and longer-term challenges and the evolution of consumer demand for poultry meat. Successful companies use all the data available from research studies and industry data to respond to these challenges, assuring future success while providing affordable and nutritious protein for consumers in the U.S. and in other countries. It is a track record of success.

Literature

Agri Stats Monthly and Weekly Broiler Benchmarking reports 1988 through 2023: Agri Stats, Inc. Fort Wayne IN.