### IOWA STATE UNIVERSITY Digital Repository

Iowa State Research Farm Progress Reports

2001

# Organic Broiler Chicken Production Trial–Allee Farm

Thomas Olsen Iowa State University

Lyle T. Rossiter *Iowa State University,* ltross@iastate.edu

Follow this and additional works at: http://lib.dr.iastate.edu/farms\_reports Part of the <u>Agricultural Science Commons</u>, and the <u>Agriculture Commons</u>

**Recommended** Citation

Olsen, Thomas and Rossiter, Lyle T., "Organic Broiler Chicken Production Trial–Allee Farm" (2001). *Iowa State Research Farm Progress Reports*. 1770. http://lib.dr.iastate.edu/farms\_reports/1770

This report is brought to you for free and open access by Iowa State University Digital Repository. It has been accepted for inclusion in Iowa State Research Farm Progress Reports by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.

### Organic Broiler Chicken Production Trial–Allee Farm

#### Abstract

The Iowa State University Allee Farm is classified as a small conventional grain and livestock operation. Decreasing profit margins for smaller farms have led the Allee Farm into sustainable diversified niche market demonstrations. Five acres of corn were certified organic in 1999 by the Organic Crop Improvement Association. A specialized livestock marketing plan was implemented in June 2000. As a means of adding value to the organic grain, direct market organic broiler chickens were raised. This demonstration will provide knowledge of an integrated farm organic system from a commodity crop to the consumer's plate.

#### Disciplines

Agricultural Science | Agriculture

## **Organic Broiler Chicken Production Trial–Allee Farm**

Tom Olsen, agricultural business specialist, ISU Extension Lyle Rossiter, farm superintendent, Allee Demonstration Farm

### Introduction

The Iowa State University Allee Farm is classified as a small conventional grain and livestock operation. Decreasing profit margins for smaller farms have led the Allee Farm into sustainable diversified niche market demonstrations. Five acres of corn were certified organic in 1999 by the Organic Crop Improvement Association. A specialized livestock marketing plan was implemented in June 2000. As a means of adding value to the organic grain, direct market organic broiler chickens were raised. This demonstration will provide knowledge of an integrated farm organic system from a commodity crop to the consumer's plate.

To raise organic grain, no synthetic chemicals, fertilizer or materials can be applied for thirtysix months. The Allee Farm's organic corn, purchased organic soybean meal and premix were processed with an IH 490 grinder/mixer on the farm. Broiler chicken production was chosen for simplicity of organic standards. The chick is organic when it hatches from the egg. The adult hen does not need to be raised organically or to be certified organic.

The ultimate goals were to introduce organic poultry production to the farm system, demonstrate the requirements of organic livestock certification, and compare traditional coop raised birds to an organic pasture environment. The legal requirements of directmarketing live or processed poultry from the farm were also demonstrated.

### **Materials and Methods**

Two hundred Cornish Rock broiler chicks were raised in a traditional 10 ft x 12 ft brooder house for three weeks. They were divided into two groups, 100 chickens stayed in the brooder with access to an outside grass pen. The remaining 100 chickens grazed on 2-4 in. high certified organic alfalfa-grass pasture in a 10 ft x 12 ft portable shed (chicken tractor). Daily movement of the chicken-tractor provided fresh forage and a sanitary environment. All were fed an on-farm processed ration of organic corn, soybean meal, and vitamin premix. Production records were kept for the two feeding systems and compared with traditional performance results of growth rate and feed efficiency.

An organic inspector was hired to certify the farm production facilities, the local premix manufacturer, and a state certified poultry processor. All of the chickens were direct marketed locally through a local custom processor, one half as an inspected organic frozen product and the other as live birds. A state certified scale and county inspected freezer were added for the on-farm consumer purchases.

An Iowa State University Food Science sanctioned sensory evaluation (taste test) was conducted at the Allee Mansion. Twenty panelists rated by taste preference, five different brands of chicken compared with the two types of Allee Farm chickens.

### **Results and Discussions**

The growth rate and feed efficiency of both organic farm-raised systems out-performed the expected standards from the breeding company of the Cornish Rock chicken. Comparing the two onfarm systems, they were similar in all measures throughout the seven weeks. The Allee chicken tractor chickens gained 7.12 lb and the brooder chickens 6.69 lb, compared with the company average of 6.56 lb (Figures 1 and 2). Farm-raised organic feed inputs are comparable with commercial feed costs for a small farm. Conventional farm feed costs \$1.31 per bird, organic feed \$1.79, and commercial feed \$2.00-\$2.43 for the same feed consumption of 15.17 pounds of feed per bird.

### Table 1. Weight Comparison



Table 2. Feed Comparison

