



Healthy Food, Diverse Farms, Vibrant Communities

Comparison of Poultry Breeds

Cooperators

Dana Foster, Scattergood Friends School Farm
Rob and Tammy Faux, Genuine Faux Farm
Tim Daley, Daley Shamrock Acres

Project Timeline

Spring through Summer 2009
Fall of 2009 (time difference explained in method)

Web Link

practicalfarmers.org/resources

Contact

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Funding

Leopold Center for Sustainable Agriculture

Abstract

Producers like the Cornish Cross poultry variety because they have been bred for fast production and high feed efficiency. However, they don't perform well on pasture, so producers are looking for an efficient breed alternative to the Cornish.

In this trial, the growth rates of Cornish Cross, Freedom Ranger, and Black Broilers were tested in both Tractor and Day Range systems. The Freedom Ranger and Black Broiler did not grow as fast as the Cornish Cross in either system.

fall.

Each farm set up their trial based on their current pasturing system:

Daley- Tim currently uses the Chicken Tractor system popularized by Joel Salatin. He had one tractor with Cornish Cross and one tractor with Rangers. The birds stay in the tractor, and it is moved to fresh pasture every day.

Faux- Rob and Tammy currently use the Day Range system. The birds are closed into the barn at night and let out into a permanent pasture during the day. Rob and Tammy had both Blacks and Rangers in their trial.

Scattergood- Scattergood currently uses both Tractors and the Day Range system. They used 1/2 Blacks and 1/2 Rangers in both Tractor and Day Range system.

Farm Cooperators



Dana Foster is the Livestock Manager at Scattergood Friends School Farm. The farm's primary goal is to provide food for the school. They have fruits, vegetables, beef,

hogs, pasture ground, hay, and a broiler and laying flock.



Rob and Tammy Faux of Genuine Faux Farms raise fruits and vegetables for the local market, primarily through their CSA. They also raise broilers, layers, turkeys, and a few ducks.



Tim Daley of Daley Shamrock Acres raises all types of poultry and pastured lamb. He primarily sells by direct market pastured broilers, eggs and turkeys.

Background

The conventional broiler industry has selectively bred the Cornish Cross for quick production and high feed efficiency. Because of this selection, which has occurred over approximately 45 years, the current Cornish Cross breed can grow to a large processing weight in eight weeks.

The Cornish Cross is well suited for a barn situation, but producers report they do not forage well in a pastured system. The Cornish do not forage as well as other breeds and as a result do not fully receive the benefits of pasturing. Many producers are looking for breed alternatives to the Cornish Cross that will still grow to processing weight fairly quickly. The French Colored Ranger and the Black Broiler have stood out as possibilities for replacements to the typical Cornish Cross.

Method

Three breeds were tested: the Cornish Cross, the French Colored Ranger (known as the Freedom Ranger), and the Black Broiler (known as the Black). Originally all cooperators were going to get their birds in late April and May, but the Scattergood chicks order was not filled correctly, so they re-ordered and completed their trial in the

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Results

The different housing systems appeared to make a small difference in growth, but the difference is not statistically significant. The Tractor Average Daily Gain (ADG) for the Black=.069 and Ranger=.091 at Scattergood. The Day Range ADG for the Black=.074 and Ranger=1.02 at Scattergood. Both pasturing systems are effective (See Figure 3).

The differences between the Cornish Cross and Ranger growth rates were statistically different (Cornish ADG=.076 and Ranger ADG=.045 at Daley's Farm). The Ranger does not grow as quickly as the Cornish Cross. It was noted that Rangers are much more active foragers and moved around the pens more. (See Figure 1)

The farmers who used the Black noted that they were difficult to keep enclosed, and determined that the growth rates were not sufficient for their farms. The difference between the growth rates for the Ranger and the Black were statistically different (Ranger ADG=.068 and Black ADG=.049 at Faux's Farm) (See Figure 2 & 3).

Conclusions

Ultimately when choosing a breed for a pastured poultry system, farmers should take into account their goals and marketing strategies. If it is important for them to have a fast-growing bird that is able to be processed in eight weeks, this study verifies that Cornish Cross is the best option. If the farmer is willing to have a longer growing period and a smaller processed bird, the Freedom Ranger is the best option.

This study suggests that the Black Broiler is not a worthy contender. The Black grows at similar rates to most heritage breeds, which require a 16-20 week growth period. At those growth rates, the farmer has to command a high price per pound in order to simply cover costs.

Another piece in the decision-making process has to do with economics, and the additional cost of raising the birds the few extra weeks it requires to get to full processing weight (feed, labor, housing, etc). The economics were not included in this study

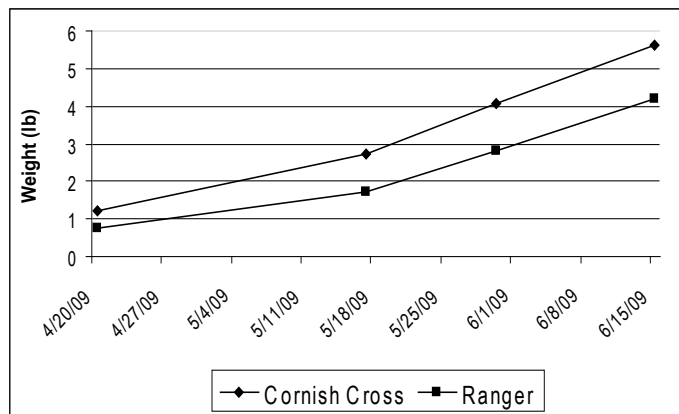


Figure 1. Daley Shamrock Acres Cornish Cross and Freedom Ranger in Tractor system

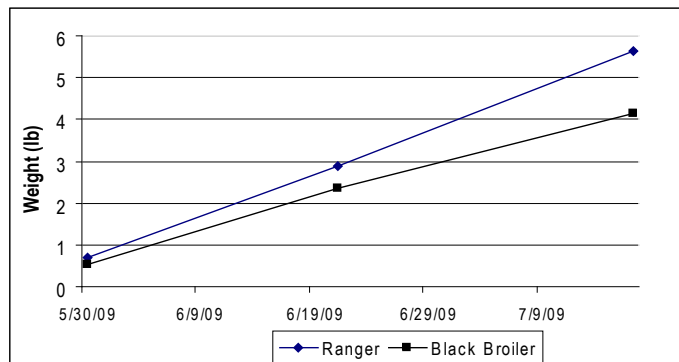


Figure 2. Genuine Faux Farm Freedom Ranger and Black Broiler in Day Range system

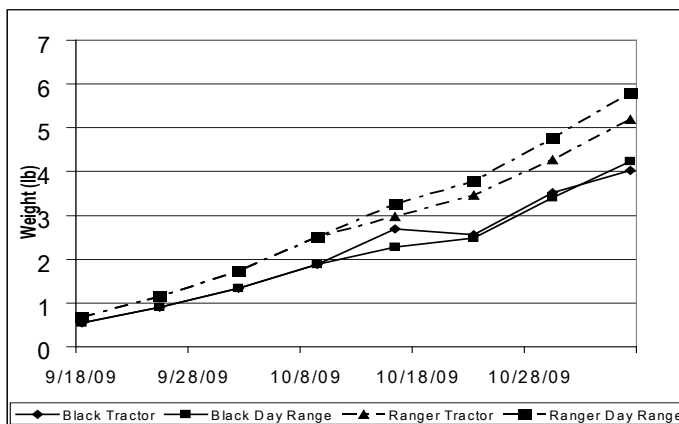


Figure 3. Scattergood Friends School Farm Freedom Ranger and Black Broiler in Day Range and Tractor system