

Research Protocol

2016

Pastured Livestock: Meat chicken comparison

Farmer-Researcher: Drake Larsen, Three Ridges Ecological Farm, Elgin County

In cooperation with Jason Hayes

Research Question: Does the Nova Free Ranger, a meat chicken derived from European heritage breeds, differ from the industrial White Rock with respect to production costs and meat quality?

There is anecdotal evidence that the Nova Free Ranger will supplement food intake more with grazing and, therefore, will have superior nutritional value and taste. Given that White Rocks have high feed conversion efficiencies, however, production costs must also be evaluated.

Drake will:

- Take photos throughout the project
- · Keep in contact with EFAO with updates and questions
- Establish and conduct experiment as outlined in Protocol below
- Turn in data by October 2016
- Complete farmer-led research program training and surveys
- Present at the Farmer-led Research Meeting in Kingston, November 29-30
- Maintain current membership in EFAO

EFAO will:

- Monitor progress of project
- Conduct training program
- Help set up Research Protocol, write and publish Protocol
- Help analyze data, write and publish Research Report
- Help set-up taste test and coordinate meat analysis
- Provide \$500 payment to farmer at conclusion of project
- Reimburse one night's hotel stay for the Farmer-led Research Meeting in Kingston, November 29-30

Research Protocol

- Keep two groups of chickens, one control (White Rock, WR) and one treatment group (Nova Free Rangers, NFR) as outlined under Experimental Design, and try to maintain uniformity within the two groups.
- Keep production, feed and pasture records (see Data Collection below and Data Collection Sheets)
- Report slaughter weights, feed intake and notes and observations (see Data Collection below and Data Collection Sheets)
- Jason Hayes at Burdock Grove Farm will collect replicate 1

Experimental Design - continued on Page 2

With support from:



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Experimental Design for REPLICATES 2 & 3 (repeat twice throughout season)

50 Nova Free Rangers 50 White Rocks 50 White Rocks 50 Nova Free Rangers Outside enclosure on Brooder Brooder pasture Shelter is moved daily around pasture

Data Collection (also refer to Data Sheets):

Production Records

- Note any health issues, veterinary treatments, or mortalities
- Record observations of lameness, general appearance
- Record source, # of chicks and date of arrival on-farm for each breed
- Record management differences or observed differences between groups
- · Record butcher date and any notes from abattoir or Inspector

Pasture records

- Record date chickens are transferred from brooder to pasture
- · Record observations about tendency to graze or peck, proximity of chickens to feeders, if possible
- Identify and record plant species in pasture (if possible), and general condition of pasture before and after chicken production

Feed records

- Record manufacturer, ingredient list of feed provided to each group
- Record amount of feed (starter, grower, supplements) fed to each group
- Record the number of days on starter and grower rations

Carcass evaluation

- Record carcass weight and breed for all chickens
- Send meat for fatty acid /protein / vitamin analysis
- Contribute one WR and one NFR to the taste test

Background Information:

- 1. Badger, M. 2015. Pasture and Feed Affect Broiler Carcass Nutrition, American Pastured Poultry Producers Association (APPPA)
- 2. Nova Free Rangers, http://novafreerangers.com/