Profile from the Field

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Farmer Examines the Cheapest Way to Produce the Best Egg

Project Title: The Cheapest Way to Produce the Best Egg: Comparing How Different Supplemental Feeds Affect the Cost and Nutrient Density of Eggs from Heritage and Hybrid Pastured Hens

Coordinator: John Arbuckle
Location: La Plata, MO

SARE Grant: $7500
Duration: 2012-2013

To read the full project report, go to www.sare.org/projects and search for project number FNC12-844.

Singing Prairie Farm, owned by John and Holly Arbuckle, is on 50 acres in northeast Missouri. They raise beef cows, free range pigs, turkeys, fryer chickens, and laying hens. Although the operation is not certified organic, it offers the animals organic and/or non-GMO feed and follows organic standards. The Arbuckles sell their meat on farm and wholesale their eggs to grocery stores and restaurants in the area.

Arbuckle's experiment compared the cost effectiveness and nutrient density of formulated organic rations to sprouted wheat rations for supplemental feed. Sprouted wheat rations are less expensive than organic rations and are widely available. Also, some believe sprouting wheat increases protein content and releases vital nutrients and beneficial enzymes.

Arbuckle used four sample groups, with 50 chickens per group. The chickens were placed in portable pens on pasture. One group was Red Sex Link hens supplemented with formulated organic rations; a second group was Red Sex Link hens supplemented with sprouted wheat; a third group was Rhode Island Red hens fed organic rations; and the fourth was Rhode Island Red hens fed sprouted wheat rations.

Ready to learn more about chickens? "Profitable Poultry: Raising Birds on Pasture" features farmer experiences plus the latest research in a guide to raising chickens and turkeys using pens, movable fencing and pastures.
Find it online for free at www.sare.org/Poultry.

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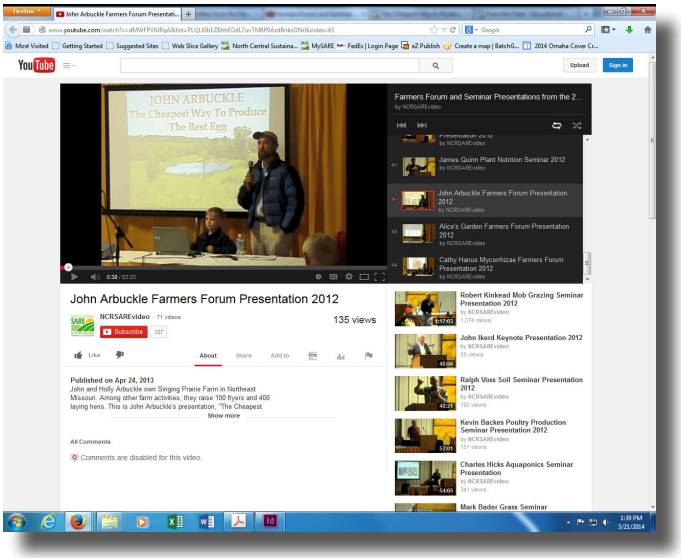
Samples from each group were sent to a lab after four months for testing for protein, fatty acid profile, and a number of vitamins. In addition to quality, a statistician analyzed the cost-effectiveness of each group's output.

For the first five weeks, the wheat-fed chickens were the most profitable, laying 24 percent fewer eggs but costing 55 percent less in feed. A period of intense heat and drought — not good for chickens — had an impact the rest of the summer, reducing production significantly. During the better weather, group two (the hybrids fed wheat rations) were the most cost effective; that held true, too, during the intense heat and drought, though the difference was negligible since they produced so few eggs.

"When there was a daytime high of 85 degrees or less and precipitation of 1 in. or more each week, all populations were able to lay acceptably well," said Arbuckle. "During that time, purchasing a balanced ration was not necessary. We found out that our type of rolling cow pasture was capable of producing enough of what the wheat was lacking to allow competitive egg production."



John's presentation at the 2012 Farmers Forum can be viewed online through NCR_SARE's YouTube playlist.
Visit www.youtube.com/NCRSAREvideo and search "John Arbuckle" to watch it.

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