SHARING OUR ROOTS

Acres of Innovation

WHAT IS THE FEED CONVERSION RATE FOR A FLOCK OF 1000 BIRDS RAISED IN A FREE-RANGE SYSTEM?

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Sharing Our Roots has developed a revolutionary poultry-centered regenerative agriculture system to challenge the current unsustainable industrial food system. The purpose of this research was to establish the foundational management and tracking tools needed to optimize the scale of free-range meat poultry production in this system under our agroforestry-based Regenerative Poultry Standard.

METHODS

One thousand, day-old chicks were introduced to a 12' by 72' shelter with exit doors facing each and west for birds to rotate between two foraging areas. Daily activities were tracked chronologically. Our evaluation focused on ranging distance and role of the canopy, ground-feed intake, feeding behavior (outdoor feed, indoor feed, and impact on ranging behavior), feed conversion rates, and general health.

RESULTS

Of the 1000 birds initially introduced into the system, 965 were harvested. The feed conversion rate observed was below 3 lb. of feed per pound of meat harvested. Ranging space was determined at no less than 20 square feet per bird per paddock, or 40 square feet of total ranging area per bird. Young hazelnut bushes were planted, but birds destroyed the first planting. They were then replanted and protected to keep the birds from defoliating them. Birds reached their target weight at 72 days.

The first Regenerative Poultry Production Manual was completed based on the daily data was collected. Overall, we were able to fine-tune the fundamental blueprint for our agroforestry-based free-range poultry production system.

DISCUSSION & FURTHER RESEARCH

This flock was the first commercial flock raised under this system, the application of field management practices and the evaluation of the methodology produced a new understanding of labor reducing strategies. This experience served as the foundation for the planning of aggregated production to reach larger scale impact. Although flocks up to 1,500 birds can be raised with this methodology, the number of birds raised in this flock were linked to the square footage available, which previous observations had shown was a desired animal density.

Labor and feed make up over 80% of the cost of raising chickens, we also focused on reducing both without compromising the high quality of the meat and the farmer's income. Health of the work environment was also considered while planning management and schedule of production.

Future research should investigate other methods for reducing feed costs including 1) reducing use of ground up feed by increasing grain sprouting systems as a larger portion of feed intake and 2) researching and testing other slow-growth breeds. Also, the use of medicinal herbs to improve feed conversion rates and health should be explored.