Summary & Resources - Hallow Springs Farm July 2023 OAK Farmer Field Day





Keeping Our Balance: Diversified Farming with Steep Hills and Off-Farm Jobs

Steep hills, rocky soils, and obvious grit and determination from co-farmers Holly and James Robinson were the highlights of this field day visit to Hallow Springs Farm in Rockcastle County. Developing a family farm while raising five kids, working off-farm jobs, restoring a century-old house, and reclaiming the land from the effects of 40 years of aggressive farming practices would cause some folks to shy away from the task. Holly and James shared how their organic practices and "gentle touch" of working with the land, instead of against it, are helping them to build a successful diversified farm business.

When the couple purchased the land from James' family in 2015, they knew they had an uphill climb (unavoidable pun) to rebuild the health of the land from decades of overlogging and overgrazing. Holly and James shared that these practices depleted the soil and contributed to the erosion and loss of topsoil fertility found throughout the 70+ acres of woodlands and pasture. To address this, they started learning the land and working with what they had. Three to four times a year, the bottom of the "bowl" where the house is located, surrounded by steep hills, became a lake from runoff, and various slopes ran like rivers. The couple started to allow vegetation to grow up, much to the distaste of some who thought they were "letting the place go," but the Robinsons knew they were acting with intention. Encouraging growth, laying fallen timbers to act as anchors to catch and build up soil, and locating the natural terraces of the land to start garden beds have allowed the farm to produce and to heal. "We're hoping that, with our help, " Holly shared, " the land will repair itself somewhat."

Rotational grazing of their cattle has offered multiple benefits over the years. Noticing that hay productivity was diminishing and requiring greater inputs due to the poor soil fertility, the Robinsons worked to develop multiple pasture paddocks for rotation, allowing the land to rest and recover. By rotating the herd, the forage plants maintain strong roots systems and the added manure and hoof action stimulate increased microbial diversity and fungal development within the soil. The resting pastures regenerate through photosynthesis and undisturbed growth before returning to grazing.

While the cattle are adding to the fertility of the land through the intentional rotations, the Robinsons are also finding that they don't need to feed as much hay due to the improved forage productivity and health.

A small herd of goats also provides the family farm with multiple benefits. Raised primarily for family consumption of meat and milk, the goats allow Holly to create goat milk's soap as a value-added product for the market. The goats also offer an easy way to clean up underbrush, especially in the difficult-to-manage steep and rocky areas of the farm. It's best to "let them eat high," Holly explained, as the goats prefer roses and briar bushes that stretch them to higher feeding but also allow them to avoid the ground-based parasites that cause sickness and death in so many goats. Holly has educated herself on parasite management in her goat herd, as she wanted to raise them organically, and learned about the struggles involved when goats are not wormed. While intentional rotations of their pastures and woodlots combined with breed selection for greater parasite resistance are the primary keys to a healthy herd, Holly does practice sustainable deworming every 6-8 weeks and monitors her animals with FAMACHA checks on their eyelids (pink not white!)

The livestock provide cattle sales and goat milk's soap for farm profit, yet the Robinsons lean heavily on farmers market sales of their produce and value-added products for farm income. Utilizing the terraces along the hillsides and the bottomland with the least risk of flooding, Holly and James have developed multiple garden beds for diversified vegetable production, including the newest addition under a 30' x 96' high tunnel. This covered protection has allowed them to add weeks of produce to the start of their market season and has increased the volume of healthy vegetables they grow from "small piles to boxes!" Using drip irrigation fed from a roof runoff structure and natural mulch from hay bales, their first season with the tunnel has been a learning curve with much success. While they learned quickly that spring brassicas needed immediate row cover protection from cabbage moths and flea beetles, they also found that their beet production was the best ever, and that their customers have quickly learned to love colorful, vibrant swiss chard!

"The economic potential using the high tunnel doesn't even compare to our previous crops," Holly explained, as she encouraged other farmers to talk with their <u>local NRCS office</u> about the EQIP - High Tunnel Initiative program that helped cost-share the structure and its irrigation system. Jamie Ponder, NRCS Soil Conservationist Technician who assisted the Robinsons with their EQIP process, added that NRCS also has a Conservation Practice for Diversion, to prevent erosion and runoff by diverting water elsewhere, that could also be applied for erosion control and water quality. Kayla Preston, Grow Appalachia's Social Enterprise Manager, shared details of their Berea-based initiative to manufacture, sell, and install high tunnels and irrigation systems for local farms, and Chris McKenzie, Farmer Development Coordinator, offered information about the educational programming, farm planning, and related technical assistance that Grow Appalachia provides.

Making use of partners and available resources have allowed Hallow Springs Farm to build faster and grow smarter. In addition to the NRCS assistance, Holly and James received Kentucky State University Small-scale Farm Grants for a sawmill that helps with fencing, infrastructure, and erosion-control measures, and for kitchen equipment to build the value-added production of jams, jellies, and breads. Holly sought out multiple resource providers to learn the rules and restrictions associated with marketing these products, including UK's Cooperative Extension Agents and resources, her county health department, and the Kentucky Department of Agriculture's Farmers Market Manual (updated annually with current best practices). She's also added farm and liability insurance for the farm to mitigate risk from any of their products or on-farm occurrences.

And, admittedly, sometimes the Robinsons just grow something for the fun of it... with hopes that down the road, they'll find the right market to turn it into a profitable enterprise. Early on, James

followed the suggestion of a friend to grow hops - for more than 5 years, they've tended a consistent, healthy crop of Nugget and Chinook hops on their highest terraced section of the farm. Supported by concrete-mounted 16'-tall locust poles with wires strung between them, the current 30 rhizomes are hearty and - as hops do - they grow fast. James will sickle mow them in early spring, and yet they'll grow 20' tall by the end of the season, providing shade for the vegetable beds planted below them. Their hillside site provides them the airflow, direct sun, and water they require, and the Robinsons' natural hay mulch keeps them relatively free from weeds. James yields a healthy harvest from his hops each year, but he's not yet found a market for them - especially considering the necessity to properly dry or use them within 24 hours of harvest! (Any local craft brewers reading this? Contact them!)

Educating themselves, learning from the land, and taking a long view to restore their farm and grow their family farm business - combined with hard work and a dedication to community - Holly and James Robinson's story at Hallow Springs Farm resonated deeply with the field day participants. OAK is grateful to Holly and James of Hallow Springs Farm for the opportunity to tour and learn about their family farm in our community of interested farmers and ag professionals!

Resource Links:

- OAK resources:
 - Join OAK today!
 - Find-A-Farm Directory OAK Family Farm Members
 - Asterisks below indicate OAK member discounts
 - OAK YouTube farmer resources / conference and field day playlists
 - OAK Transition Trainer for assistance with, or info on certifying organic
 - <u>USDA's National Organic Program</u> and <u>OMRI-listed products</u> for compliance
 - OAK Field Days! Register NOW!*
- Grow Appalachia
 - o Farmer Development Chris McKenzie, Storey Slone
 - Social Enterprise Kayla Preston, Steph Hamborsky
- UK Food Connection's East Kentucky Value Chain Coordinator Heather Graham
- Kentucky Department of Agriculture (KDA) Organic Marketing Program Abigale George
- Suppliers / Products
 - Suppliers and Farm Resources on OAK's Find-A-Farm Directory
 - Grow Appalachia Growing Supplies
 - Earth Tools*
- Potential Funding Resources
 - Kentucky Center for Agriculture and Rural Development (<u>KCARD</u>)
 - Free <u>business planning</u> for Kentucky farms and agribusinesses
 - Funding assistance and grant information (Kentucky and beyond)
 - Sign up under "GET UPDATES" on KCARD website to receive e-newsletters
 - USDA Natural Resources Conservation Service (NRCS)-Kentucky
 - EQIP High Tunnel Initiative
 - High Tunnel System NRCS KY
 - Microirrigation NRCS KY
 - Roof Runoff Structure NRCS KY

- Diversion NRCS-KY
- Organic Management NRCS Conservation Practice Standard Coming Soon;
 In Development
- Conservation Plan Supporting Organic Transition
- SOAR loan southern and eastern KY
- KSU Small-Scale Farm Grant
- County Ag Investment Program (CAIP) grant: county-specific! Ask your County Cooperative Extension Agent
- Soil Health Resources:
 - Cover Crops for Sustainable Crop Production Sustainable Agriculture Research and Education (SARE)
 - <u>Building Soils for Better Crops</u> Sustainable Agriculture Research and Education (SARE)
 - Cornell Soil Health Manual Cornell University's College of Agriculture and Life Sciences
- Crop Production Resources:
 - Hops | Center for Crop Diversification University of Kentucky
 - General Production Resources | Center for Crop Diversification
 - o Organic Agriculture | Center for Crop Diversification
- Livestock Management / Nutrient Cycling in Pastures:
 - <u>Livestock Systems Promoting Soil Health and Biological-Based Fertility</u> video Greg Halich and David Burge - OAK2023 Conference
 - Managed Grazing Tutorial National Center for Appropriate Technology (NCAT)'s Appropriate Technology Transfer for Rural Areas (ATTRA)
 - Nutrient Cycling in Pastures NCAT ATTRA
 - Building Healthy Pasture Soils NCAT ATTRA
 - <u>Forage Production for Pasture-Based Livestock Production</u> Cooperative Extension System
 - The Accrued Benefits of Adaptive Grazing Soil Health Academy
 - Goats
 - Goat Production Kentucky State University
 - Goats: Sustainable Production Overview National Center for Appropriate Technology (NCAT)'s Appropriate Technology Transfer for Rural Areas (ATTRA)
 - Improving Profitability: Sheep, Goats, and Cattle NCAT ATTRA
 - <u>Tips for Marketing Sheep and Goat Products: Vegetation Management Services</u> - NCAT ATTRA
 - KGPA | Kentucky Sheep and Goat Development Office
 - SRPS Small Ruminant Profit School
- Value-added Product Resources
 - KDA's Kentucky Farmers' Market Manual and Resource Guide
 - Kentucky <u>Homebased Processing and Microprocessing | UK Family & Consumer</u>
 Sciences Extension
 - Commercial Food and Cosmetic Manufacturing in Kentucky: A Starter Guide