



Photos courtesy of farm's Facebook page

# ENVIRONMENTAL BENCHMARKING

## CASE STUDY: Shelterbelt Farm

Erica Frenay, of Shelterbelt Farms in the town of Caroline, on the southeast hills from Ithaca, is a powerhouse of knowledge and perspective. She manages their farm, with help from her husband and children, in producing mainly grass-fed livestock and various poultry species. Rotational grazing of these animals, or “flerds” as she fondly refers to them, happens primarily among the partitioned twenty-five-acre farmstead. Some additional rented land is also used as part of the rotational grazing plan. In addition to raising livestock, they also sell eggs, ginger, honey and other value added products.

Erica and family purchased the overgrown and abandoned farm acreage in 2005. It had been idle for at least thirty years. The challenge of this property was that it was overgrown with weeds, brush and thickets, so much so that one could not easily walk the land. There were many “wet” spots and moss-laden surfaces. The pH of the soil was below 5, quite acidic for what is commonly used for crops and decent grazing. Erica places high value on soil health that includes maintaining strong and variable vegetative cover to allow for deep and abundant root growth. Since those early days, the farm has seen some significant improvements. Soils are deeper, with desired plant and tree life becoming more of the norm than the exception. This is because it is a labor of love and intentional drive, that of improving the land so that it supports a variety of species, from fish to birds to plant life, with water management as part of the cornerstone of planning. One gets an immediate appreciation of the intentional effort and determination, as well as the learning by

### Farm Details



**MUNICIPALITY:**

Brooktondale

**FARM SIZE:**

25 Acres

**PRODUCTS:**

Mixed Livestock  
Specialty Plants  
Value Added Products

**PRACTICES:**

- Conservation Stewardship Program
- No Till
- Cover Crops
- Rainwater Runoff Containment System
- Field Drainage by Ditches
- Field Retention Pond
- Rotational Grazing / Management
  - Intensive Grazing
- Silvopasture
- Windbreaks
- Fuel Efficient Vehicles
- Insulated Buildings
- Solar Hot Water

**MOST PROUD OF:**

Management Intensive Grazing

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doing model that has refined her ecological perspective.

Shelterbelt Farms provides a host of ecological and ecosystem benefits that may be overlooked if you are captivated by the rolling hills of the Ithaca area landscape. Foraging and grazing animals provide important soil fertility in the form of manure, and the “pruning” of various grass and weed species, promotion of desired species which in turn can contribute to increased soil root growth and water holding capacity. In droughty years, water holding capacity is essential for pasture health and regenerating on-farm ponds. The diversity of plant and tree life is impressive.

Water management is a priority for Shelterbelt farms. Whether providing directional flow, improving the soil’s water holding capacity, or by keeping water “on-farm” via the construction of holding ponds, Erica is determined to keep as much water on site as possible to add to the diverse ecology of the farm. Not only does water add an important dimension to their farm’s ecology, keeping it on-farm serves to protect against erosion, and the washing-off from the farm into the Six-Mile Creek Watershed. This is an important contribution since the watershed is a critical water supply for the Ithaca community.

Not only does Erica spend a great deal of time on the farm, she also works off the farm as an educator and resource for the Cornell Small Farms Program. Evolving and learning is part of the farm’s success. Keeping the perspective of building the farm from the ground up is very evident philosophy of Erica. Her appreciation for the key role that healthy soils and diverse ecology play for the long term success of their farm will undoubtedly provide resilience to the sometimes extreme weather events and changing climate the Ithaca area experiences.

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