

# Woodlot to Woodcraft

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## The Best of New England Tradition : A Community-Based Enterprise

In 1997, D Acres of New Hampshire, Organic Farm and Educational Homestead, began as an educational center with the goal of utilizing our local resources to recreate a strong community with a viable, sustainable economy. We aspired to create a model of a farm-based community that could be replicated by farmers, entrepreneurs, producers and consumers in other rural areas throughout New England. Our vision was to connect people with the skills and resources that would empower us all to define our livelihoods and protect our environment through mindful long-term investment in a sustainable system. We knew that the farm system would only succeed economically if we directed our efforts to educating neighbors and consumers on the value of buying locally made and environmentally sound goods and services. D Acres became a tax-exempt, nonprofit organization and began to offer workshops, internships, plant walks, and to offer information about our programs and projects through our website.



The 180 acres in Dorchester has been in Executive Director, Josh Trought's family since the 1940's. His great uncle Del and great aunt Edith believed that the land should be protected from the development that they saw infiltrating rural communities in New England. Though they had jobs off the farm, they also had a large garden, tapped maple trees, utilized oxen to clear the upper meadow, and Del milled butter-nut trees to build Shaker furniture reproductions for their house. Edith practiced many traditional skills such as weaving, knitting, rug making, and excelled in decorative arts painting, which she taught. They both saw themselves as lifelong learners who like all wise elders shared their knowledge with oncoming generations. Their legacy continues with the philosophy of utilitarian land stewardship and life long learning embodied in D Acres of New Hampshire.

In rural New Hampshire towns like Dorchester, the forest has been a significant part of the economy for hundreds of years. Since the days of the settlers, the forest has been cleared for lumber, pasture, and charcoal. With mechanization came the capacity to clear vast tracts quickly, removing only the materials with high market value. Once the valuable lumber had been extracted, logging companies moved on to the next viable area. This strategy produced a substantial amount of revenue at one time, but required decades for trees to grow back. A sustainable forestry plan, in contrast, utilizes the interest, not the principal, of our investment in the forest. This ensures that dependent species of birds and woodland creatures do not lose their habitat; mature roots hold the soil in place; leaf litter falls to the ground, each year providing mulch to fertilize the forest floor; and the forest remains, year after year, a renewable resource for the surrounding community.

The wood-crafting project at D Acres begins in the 150-acre woodlot that surrounds our buildings, gardens and cultivated orchard. The forest is 3rd growth mixed hardwood and softwood on a sometimes-steep north-facing incline. The history of logging on the property has left a scar of a road leading up the hill, with shoots running off to access the rest of the property. The large trees by the side of the logging road still show signs of the skidder that came through time and time again with loads of lumber. Even Josh's family succumbed to the instant gratification of extensive mechanical logging decades ago when they needed money to pay the taxes and send their daughter to college. The forest was left to return to its never-ending cycle of re-growth and suc-

cession, but neither the family who lived there, nor the surrounding community, benefited from the wealth that such a forest can contribute year in and year out.

From the start of the D Acres project, the forest was envisioned as a resource to be utilized actively, and wisely, for the betterment of the community and the generations to come. Our efforts to responsibly manage the woods began with a forest stewardship plan that emphasized evaluating the soil erosion situation. Through remediation efforts we learned the cost of not implementing proper erosion control. The plan also focused on reforestation and the promotion of desirable species in areas like the substantial sugarbush (an area where the growth of sugar maple trees has been promoted for use in making maple syrup). A medicine trail has been created with plants including ginseng, black cohosh, blue cohosh, and goldenseal in order to protect the diversity of species with whom we share this land. The at-risk and endangered plant sanctuary is designed to educate visitors on the effects that consumer demand can have on species of medicinal plants. Low-impact recreational trails have been established and maintained to allow for exercise and educational woodland plant walks led by our horticulturalist.

Our forest steward plan also calls for selective cutting. Josh instructs learners on the sustainable forestry project. The first step in the process is to know the trees by their bark, their foliage, and their growth habits throughout the year. Josh has spent years studying the trees that grow in this region and is provided with support by a Board member who is engaged in forestry on a daily basis. A whole section of the library in the community building is devoted to books acquired for tree and woodland plant identification. Knowledge of the species (their benefits to the woodland critters; their indication of the maturity of the forest, the soil, and climate changes; and their value for woodworking, construction and crafts) contributes to a holistic understanding of the ecosystem. Generally, when an area is clear cut or severely damaged by violent weather such as an ice storm, many trees begin to grow back at the same time. The large number of trees competing for the same resources stunts the growth of the entire stand. Selectively cutting a tree here and there allows the surrounding trees to receive a greater proportion of the available sunlight, water and nutrients from the soil, speeding up the transition from frontier to mature forest.



Selective cutting also produces valuable resources for the farm and organization. Hardwoods are typically used for indoor heat in this region. In parts of the world that have only conifers, softwood is burned in the woodstove. In New England, however, we have a larger range of trees. Softwood burns hotter and quite rapidly (which makes it well suited to boiling down sap and for use in outdoor ovens), but creates more creosote. Small diameter hardwood is used for cordwood construction and round-wood furniture. Softwoods are selected for use on construction projects at the farm and to make fence posts for our pastures. The saw logs, rot-free trees with substantial girth and minimal branches, are cut into eight-foot lengths and brought to depots for pickup to be milled by a neighbor. Upon returning to the farm, the dimensional lumber is carefully stacked in a shed with sticks between each layer to allow for the passage of air. The green wood is left to dry for up to three years, then further dried to a workable moisture level indoors and utilized for wood crafting in the woodshop.

### **A Sustainable Future Builds on Wisdom from our Past**

Another aspect of the process that truly connects us to the past and differentiates us from logging operations today is collaboration with draft animals to haul wood. Our team of Jersey oxen, August and Henri, have lived



at D Acres for nearly three years. “The boys” are creatures of habit, well accustomed to the duties assigned to them. Farm Manager Abby Holm, their teamster, walks by their side combining a word and a touch of a stick to encourage them in the right direction.

We are not hesitant to utilize the pulling power that August and Henri can contribute around the farm. Their many tasks include bringing rocks from the woods to our new building sites by dragging their laden stone boat; pulling an old bedspring through the snow in winter to groom our cross-country trails; hauling a cart of their manure and soiled bedding to compost piles around the farm twice a week; pulling loads of brush to the chipper; and dragging logs through the woods to depots set up to temporarily store the various types and sizes of wood.

August and Henri provide more than brute force. Their steady supply of manure, composted with other farm debris, provides an excellent fertilizer for our gardens. Their gentle, sweet-hearted licking delights visitors and lets us know that we have successfully encouraged them to trust and enjoy the company of people. Tourists coming to the region love to see the New England tradition of using draft animals on a working farm. In a state like New Hampshire, income from tourism is substantial. Our economy requires not only that we maximize the revenue associated with the influx of visitors, but that we preserve the aspects of rural New England that attract tourists: the trees whose autumnal colors draw leaf peepers from afar, the rustic barns, the sap houses bustling in March to produce maple syrup for the year, and the fields dotted with pastoral ruminants.

The oxen bring simplicity to our farm system in stark contrast to the mechanized state of agriculture today. Their hooves do not compact the soil as many large machines in the woods do, leading to erosion and damage to the forest. Although the logs they drag through the woods do leave their mark, the damage does not compare with what the wheels of a heavy skidder will do. Their parts do not need to be serviced, nor do they require petroleum products to make them run. Hay (purchased locally), pasture in season, a salt lick, and water meet their daily needs.

The quiet charm of the oxen does not come without a price. There are vet bills and hoof maintenance to pay for, they have a limited lifespan, and an injury in the woods could destroy the whole investment, while at the same time causing grief for those that have known and loved them. “The boys” each consume a bale of hay every day during the six or seven months when pasture is buried beneath the snow. Though we utilize a no-till agricultural system at D Acres, the hay we purchase for them is harvested and prepared using an oil-intensive tractor and a baler. Providing grass for the team means that we must devote large areas to pasture onsite, rather than maintaining forest or utilizing the areas for gardening. In order to reduce our dependency on outsourced hay, we continue to clear areas that will serve as pasture.



Nor do the oxen replace all mechanization in the woods. A chainsaw is used to fell the trees, and a diesel chipper utilized to convert treetops and brush to woodchips for use as animal bedding, garden paths and for mulching blueberries. The use of fossil-fuel dependent machines is always weighed against the alternatives. Although chipping provides a great deal of organic material for the integrated farm system, the brush (burned or



left to create animal habitat) could serve a variety of useful functions without the necessity of a noisy, obtrusive and potentially dangerous machine. We chose to purchase a chipper that operates on diesel in order one day soon to replace the use of petroleum products with biodiesel. Sustainable forestry at D Acres entails not only improving the viability of the forest for the future, but also utilizing all bi-products of sustainable forestry for productive purposes on the farm.

### **Adding Value to our Natural Resources**

The wood that has been milled and dried is brought into the woodshop and transformed into furniture and small crafts. Our Wood-crafting Training Manager, Sam Payton, trained as a boy by his father, works meticulously to bring out the best features of the wood in his designs. He takes the time to share his knowledge, techniques and skills with learners of all abilities through our internship programs and workshops. Learners take the fundamentals that they have acquired during their time in the woodshop at D Acres and go on to produce their own cottage industry products. Sam's deep appreciation and respect for the materials that we work with make him an inspired advocate for conservation and the responsible use of renewable resources.

Smaller pieces of wood (waste products from furniture construction, prunings from apple trees, and scraps of cordwood) are the raw materials for small crafts produced at the farm. By creating a spoon from that small piece of wood, the value of the product is multiplied. Wooden utensils, hand crafted for a unique product each time, convert materials with a limited market value into high quality products. Birch bark frames and mirrors utilize the many layers of bark from dead birch trees to create a charming rustic aesthetic. The results are stunning. The handcrafted pieces produced in the workshop represent a holistic appreciation for nature and cooperative human interaction. They demonstrate a devotion to a set of skills, from sawyer, to teamster, to craftsman, with room for learning, experimentation and interaction with other parts of the farm system. Just as importantly, by completing the entire process onsite, vertical integration ensures that middlemen along the way do not appropriate the profit of our work.



Onsite production, from start to finish, is a model that has long been abandoned by the globalized marketplace. Mainstream free trade theory dictates that the commodities that we need should be purchased as cheaply as possible from wherever in the world they may be available. This theoretically ensures that the consumer will get the best price for the product that they are buying because global competition will keep producers and middlemen from charging more than the market will pay. In order to make prices competitive, specialization is required.

However, a study published in 1993 by Stefanie Boge of the Wuppertal Institute in Germany found that the production of a container of strawberry yogurt required 3,494 km of road transportation for each specialized component to come together, and once combined, reach its destination at the supermarket. The drawback to this theory of trade is that the environmental cost of such transportation is not accounted for in the commodity price. Though the real price of the quartz sand to make the jar, the paste for the label, the paper and the aluminum

from throughout the EU were no doubt the cheapest available, the cost of the transportation reflects only the cost of the vehicles, the labor and fuel. There is no payment made for the air and noise pollution, damage to roads, accidents, congestion, and increasing reliance on transportation for the basic necessities of life.

Specialization, created in order to compete effectively on the world market, also destroys self-sufficient diversified economic systems and communities. This makes them reliant on the global economy (subject to collapse) unlike a strong local economy, backed by a community of people that know and depend on one another. Combining local production and consumption not only reduces the transportation costs of moving raw materials and goods from place to place: a local system also connects the consumer with the resources that go into making a product. Understanding the local resources utilized in production enables us as consumers to use our purchasing power to advocate for the kind of environment in which we wish to live. We cannot continue to clear forests for their wood or suburban development and expect that the renewable resource will persevere. As stewards of the land, we cannot think of the forest as a resource to be converted to currency, but as a living ecosystem (of which humans are a part), that must be respected and conserved for generations to come.



The wood-crafting program at D Acres has taken many years to develop. The production process involved the development of people, knowledge, skills, and infrastructure. The prerequisites were an understanding of the different types of trees, the soil, the equipment, the topography and natural corridors of the forest, and the relationship built with August and Henri. All required study, patience and perseverance. We designed buildings to house a workshop and for storage of drying wood; developed pasture and outbuildings for the oxen; purchased equipment for the each stage of the process; and invested in people that believed in the premise that their skills might be used in collaboration with nature. Finally, with a product that reflected an appreciation for the resources and the process, came the need to market that product to the public.



Finding a market for a product requires the active involvement of the consumers themselves, especially when the product represents a holistic philosophy. Consumers must be educated to appreciate the value of the principles that drove the craftsman, farmer or artist. If, as consumers, we consider only the functionality of a good or service, then the process of making it does not

matter. But if we care about the men and women that collaborated to produce that object, how the good was produced in terms of sustainability of resources, and the transportation costs involved in production, we will have no choice but to be more discerning. What we purchase indicates our support of local production, traditional craftsmanship, a living wage, a strong rural economy, collaboration, and the conservation of our renewable resources for the future. We must understand the difference between quality locally made goods and those produced generically without regard for craftsmanship.

The consumer who grows to value the difference will choose quality over inferior generic quantity. They will support the small farmer or cooperative that operates based on a holistic philosophy that combines respect for the environment and commitment to the local community. They will realize that they want to support a farm system based on available resources that strives for regional self-sufficiency. They will value a culture that

provides the necessary articles of life close to home and that invests in learners with an appreciation of their potential as the next land stewards and craftspeople. The consumer will express their desire for these things in defiance of what we all have seen is the alternative: a world of meaningless possessions, waste, cultural and economic poverty, planned obsolescence, and environmental degradation.

Trust built between consumer and producer will discourage the habit of looking to underpaid third world laborers to provide us with cheap, disposable goods. Local infrastructure will be re-built based on the resources that we have cultivated. Production will shift from external to a community-based economy that supplies food and necessary commodities. Ethically, and for long-term economic survival, the United States must produce, with our own resources, what we consume. Only in this way will the pattern of exploiting other nations subside. We must look within to stop the destruction abroad. When these practices have had a chance to take hold, when the wave of disposability and support of corporate greed has passed, communities will once again become strong economic and social entities. The future is in our hands. Act locally.

To learn more about programs, products and educational opportunities available at D Acres of New Hampshire, please visit [www.dacres.org](http://www.dacres.org).

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