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Fall Appeal

Inspiring an Attitude
of Experimentation

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Tillers International,
A program of
Rural Futures
International, a non-
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Dear Friends and Students,

The other day I was reminded that **this is the 31st year** in which I have asked people to join Tillers' effort, to become engaged in rural development, to financially support the work of Tillers. I plan to continue asking for the next decade. Never have there been more opportunities to draw Tillers into the future. Rarely have there been more hurdles threatening to slow the effort. After all these years, we still need you and very much enjoy working with you.

Beginning in 1981, Tillers' first decade was invested in re-learning the details of draft animal farming. In the 1990s at the Abbey Farms, we gained experience and effectiveness in teaching farming with oxen and horses both here and abroad. In the most recent decade, with your help, we have scaled up teaching with much better facilities here at Cooks Mill, a broader outreach, and many more students. **We started the last decade teaching hundreds of people each year and ended it teaching thousands** – mostly in Africa.

Tillers' Board is now envisioning strategies to take Tillers to 2020. In the next decade we want tens of thousands of farmers to discover new levels of productivity with their oxen or horses. We expect them to face new challenges as tropical weather becomes warmer and more erratic. We plan to help re-invent farming practices to better meet these challenges. We also plan to install a new generation of leaders with a strong network of future support.

Sometimes we hear Tillers introduced as a group of people who farm the old way. We know that is usually meant with respect for the old ways of farming. Yet, we can do better. **Tillers is really about change**—innovation and re-invention of low-capital farming practices. Our goal is not to defend the moldboard plow, it is to find practical and inexpensive ways to improve on it. By seeing ourselves as Tillers—people tending the soil—we can underscore our dependence on environmental investments needed in our water and in our soil. Our mission is much bigger than making horseshoes!

Probably our most global challenge will be limiting greenhouse effects and maintaining soil fertility as populations grow. **We need to move a surplus of carbon from the atmosphere into the topsoil** where it can contribute to productivity. Increasing the organic content of soil is the fastest, most practical way of sequestering carbon. Tillers can help with this. Animal-powered farming can inexpensively address the work required by such a broad-based effort. Jason Bradford (Farmland LP and Post Carbon Institute) argues that intensively stocked rotating pasturing is the quickest way to build up organic matter in the soil. Tim LaSalle (formerly of Rodale and Holistic Management) says that the integration of livestock and cropping can be the surest way of building the carbon content in soil. Howard Buffett of the Howard G. Buffett Foundation sees ox-powered biological no-till as the most practical way for Africa to build its soil and its agriculture. We can help thousands of lead farmers to hone the practices that will convert these principles into more fertile soil.

Building soils will be different in every eco-zone. Facilitating the spreading of composted manure from a sled or spreader pulled by a pair of oxen will not take much creativity. **Developing low-cost no-till systems that build soil organics without herbicides will demand incredible creativity.** In Pennsylvania, this system of building soil and controlling weeds without herbicide or chemical fertilizer has tripled the organic content of the soil in a few years. Now, that soil yields over 160 bushels of corn per acre. That is about 5 or 6 times the yield harvested by most African farmers. A few weeks ago, I was in South Africa helping match ox-drawn tools to this task at the Ukulima Research Farm. Biological soil building will bring a great step toward more productive farming for the African small holder. We need to find green cover crops for each eco-zone that can be grown densely, knocked down with a crimper, and killed without the expense of an herbicide. We need to convert the cover into a weed-choking mulch. Then we can no-till plant crops into the mulch which will decay into a richer soil as it controls the weeds.. This quest for the “holy grail” will take a lot of experimenting and adaptation. Such a system must be fitted to each set of local weather patterns. We may have to fence the goats before we raise a pre-season cover crop for mulch. Before long, we must get the system out from under the central pivot irrigation of research centers and into small farm circumstances.

Here at Cook’s Mill and Tillers’ Learning Center, **we have been composting manure and growing green cover crops to improve a very light and sandy soil.** This year, Dulcy, our Farm Coordinator, has been regularly pasturing a lush cover of red clover that was planted into our wheat field. This promotes the growth of root mass and fixes nitrogen. A clover plow down with added compost grew our open-pollinated corn to 11 feet tall. Its yield was up nicely even though the raccoons considered it their private reserve. We are experimenting with no-till without herbicide so we can further accelerate soil building in our corn field. By increasing the experimental measurement conducted here we enrich learning opportunities for interns and students.

With the increasing popularity of our grass-fed beef, **the land is contributing more to farm operations and revenues.** We make a good share of the hay with the oxen and horses pulling modern equipment that helps us put quality hay into the barns. Part of our strategic planning is determining when we can return to the goat and cow dairy development that we considered before the economic downturn of 2008. Tracking milk yields and caring for animals would add an important dimension to our Learning Center. The breeding of goats happens so quickly that it would illustrate for students the methods and benefits of selective breeding in short order. We now have 3 ½ hay barns and most of the livestock that we would need. We need to find the funding to surmount the hurdle of milking and processing facilities.

Tillers' reputation for working skillfully with draft animals and with small farmers is opening many partnerships with other organizations. We see partnerships as an effective way for us to spread the benefits from our knowledge base. In two months late this summer, in addition to our scheduled classes, 12 organizations working overseas came by Tillers' Learning Center in search of information and advice. We try to turn each of these visits into a learning opportunity. They may last 2 to 6 hours. Most of these groups are small and cannot afford to send one of our staff to their project sites. We need to be able to load them up with more instructional publications and how-to video productions. Our YouTube video clips have been watched 200,000 times in only a couple of years. By adding an informative sound track we would make them into educational videos of much greater value. Such resources would expand partnerships at minimal costs. The needs of an increasing number of groups wanting to tap into our knowledge could be answered more effectively.

We must stretch our abilities to send staff and volunteer instructors overseas to provide direct training of trainers. They accomplish incredible work. Brian, John, and Rob have worked with our local staff in Mozambique this year. I have worked in Ethiopia and South Africa. Brian and John helped in Zimbabwe. Next year we hope to double our training from nearly 2,000 trained this year in a second phase of the collaboration with Land O Lakes International Development and USDA. The local trainers have been doing great work in the village-based sessions. In the next phase, we will reach out to provinces beyond Manica. We will also increase the training into new practices. We need to be taking volunteers and interns on each of these trips to broaden Tillers training capacity for the future.

Re-inventing farm tools should be a larger part of Tillers' work. The Museum is such a powerful source of inspiration to designers. We have practical design skills, fabrication facilities, and testing opportunities in several environments. My trip to Ethiopia for DKA Austria showed the importance of re-inventing the early grain reaper to make wheat, barley, and teff harvests much more efficient there. Ox-drawn reapers could replace the sickle as the base for many small rural service enterprises. For others we have been asked to design a better peanut lifter and a bean cutter. Project Mercy in Ethiopia could put a farmer/vocational teacher team to excellent work at their school. The artisans around Tillers' Center in Mozambique eagerly learn from volunteers like Dave Kramer who went to teach ox-cart building

and other skills. Brian Webb has guest rooms waiting for more short-term guest instructors. We need a little more support so we can give follow-up international field experience to our best interns. They frequently have important skills to offer and potentially years in which to share them.

Maintaining Tillers' growth during the last three years has been difficult with limited contributions, and it does not appear that the economy will enjoy a rapid recovery. If our work is important, we need to find ways to move it along even in hard times. We need a base of regular contributions from members and donors plus special gifts and bequests. We just received a \$20,000 gift in honor of Jacob C. "Jake" Stucki that will help finish the timber-framed granary building. Special gifts help us grow while regular gifts keep the doors open for the next guest.

Please help strengthen Tillers.

- Tell others about Tillers' work or send them a link to our great website.
- Buy them a gift certificate toward a class (call 1-800/498-2700).
- Become a member (Life, Patron, or Supporting).
- Purchase great tasting, grass-fed Shorthorn beef.
- Volunteer a special skill or help in keeping up facilities.
- Support the training program by taking a class.
- Include Tillers in your estate planning.
- Give a donation for operations, new initiatives, or improvements.

Let's strengthen Tillers before handing it on to the next generation!

Thanks for all the years of helping,



Dick Roosenberg

PS: For those of you in Michigan, a 50% tax credit is available for gifts to Community Foundations. Contributions of up to \$400 will qualify when given to Tillers Growth Fund, an endowment account at the Kalamazoo Community Foundation. Call Tillers for details. This is the last year the credit will be available.

