
Working With Animals

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NEWSLETTER ON ANIMAL HUSBANDRY IN THE THIRD WORLD. When people contact ECHO with questions on animals in development, we usually refer them to Heifer Project International (HPI), a group which specializes in that area (much like ECHO "specializes" in plants). If your outreach into the community includes working with animals, you will find the *Heifer Project Exchange* to be an excellent complement to *ECHO Development Notes*. The 4-page newsletter (now also with a 2-page insert called "Women in LivestockDevelopment") is sent four times a year at no charge to development workers in the third world. They wrote that "we are happy to send it to those involved in livestock production projects upon receipt of their addresses and a description of their work." I am sure they would send it to others for a small donation to help cover expenses.

The *Exchange* shares with ECHO a determination to make available sufficient information so that you can act on what you read. I have not found tantalizing articles that leave me frustrated because the key practical information or address has been omitted. Articles are a mix of practical information and techniques with occasional comments providing perspective on a particular question. They also direct you to reprints, publications, and conferences on animal-related topics.

Let me pick some items from some past issues: "A goat medicine cabinet" suggesting medications that should be kept on hand by those working with goats; announcement of an upcoming seminar on beekeeping; a discussion of Caseous lymphadenitis in goats; plans for a manure-heated brooder; a method for pasteurizing milk on a small scale; midwifery for shepherds; lambing supplies check list; design for a Zimbabwe fly trap.

I especially appreciate the section called "Practical Materials which Readers May Find Useful." This is a very brief summary of articles that have come to their attention. In most cases they will send a free copy upon request from readers. If you would profit from the *Heifer Project Exchange* or want to receive Heifer's full publication list on development and livestock manuals, write to the editor Jerry Aaker, Heifer Project International, 1015 S. Louisiana, P.O. Box 808, Little Rock, AR 72203, USA; phone 501/376-6836; fax 501/376-8906. (https://cdn.ymaws.com/echocommunity.site-ym.com/resource/resmgr/a_to_z/azch9wor.htm#Table)

LIVESTOCK FOR A SMALL EARTH: The role of animals in a just and sustainable world. Ed. by Jerry Aaker, 111 pages. The authors are all staff at Heifer Project, which provides technical training, livestock, and organizational assistance to rural community groups in developing areas. They present a theory and process of sustainable rural development which includes animals in the system because of their many benefits to the small farm family. Dotted with insights and case histories from HPI's fifty years of experience around the world, the text is a readable blend of facts and ideas. Emphasis is on the ecological and social facets of the work, although the book also provides practical suggestions for the beginner in village-level sustainable animal agriculture. It includes ideas developed by HPI such as "passing on the gift," in which recipients of female animals are required to give an offspring to another family in the community, and its implementation in several cultures.

There is an extensive bibliography on sustainable agriculture, rural development, and technical manuals on animal husbandry and related topics. This is an extremely useful book for a broad spectrum of people, from development workers to policy makers, who want to understand the key role of livestock in both the tangible and intangible sides of community development. Further information about HPI and copies of the book (send \$10; includes shipping) are available from Heifer Project International at the above address. (https://cdn.ymaws.com/echocommunity.site-ym.com/resource/resmgr/a_to_z/azch9wor.htm#Table)

TRAINING IN ANIMAL TRACTION. Don Mansfield in Mali asked where he could get training in animal traction. We can recommend a good book, *Animal Traction* by the Peace Corps (245 pp., available for about US\$40 from ERIC Document Reproduction Service, EDR/CBIS Federal, 7420 Fullerton Rd., Suite 110, Springfield, VA 22153-2852, USA; phone 800/443-3742 or 703/440-1400). However, the subject is so complex that hands-on experience would be a great help.

Tillers International offers training in animal power, blacksmithing, woodworking, and international rural development. The goal of Tillers is to develop low-capital rural technology, including animal-powered agriculture, along with metal and woodworking support skills, so small farmers can achieve self-reliance. The program director, Richard Roosenberg, spent three years working with oxen as a

Peace Corps volunteer in Benin. The program maintains a considerable interest in Third World applications. They have workshops, internships, and specialized training for North American and international students who want to receive hands-on instruction and opportunities for low-cost research in these fields. Tillers also studies and modifies designs and publishes a technical newsletter called *The Tillers Report*; subscriptions are \$25 for 2 years, and 15 backsets are available for \$25. Write for a current publications list, which includes full-scale yoke construction plans.

Workshops (1-5 days) and international development courses are given February through December on topics such as the following: ox driving and training, rope making, blacksmithing, woodwrighting, agricultural tool making, selection and care of oxen, draft horse use, animal-powered field work, sustainable pasture practices, building rural infrastructure, draft logging, road building, sweet sorghum molasses, timber framing and barn raising, etc. Tillers also has a highly competitive internship program which runs for 3-9 months from April through November. Interns are paid according to experience and skills. Write Tillers International, 5239 South 24th St., Kalamazoo, MI 49002, USA; phone 616/344-3233; fax 616/385-2329. (https://cdn.ymaws.com/echocommunity.site-ym.com/resource/resmgr/a_to_z/azch9wor.htm#Table)

TECHNICAL NOTE ON OX YOKES. Tillers International also has a series of TechGuides. Titles include: Full-scale yoke plans; Hay baler construction plans; Training young steers (\$3); Selecting and pairing oxen (\$3); Advanced training of oxen (\$8); Slip-scraper construction and operation (\$4); Animal-driven shaft power (\$4); Measuring draft power (\$2.50); Bricks, brakes, head yokes for restraining loads behind oxen (\$1.50); Wood-framed harrow (\$2.50); Manual hay baler (\$3.50); Simple forecart design (\$1.50); and the MOP over-the-row weeder (\$3). Postage is \$2 per order. Order from Tillers at the above address.

One 10-page technical note is called *Tillers Tech Guide: Neck Yoke Design and Fit, ideas from dropped hitch point traditions* (\$3). ECHO claims no expertise in this area. But this appears to contain the kind of practical, applied, and well-illustrated information that might be helpful to you. I quote from the introduction.

"I was struck by the importance of yoke fit and design when training the first pair of oxen at Tillers. I had worked with a number of pairs in West Africa... I began training with a simple yoke like I had used in the African project. It had a pole for a beam, steel rods for bows, and a clevis extending behind the beam for hitching. After a few weeks the team pulled a stone boat willingly, but if I stepped onto it, they would stop.

"Then I placed an historic yoke on the team. They did not mind its extra weight and readily pulled the stone boat. I stepped on and they continued to pull without hesitation. A second person got on and the team still pulled. It took the weight of a third person to discourage them. I was amazed that changing the yoke permitted adding about 330 pounds (150 kg) to their load. I immediately started analyzing that old yoke and reading...about traditional yoke design and dynamics. Obviously these yokes were superior in some simple ways."

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AN EXCELLENT RESOURCE FOR FORAGE SEED AND INFORMATION. I have found folks at ILCA (the International Livestock Research Centre for Africa--see note below) in Ethiopia to be unusually eager to help, including taking the initiative to get information to us at ECHO. I wrote to Dr. John R. Lazier, forage agronomist, asking if folks who read this newsletter would be able to request small quantities of seed. I realize that few of you are with research organizations or large programs of any kind. He replied, "ILCA does provide seed in small quantities to requestors, and your readers would be no exception." If you are doing a serious search for better forages for your region and cannot find seed for a particular forage plant, you might contact them for a small packet of that seed.

"ILCA is collecting germplasm of potential value to small farmers for cut-and-carry, grazing, browse and dual-purpose use (food and fodder)." They are especially interested in leguminous forages. They also publish a forage research newsletter (about 30 pages each), but this is quite technical and would only be of interest to the few of you who do a lot with forages.

Two International Agricultural Research Centers merge. The International Laboratory for Research on Animal Diseases (ILRAD) in Kenya and the International Livestock Centre for Africa (ILCA) merged in 1996. The new entity is the **International Livestock Research Institute (ILRI)** and will be located in both Kenya and Ethiopia. The addresses are P.O. Box 5689, Addis Ababa, ETHIOPIA and P.O. Box 30709, Nairobi, KENYA.

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WINROCK INTERNATIONAL MAY BE ABLE TO ANSWER SPECIFIC QUESTIONS ABOUT LIVESTOCK. If something comes up in your work that you cannot answer, this free service by Winrock can be quite helpful. Some of the more frequently asked questions have led them to prepare Tech Notes on the topic. These 2-4 page notes are available in English or Spanish, at no cost to development specialists. Topics to date are: Protein sources for swine in the tropics; Alternative feeds for pigs in the tropics; Mammalian coccidiosis; Internal parasites in sheep and goats; Poultry and salmonella; Colostrum for the newborn; Vaccination and the Needle; Diarrhea in young livestock; Stocking rates in the tropics; Facilities for rearing young stock; Feeding the lactating female; Selection and management of replacements; Methods of animal identification; Establishing an artificial insemination service; and Techniques for feeding young ruminants. Their address is 38 Winrock Drive, Morrilton, AR 72110, USA.

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WORKING WITH TRADITIONAL HERDERS. H.P. and Nancy Harmon work with people in the Transkei who are traditionally herders and whose first love is animals. Population pressures have forced the people to turn to cultivating the land, much of which is eroding badly.

H. P. wrote that they start with the proposition that it is acceptable to raise livestock. Rather than entice people away from raising livestock, they first work with kinds of livestock that, with careful control, have little negative effect on the environment compared to herds of grazing animals: chickens, ducks, geese, pigs. "After people

have these animals and are successful with them, then we are able to talk about the other animals (sheep, goats, cows, horses, donkeys), what is a sustainable stocking ratio, etc.

"We are able to increase farmers' interest in agriculture by having them plant some crops specifically to benefit their animals (e.g. comfrey, leucaena, winter oats). We are also able to talk about planting trees for soil stabilization and nitrogen fixation as side benefits from [their primary concern] for planting trees for forage.

"This is slow work, but we seem to be successful where others have failed because we accept people's right to prefer raising animals to cultivated agriculture. The ironic thing is that having accepted that fact, we now find that their interest in improving their agricultural methods is growing quite fast. I think this is because the benefits also extend to their animals and because they see that we are not trying to replace their animals with cultivated agriculture. ... the environment is slowly being brought back into balance as well. People are raising more small stock, which hardly ever overtax the land, and planting more trees so that the amount of fodder available is constantly increasing." (https://cdn.ymaws.com/echocommunity.site-ym.com/resource/resmgr/a_to_z/azch9wor.htm#Table)