



Dladie Village Shepherds in Mali, West Africa

A Winrock International Farmer-to-Farmer Project

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Judy Moses and her husband Larry Jacoby operate a 140 acre farm with 400-500 sheep and goats in northwestern Wisconsin. Judy and Larry have participated in the Farmer-to-Farmer program funded by the United States Agency for International Development in both Ethiopia and Mali since 2006 for a total of 6 projects. Judy received the Volunteer Impact Service Award (2011) from the Volunteers for Economic Growth Alliance (VEGA) for her work in Mali. Judy and Larry have been involved in the sheep industry for over 20 years and direct market USDA pasture-raised, antibiotic-free lamb and kid meat to families and restaurants: www.shepherdsongfarm.com They have also been involved in humane slaughter processes and religious slaughter research for 10 years with Dr. Joe Regenstein, Cornell University: www.spiritofhumane.com

Winrock International Farmer-to-Farmer Program: The Winrock's John Ogonowski and Doug Beruerter Farmer-to-Farmer Program fields approximately 200 volunteers each year to assist farmers, agribusinesses, and local organizations worldwide. Under this program, skilled U.S. volunteers provide expertise in a wide variety of areas, including agricultural sciences, farming, and agribusiness: enterprise development, marketing, international trade, food processing, credit and financing, training, organizational development and renewable energy.

Since 1991, more than 4,700 volunteers have completed 2 to 6 week technical assignments. Winrock's Farmer-to-Farmer Program currently operates in several countries across West Africa, East Africa, Asia, and the Caribbean Basin. Winrock also implements the Middle East North Africa Farmer-to-Farmer Program in Egypt and Lebanon, in partnership with ACDI/VOCA. Program funding from the United States Agency for International Development (USAID), through the Food for Peace Program under the US Farm Bill, covers volunteer travel expenses and makes the program possible. Winrock International is a nonprofit organization that works with people in the United States and around the world to increase economic opportunity, sustain natural resources, and protect the environment. Headquartered in Little Rock, Arkansas, Winrock maintains offices in Arlington, Virginia, and field offices in strategic global locations. It matches innovative approaches in agriculture, natural resource management, clean energy, and leadership development with the unique needs of its partners. By linking local individuals and communities with new ideas and technology, Winrock is increasing long-term productivity, equity, and responsible resource management to benefit the poor and disadvantage of the world. Volunteers find these assignments to be personally and professionally rewarding, helping people help themselves is a contribution that makes sense. www.winrock.org

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Dladie Village Shepherds in Western Africa

I am a sheep and goat producer from Wisconsin and although I have raised livestock for over 2 decades I still learn something new and amazing about sheep and goats every year. During the last few years a significant part of my learning has involved volunteer assignments in Mali as a participant in the Winrock International Farmer-to-Farmer program, funded by the United States Agency for International Development (USAID). What expertise does a mid-west sheep and goat producer have that is applicable to Africa? I have repeatedly asked myself that very question. My husband and I have struggled, just like other producers, with lambing deaths, balancing rations, pasture watering systems, cost controls, labor availability, implementing and maintaining appropriate conservation programs. Do my experiences transfer to such a faraway place as Africa? Do yours?

The Country: Mali is a land locked country, slightly less than twice the size of Texas (479,000 sq mi compared to 266,807 sq mi) with the Senegal and Niger rivers bordering the east and south. The upper half of the country lies in the Sahara desert including the ancient city of Timbuktu that once controlled the trans-Saharan trade routes. The economy of Mali is largely dependent on fishing and agriculture. The country's climate ranges from arid in the north to tropical in the south. There are 2 seasons. The wet season begins in September. The Dry season begins in April. Droughts are frequent. About half the population lives below the international poverty line of US \$1.25 a day. Today, after the end of many years of French rule, Mali has a democratic government and is one of the most politically and socially stable countries in Africa.

The Village: I volunteered at the village of Dladie, in the fertile, southern area of Mali, with a small producer cooperative. Although throughout the country's history, sheep and goats have been raised within a semi-nomadic tradition in the arid areas of Mali the farmers in Dladie are crop producers and raise livestock as a secondary activity. Family income is generated from maize, sweet corn, commercial seeds, shea butter, and a variety of hand-watered vegetables. Goats and sheep add occasional meat and milk to the diet but do not generate very much additional income. During the dry season the children are responsible for herding the community's flock into the countryside to browse and graze. Young lambs and kids are held back in the village until they are strong enough to keep up with the group. Branches are cut from some of the trees as an additional feed source.



Young shepherd managing wayward kids

Bucks and rams run freely with the open ewes and does resulting in uncontrolled breeding. Vaccinations or parasite control medication is expensive and not commonly administered as syringes and needles are also difficult to source and if available are often reclaimed from the regional medical clinic. Water in the village for drinking and cooking is from a hand-pumped deep well. Water for the garden is from an open ground-water well, hand-dug by young men suspended by a rope. This well is constantly maintained by hand but still frequently runs dry before the rainy season begins. There is no electricity or efficient transportation infrastructure in this region.

During our first meeting the cooperative members expressed the need to 1) improve their ability to raise and market live animals, 2) provide more milk for their children and 3) sell any extra at the new government milk collection centers.

Containers of hot milk on charcoal stoves

I was curious about the new milk collection center approximately 8 miles away. I asked: “How is milk cooled? How will it be delivered?” It is not cooled. It is heated and transported hot by bicycle or motorcycle to the collection stations. At the collection station the milk is maintained at a hot temperature. What is not sold is made into yogurt the second day. Cheese was not produced locally or common in their diet.



Since increased production and selling of milk were main goals, I asked: “How much milk is being produced now?” During the dry season, lactating animals that are herded the 4 or more miles to one of region’s shared drinking holes usually have enough milk to raise their single but raising a twin is less common. A few of the better producing does are hand milked for the benefit of the children but as the dry season progresses a significant amount of extra milk is unlikely. During the wet season water and nutrition are not problems and milk production increases significantly but livestock health issues and parasite exposure increase.

The members were very interested in improving their livestock and sourcing new breeding stock. I asked about their current breeding plans. With few exceptions, bucks and rams are kept intact and generally run free with the community’s larger flock. Could bucks and rams be controlled to the extent necessary to begin improving meat or milk genetics I wondered? With community grazing traditions 1 intact male could impregnate many open females.

The President of the cooperative ended the meeting hopefully: “Maybe we will have a new vision for our animals.” Best practices that are taken for granted in the U.S. did not look very promising here--even something as obvious and simple as always having fresh water available for lactating animals or controlled breeding. Back in the city, alone in my hotel room that night, I struggled with the question of what I had to offer this community. I had seen many challenges but not obvious solutions. How could I help this community develop a “new vision” for their livestock production and milk goals?

New Vision: When I returned to the village the next day we started thinking together of some possibilities. Over the next weeks many topics were brought up and discussed including:



- Quarantining new animals to lessen the spread of new disease to the flock as animals were frequently purchased from the city market and new breeding stock from a different region of Mali were desired.
- Monitoring for physical signs of parasites including strategies to lessen exposure.
- The importance of advocating for and taking advantage of government vaccination programs.
- Providing feed supplements to those with the greatest nutritional need (i.e., lactating) and income potential (i.e., young stock) and not to those with lower nutrition needs.

Long-legged, slender, desert sheep are adapted to heat and long treks for water

- The use of sunlight and removal of manure to improve sanitation especially for newborns, young stock and in night holding pens.
- Providing a private dropping and bonding area during late gestation.
- Practicing methods of visually and physically appraising the flock so that when one is appearing depressed, acting differently or lagging behind the group steps can be promptly taken.
- Retaining the best animals for breeding and culling inferior animals, instead of marketing the fastest growing first for quick income.
- Advantages of controlled breeding and choosing the male with the best genetics rather than leaving the decision to chance with adult males running free with the flock.
- Keeping basic breeding and performance records as what can be observed visually about an animal will not provide enough data for controlled breeding decisions.

Response to one of the more difficult to implement recommendations, that extra males be castrated or kept separate to improve breeding, resulted in a great deal of discussion on how this could be accomplished as intact males are of value in the marketplace: "...control is right....the Fulani (long tradition with livestock) have only 2 males in their herds....the rest are castrated....some males have strings tied to their penises (to prevent mating)..." I'm thinking: "mmm...maybe I need a demo on this..."



Intact ram approaching open ewes

Last Day: On the last day of the series of trainings one woman stated that at first she was shy about asking questions: "...I didn't know how to do so....but the group felt comfortable and happy.... I could finally ask my questions..."

Other comments included: "We didn't put our attention on our animals—now we will pay more attention."

"I didn't think of feeding (supplement to) just my pregnant females to save money."

The training was summed up by the statement of another: "...come back....we will show you how we listened....how we will apply this...even if I am called in the middle of the night to attend a training I would now hurry to do so..."

Many of us have challenges, similar to the cooperative members, to balance the needs of our crops with the needs of our livestock and to produce more income from less land resources. We all struggle to make the best management decisions concerning input costs versus marketing options. These are highly transferable problem solving skills. We may not realize how valued and special trainings are in the developing world or the wealth of information we may personally have to share.

Farmer-to-Farmer Volunteers: There are opportunities for Farmer-to-Farmer volunteers in a variety of areas such as honey, tomato, goat cheese and poultry development; home gardening, cattle breeding, feed formulation, soil fertility, irrigation, cooperative development and others. For more information about Winrock International's Farmer-to-Farmer Volunteer Program visit www.winrock.org



(Above) Proud producers of maize early wet season



(Above) Young goat escaped into field

(Below) Area watering hole is a gathering spot for many flocks



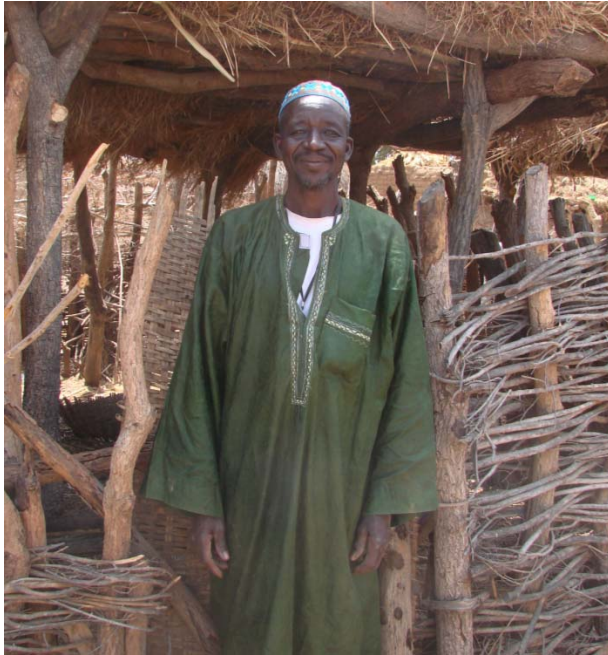


(Left) Woman drawing water for garden

(Above) Inside of hand-dug well

(Below) Village garden, note shea tree center, back.





(Above) Village member in front of night pen.

(Above) Children take responsibility for siblings

(Below) Village members in front of meeting room where trainings were held

