

# Multiplication: The Arithmetic of Sustainable Agriculture

**A harvest of honey...**

**the humble soybean...**

**a fast-growing tree...**



Liberian children benefit from the Sustainable Agriculture and Development Program. Credit: June Kim/UMCOR

The United Methodist Committee on Relief (UMCOR) has introduced a new method of farming in impoverished areas of Africa through its **Sustainable Agriculture and Development program.**

These new techniques are transforming communities with poor nutritional standards to thriving centers of crop production, market goods, and family income. The calculus of sustainable agriculture is multiplication. Crops and better nutrition aren't the only benefits.



*These beehives are kept by farmers in Ghana.*

Credit: Agricultural Missions

## **A Harvest of Honey**

Benefits come in layers. Consider one element of sustainable agriculture as taught by UMCOR trainers: **beekeeping**. Long shunned in part because of their association with witchcraft, bees are a new source of food in Sierra Leone.

Beekeepers affirm that the cultivated honey tastes better than that taken in the wild. But food is only one of the many tangible products the new beekeepers can realize.

- **Beeswax**—Can be used to create batik textiles in marketable quantities.
- **Propolis**—The glue bees collect from certain tree buds can be used in construction of furniture to sell in the local markets.
- **Honey**—Potential uses include salve, cough syrup when mixed with garlic, and asthma relief.

There are intangible benefits as well, further multiplying the benefits of the honey harvest.

- **Community solidarity**—Residents of every age can pull together to build and maintain a hive. Their model is the social order and industry of the bees themselves, observed as part of the training program.
- **Education**—An extensive training program, including hive construction, bee care, harvest techniques, and uses of products precedes actual implementation of a beekeeping venture.
- **Environment**—Control of brushfires, protection of forestlands, and cultivation of fruit trees for their pollen as well as their fruit, are byproducts of the new beekeeping ventures. Collecting honey in the wild often led to the destruction of entire trees.

## **The Humble Soybean**

UMCOR technical trainers—Africans skilled in the new methods—have reintroduced **the soybean** and won over its skeptics. Past efforts with soybeans failed because pests infested the fields and processing methods resulted in unpalatable foods. The simple soybean offers its own layers of benefits, both tangible and intangible.

- **Nutritious soymilk**—The Rev. Ilunga Ngolo Mwana, one of 110 participants in UMCOR training, tasted soymilk for the first time. He now encourages its preparation and use in his family. Methods of

preparation taught in the past were difficult and all but guaranteed unpleasant-tasting milk.

- **Soil management education**—Communities can learn appropriate agriculture methods that treat the soil naturally, guarding against pests with organic sprays and using organic materials to improve soil consistency.
- **Economy**—Surpluses of soybeans can be prepared for market, along with recipes for many delicious dishes, using not only soymilk but also the whole beans and soy flour.

## A Fast-Growing Tree

*Moringa tree leaves.* Credit: UMNS

"**Moringa**" is an unfamiliar term in many places, but in Kamina, a village in southeast Democratic Republic of Congo, it's a household word. The *Moringa oleifera*, a tree native to India, grows rapidly in Africa and is very versatile. Every part of "the miracle tree," from leaves to bark, has an important use.



- **Leaves**—Delicious vegetables that can be cooked like spinach.
- **Young pods**—Nutritious vegetables that can be cooked like green beans

- **Infusions and powders**—Medicine that users say comforts the common cold, abdominal pain, headache, hypertension, diabetes and arthritis.
- **Seeds**—Treat intestinal parasites.

The moringa, like bee products and soybeans, can help transform the economic life of a community through food security, income generation, and environmentally friendly cultivation methods.

## **Program Impact**

Each year, **at least 3,300 persons benefit** from UMCOR's Sustainable Agriculture and Development program, either directly as newly transformed farmers or as people who have heard of the new methods by word of mouth. UMCOR has programs in **seven countries** so far:

- Democratic Republic of Congo,
- Gambia,
- Ghana,
- Liberia,
- Nigeria,
- Senegal, and
- Sierra Leone.
- An assessment of Mozambique is scheduled for 2004.

More than **half of the beneficiaries are women**. Sixty percent of the participants in direct training teach the new methods to their friends.

## How to Give

Help fund food security projects and the Sustainable Agriculture and Development program through **UMCOR Advance #982188, Sustainable Agriculture and Development**. Write the # and name of the project on the memo line of your check.

**By Offering** For local church and Annual Conference credit, put your gift in the offering plate on Sunday.

**By Check** Make your check to **UMCOR** and send to UMCOR, 475 Riverside Dr., Room 330, New York, NY 10115.

**By Credit Card** Call toll-free (800) 554-8583

### **UMCOR. Multiplying Hope.**

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The United Methodist Committee on Relief delivers hope and enhances human dignity through food, shelter, health and peace projects.

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