# Dcfrn-~1Developing Countries Farm Radio Network

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Improved Honey Production and Processing in Dryland Kenya

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**Notes to Broadcaster**

Desertification is a major problem facing many African countries. Land degradation due to desertification results in poor yields and grazing capacity, loss of farmland and rangeland, reduction or disappearance of forests, and serious economic difficulties for producers, herders, and the general population.

The Desert Margins Program (DMP) is a collaboration among nine African countries: Burkina Faso, Botswana, Mali, Namibia, Niger, Senegal, Kenya, South Africa, and Zimbabwe, assisted by five International Agricultural Research Centers and three Advanced Research Institutes. Its objectives are: 1) To understand land degradation; 2) To assess dryland management practices; 3) To improve natural resource management; 4) To design policies, programs and institutional options; 5) To formulate drought management strategies; 6) To enhance institutional capacities; and 7) To exchange technologies and information. The key goal is to enhance the food security of poor rural populations and alleviate poverty by halting or reversing desertification. The 120 million inhabitants of these nine countries depend mainly on rainfed agriculture and natural rangelands for their survival. But their livelihoods are at risk due to land degradation. The problem of biodiversity loss is particularly critical in very dry areas where ecosystems are less likely to recover once they are seriously damaged. This script focuses on a DMP project in dryland Kenya.

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**Host:** Hello and welcome to the program. Today we are going to talk with a leading researcher about improved beekeeping practices. But first I want to say a few words about why honey is so important. In many communities, including those in dryland Kenya, honey is both a source of nutrition and a source of income for farmers. But the production of honey in Kenya is limited for two reasons. First, the equipment that producers use for making honey is not very efficient. Second, the honey producers lack resources to improve their practices. The Desert Margins Program is trying to solve these problems by working with poor farmers, and by encouraging them to form small beekeeping groups.

Today we have with us Mr. Linus Wekesa, a researcher who will speak to us about a project that has been helping beekeepers in dryland Kenya. Welcome to the show, Mr. Wekesa.

Mr. Wekesa: Thank you for inviting me.

Host: Can you begin by describing the traditional honey-making practices in dryland Kenya?

Mr. Wekesa: Farmers generally use locally made hives, which are usually hollow inside. These hives are good at attracting bees, but they take a longer time to produce honey. Because the hives are hollow, the bees must spend a lot of time building the combs before they start to produce honey. There can also be problems with quality. Unless you are extremely careful, there is a good chance that harvested honey combs will contain eggs as well as young and mature bees, as well as honey.

Host: What advice has the project been giving to farmers?

**Mr. Wekesa:** The project has been suggesting that farmers invest in improved hives such as the Langstroth hive. This kind of hive usually has two compartments, a lower and an upper chamber. The exit holes which connect the two chambers are slightly bigger than worker bees but slightly smaller than the queen. This means that the queen can only be in the lower chamber. But the workers can move freely. Because of this arrangement, the honey in the lower chamber is used to feed the queen and for reproduction, while the honey in the upper chamber can be harvested. I should add that, because Langstroth hives are more expensive, many farmers can only afford a few. Investing in improved hives is normally a good idea only when a farmer is very confident that the market will reward his or her investment.

**Host:** As well as advising beekeepers to invest in more effective hives, what other training has the project been offering to farmers?

**Mr. Wekesa:** We’ve been training farmers how to set up the hives, when to harvest, how to process, and how to package and market the honey.

Host: What is your advice on processing the honey?

Mr. Wekesa: Traditionally, farmers process honey by squeezing it through a piece of cloth. But this practice results in all the contents – honey, eggs and larvae – being mixed together. This is poor quality honey. So we have been advising farmers to use homemade hand-operated centrifugal processing equipment. This equipment rotates the combs, creating a force that extracts the honey. The honey is then filtered and passed through a hot water bath to increase its liquidity. Honey harvested from the Langstroth hives I mentioned before - the hives with two chambers - fit well with this processing arrangement. After processing, the honey is packaged in glass materials rather than plastic, which guarantees good quality.

**Host:** I understand that the project has been helping farmers with choosing bee forages as well.

**Mr. Wekesa:** Yes. Honey tastes differently and has a different colour based on what plants the bees feed on. For example, bees might feed on sisal plants, banana, eucalyptus flowers*,* mixed flowers, or other kinds of vegetation. In our project, the best quality honey came from bees foraging on trees such as *Acacia mellifera*. We recommend that farmers plant forage species which provide other farm benefits. For example, aloe and some other trees are fast-growing and farmers can benefit from them in many ways.

**Host:** So, if I can summarize the work you’ve been doing with farmers on this project, I would say that, first, you have been recommending that farmers use Langstroth hives, which feature upper and lower chambers. Second, you have been recommending that they use homemade centrifugal processing units to process their honey and to store the honey in glass containers rather than plastic. Finally, you have been recommending that the bees forage on *Acacia mellifera* and other trees, as the honey will then taste better. Is that correct?

**Mr. Wekesa:** Yes, that is correct. I’d also like to mention that the Desert Margins Program has been assisting beekeepers to set up small beekeeper groups. With these groups, they have been better able to afford the improvements in technology and practice. And then – and this is our ultimate goal – their income and livelihoods are improved.

**Host:** Thank you very much, Mr. Wekesa, for coming here today to tell us about this valuable project.

**Mr. Wekesa:** It has been my pleasure.

**Host:** This concludes our program for today. Thanks for joining us. Good-bye.

Acknowledgements

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Common names for *Acacia mellifera*

English: black thorn, hook thorn, wait-a-bit thorn

French: acacia (mellifère), senellier ou cenellier noir

Afrikaans: Swarthaak

Arabic: kedad, kitir, kitr

Kwanyama: edilanghono/okadilanghona
Ndebele: katogwa, muguhungu, mukotokwa, umngaga
Somali: bilel, lanen, laner
Swahili: kikwata
Tigrigna: tselim kenteb
Tongan: mupandabutolo
Setswana/Tswana: blouhaak, haakdoring, hakiesdoring, mongana, wynruit

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