Developing Countries Farm Radio Network

Pack 10, Item 6

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**Planting trees, part 5: Care of trees after transplanting**

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Information on this topic was requested by DCFRN Participants in Argentina, Bolivia, Brazil, Cameroon, Colombia, Dominica, Ecuador, Guatemala, Haiti, India, Kenya, Malawi, Maldives, Mali, Paraguay, Peru, Philippines, Senegal, Sri Lanka, Thailand, and Uruguay.

Presenter: George Atkins

Interviewees: David Coyle, Andy Kenny.

**Special note**

1. This item contains the suggestion that "People in your village who live near you" might co-operate in a tree planting project. Suggestions of this kind, in this or in any other DCFRN item, of course, should only be included if they might apply to the rural people you serve. If, for example, they don't actually live in the village, the message should be adapted so it is appropriate for them.

2. Before using this information, please read the notes at the end concerning related DCFRN items.

**Suggested introduction**

We at this radio station are part of a worldwide information network that gathers farming information from developing countries all over the world. It's the Developing Countries Farm Radio Network, sponsored by the Canadian International Development Agency, Massey Ferguson, and the University of Guelph.

Through this Network, we bring you information on ways to increase food supplies for your family, or to sell—ways that other farmers have used successfully.

Once again, let's think about trees. And why should we do that? With the answer, here's George Atkins.

**ATKINS:** Most people agree that trees are good to have growing in the area where they live. Just think for a moment about how much we depend on trees—

- for firewood and all the other uses we have for wood

- for fruits, nuts, leaves, sap, and bark that we use

- for shade from the sun and protection from wind

- for the way they help to keep our soil from washing away, and

- for many other good reasons as well.

Have you ever really thought about all those things that trees provide for us?

If you have, perhaps you are one of the many farmers who has decided to plant trees to replace all the trees that you and other people have been cutting down. Maybe you've decided to plant trees in areas where there aren't any now. One thing that everyone who plants trees must remember though is that there's a lot more to growing trees than just planting them.

This is something I talked about with Andy Kenny and David Coyle, two foresters in Botswana. They told me this:

**KENNY:** The farmer should realize that, from the time of planting trees to the time he can actually start cutting trees for firewood can be a number of years—and he should not be tempted to cut the trees too soon.

**COYLE:** Because it's such a long-term effort, it might be really worthwhile for the people in your village who live near you to sit down and think (talk) about why you're planting the trees; where you're going to plant them and who's going to take care of them after they've been planted; who's going to reap the benefit; who's going to be responsible for caring for the trees and who's going to be able to use those trees after they've grown up.

**ATKINS:** Well right now, let's think about caring for trees that have been planted. Trees are something like our children. We have to look after them until they are big enough to get along without our help. So what are some of the things we should do for trees right after we've planted them out as seedlings? The first thing is watering. Should they be watered?

**KENNY:** If the tree is planted during the rainy season and the soil is prepared well and the tree is planted well, you should be able to let the tree grow on its own, now that it's out of the nursery. But if the day after you planted your tree, there was no rain in sight for a number of weeks, you might find it would be a very good idea to water the tree.

**ATKINS:** Is there anything else that you would suggest?

**KENNY:** Something we really must do is protect the trees from animals, mainly our goats or cattle or whatever else might be around that could eat the branches or bark off the trees. Many of the young trees and even older trees can be killed by this type of damage.

So somehow we have to keep the animals away from the trees that we planted. I think it's very important that we put up strong fences to protect our young trees.

**ATKINS:** And those fences must keep chickens away from the young trees as well. We can build strong fences out of wood—perhaps even branches with thorns on them, or we can use other materials. I've seen tall baskets around trees in China. In some places, trees are protected with stone fences and in northern Ghana, farmers build mud walls 20 centimetres (8 inches) or more in thickness. The important thing to remember is that goats and cattle are strong, so whatever we use to protect the trees must be strong. Also any structure or fence we build must be securely attached to the ground so it can't be moved by the animal. No young tree can keep on living if it is attacked by animals.

Now there's another way of protecting young trees from poultry and animals. It's very effective but you have to keep doing it season after season.

Have you ever noticed that animals won't eat anything that has their manure or urine on it? Well I know of farmers who keep animals away from their trees by using these animal wastes. Here's how they do it:

In Ghana, they mix fresh manure from the animals with water to make a soupy mixture. They leave it for three days to ferment (rot or go bad). Then they paint this thick strong-smelling liquid on their seedling trees.

On an island in the eastern Indian Ocean, there's a man who mixes up fresh goat, chicken and cow manure with a bit of mud and diluted urine. He paints the trunks, branches, and twigs, even of bigger trees, with this mixture. He also applies it lightly to leaves and buds; and even during the heavy rains in the rainy season, his trees are safe from goats. He always paints the trees again after a month, however, because the heavy rains will eventually wash the mixture off the trees.

But now, there's one other thing we must do to be sure that our young seedling trees get a good start. This hint comes from David Coyle.

**COYLE:** We also would want to protect the small trees from any weeds that might grow near the trees, so try to keep weeds from getting started near the trees, at least until they have grown up enough above the weed cover.

**ATKINS:** Now from what you've heard on this program today, I'm sure you realize that if you do all the work of growing seedling trees and planting them out, all that will be wasted if you don't take good care of your young trees so they get a good start. Here are those main points again:

First: If your trees are planted properly, at the right season of the year, they shouldn't need much watering. But if it gets very dry, give them water if you can; and if you do water them, give them enough to really soak down to where the roots are.

Second: Young trees must be well protected from livestock and poultry; and

Third: Be sure to keep weeds and grass from growing around each seedling tree you have planted, at least until they're well started.

 Finally, a couple more thoughts from our two foresters:

**COYLE:** You could start growing some more trees so you can keep a supply of them in your nursery. Then if some of your trees die, you'll have extras to put in their place.

If you see the value of planting trees both for you and your children in the future, certainly planting trees continuously as you cut them is always a good idea.

**KENNY:** I think you should involve the children right from the very beginning, collecting the seeds right through to the planting and growing. In that way, when they grow up, they'll just do it naturally and they'll also appreciate the time and effort that's gone into those trees so that they won't be wasted and they'll be respected for the value that they have.

**COYLE:** And if you are involving children, every time there's a special day, they could plant a tree in honour of that day.

**ATKINS:** What a great idea! Thank you very much, David Coyle and Andy Kenny, here at the Rural Industries Innovation Training Centre at Kanye in Botswana in Southern Africa.

Serving Agriculture, the Basic Industry, this is George Atkins.

**Notes**

1. This item is one of a series on "Planting Trees" in DCFRN Packages 9 and 10. They are:

Why Plant Trees? - Package 9, Item 1D

Planting Trees - (Part 1 - First Steps) Package 9, Item 2

Planting Trees - (Part 2 - Growing Your Own Seedling Trees) Package 9, Item 3

Planting Trees - (Part 3 - Where and When to Plant Trees) Package 10, Item 4

Planting Trees - (Part 4 - Transplanting Seedling Trees) Package 10, Item 5

Planting Trees - (Part 5 - Care of Trees after Transplanting) Package 10, Item 6

The information in this series should be used in the correct sequence.

2. This is an item that you could easily break up into two shorter ones. The first would deal with the long-term aspect of an individual farmer or group of farmers undertaking and caring for trees in a tree-growing project. The second deals specifically with the care of trees right after transplanting.

3. Information on protecting newly planted seedling trees from animals by applying animal urine and manure was found in the following:

a) ECHO Development Notes No 9, September 1984, (page 4), Published by ECHO, North Fort Meyers, Florida, U.S.A. Downloadable at https://www.echocommunity.org/en/resources/e1aa1982-6bcc-4fe6-bc74-d5634991f547

**Information sources for items 4, 5, and 6**

1. Techniques and Plants for Tropical Subsistence Farms (56 pages), "Trees", pages 33-39, by Franklin W. Martin and Ruth M. Ruberte, Agricultural Reviews and Manuals, ARM-S-8 July 1980, U.S. Department of Agriculture, Science and Education Administration, Washington, D.C., U.S.A. https://www.ars-grin.gov/may/documents/1980%20-%20Subsistence%20Farm.pdf

**Additional sources of information**

1. Reforestation in Arid Lands (248 pages), by V.C. Palmer, available from Volunteers in Technical Assistance (V.I.T.A.), U.S.A. Also available from Peace Corps, Information Collection and Exchange, Office of Program Development, Washington, D.C., U.S.A. https://files.eric.ed.gov/fulltext/ED242563.pdf

2. Firewood Crops: Shrub and Tree Species for Energy Production Vols. 1 (236 pages) and 2 (92 pages), published by the National Academy of Sciences, available from BOSTID (JH-217D), National Research Council, Washington, D.C., U.S.A. Downloadable at https://www.nap.edu/catalog/21317/firewood-crops-shrub-and-tree-species-for-energy-production

3. Manual of Reforestation and Erosion Control for the Philippines (569 pages), GTZ series No. 22, compiled by H.J. Weidelt, published by the German Agency for Technical Cooperation (GTZ), Eschborn, West Germany. https://wocatpedia.net/wiki/File:GIZ\_(1975)-\_Manual\_of\_reforestation\_and\_erosion\_control\_for\_the\_Philippines,\_full-version.pdf