Developing Countries Farm Radio Network

Pack 10, Item 5

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**Planting trees, part 4: Transplanting seedling trees**

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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**

Before using the information in this item, 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.

Today, let's talk again about planting trees. Here's George Atkins.

**ATKINS:** If there's a forestry agency in your area, and you're getting trees for planting from them, they'll tell you the best way to plant those trees. However, if you've grown your own young trees from seeds you collected and if you've been growing them in containers in your small nursery as we suggested before on this program, listen carefully. We now have information on some things you can do that will help your trees to get a good start toward growing well and becoming fine healthy trees.

First you must prepare the place where you'll be planting the trees—and remember, you'll be planting them out after the rainy season has begun. Here's what forester Andy Kenny told me about that.

**KENNY:** If you have a lot of grass in the area, you should take a mattock, a hoe or some other tool and clear the grass and weeds away, roots and all, to a distance of one pace (one metre or three feet) around the spot where you're going to plant the tree. That will give the tree a chance to grow and it won't have to compete with the grass and other plants for food, water, and light. Also, it'll discourage small animals from damaging the tree by eating the bark.

**ATKINS:** It's best to dig your planting holes before the rainy season begins. That way, they will have been well watered by the time you begin planting. Dig holes about 30 centimetres (1 foot) deep and 45 centimetres (a foot and a half) across. As you dig, put the good topsoil in a pile to one side of the hole and any poorer soil from down below in a pile at the other side. It's a good idea then to loosen up the soil in the bottom of the hole but leave it down in there.

If you have some compost or manure, you could put some of that in the bottom of the hole and then mix in some of that good soil from the topsoil pile until the hole is about half full. Be sure the soil is moist. If it isn't, add water and let it soak in. It should be moist but not wet by the time you're ready to plant your tree. I asked Andy Kenny about getting the seedling trees from your nursery.

**KENNY:** Well, you would take the trees in their containers right to the spot where you're going to plant. You don't want to let the roots dry out at all.

**ATKINS:** Now it's most important that you handle the seedling tree carefully, because you must not disturb the soil that's around its roots.

If your seedling tree is growing in a container that will rot in the ground, just slit the sides of the container from top to bottom with a knife. Then you can plant the whole thing in the planting hole. If it's a container that won't rot right away—a plastic bag, bamboo cup, coconut shell, or something like that, carefully remove it—but DON'T DISTURB THE SOIL MASS AROUND THE ROOTS.

Gently place your tree, roots, soil mass and all, in the middle of the planting hole. As you do this and as you fill in soil around the roots and soil mass, you must be sure that the tree will not be planted too deep or too shallow. It's important that it be the same depth at which it was growing in its container.

When you fill in around the roots and soil mass, first use up the rest of the pile of good topsoil you dug out of the hole. After it's all used, push it down firmly with your hands around the soil mass your seedling tree is growing in. Then fill in the rest of the hole with soil from the other pile you made earlier—the poorer soil you dug out from lower down in the hole.

Now here's more advice from the two foresters Andy Kenny and David Coyle.

**KENNY:** You have to keep in mind that there should not be any air spaces in the soil that's filled back into the hole with the tree. So be sure to pack down the soil well with your foot before you leave it and move on to plant the next tree.

**COYLE:** After you've planted the tree, it's a good idea, if you live in a dry area, to build a rim of earth around the tree (around the filled-in planting hole) to hold any rainwater that does fall.

**ATKINS:** And now here's a valuable hint. If you place flat stones on top of the soil that's just been filled in around the tree, you'll find that even when the surface soil gets dried out, it will be moist under those stones—and that's moisture the roots of your young seedling tree need to get a good start.

But what if you have no flat stones like that? Is there anything else you might do to help the tree get started? I asked Andy Kenny this question. Would it be worthwhile to put some other kind of mulch, like grass or leaves, on top of the soil in that area?

**KENNY:** It's a good idea around the tree. It will help keep the roots cool and help keep the moisture from just disappearing into the air.

**ATKINS:** Okay, so we have our young trees planted out where they'll be growing. We'll talk next time about what we can do for them while they are growing.

We've been chatting here at the Rural Industries Innovation Centre in Kanye in Botswana with Andy Kenny and David Coyle, two agroforesters.

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.

**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.), Arlington, Virginia, 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