Developing Countries Farm Radio Network

Pack 10, Item 4

Type: Script

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**Planting trees, part 3: Where and when to plant trees**

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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 requested information on this topic.

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 some more about planting trees. Here's George Atkins.

**ATKINS:** One of the best things that anybody can do is to plant one or more trees. We've talked about tree planting before on this program, and if there's a forestry or tree planting service in your area, their extension people may also have discussed it with you. Indeed, you may be able to get seedling trees for planting from them or you can grow them yourself.

But where should you be planting these seedling trees?

This is a question I asked a forester, Andy Kenny.

**KENNY:** That's going to depend on why you are planting the trees. It's a good idea to plant trees for firewood fairly near the home. Obviously you won't achieve much by planting trees for firewood 5 miles (8 kilometres) away, but you don't want them so close to your home that they will become a problem.

You must remember that the area where you plant your trees is going to look quite different after the trees have grown up. So if you are going to plant them near a building or something that might get in the way when the trees get bigger, stand back and try to think of a tree growing in that spot that's like the one you got the seeds from. Then plant your seedling away from any buildings or other structures so that when it grows up, it won't be crowded.

So you'll have to plant them in a suitable place depending on your reason for planting trees.

We suggested on an earlier program that the farmer should observe where the trees grow naturally. Well, this will help him in choosing where he will plant them. He should plant them in a place that's similar to where the trees were growing from which he got the seeds. If those trees were growing on a ridge (on high ground) then he should plant on a similar ridge; or if the seeds came from trees in low wet land, then he should try to find a similar spot.

**COYLE:** If you have a problem with soil erosion in your area, you might consider planting trees near places that are badly eroded to help check some of that erosion problem.

**ATKINS:** Then some other good places would be on steep slopes, along the sides of a road or pathway, perhaps between rows of houses, but not too close to them.

Now say a farmer has only 1/2 an acre (1/5 of a hectare) of land altogether and he or she has to grow food crops on that land. Here's what David Coyle suggests.

**COYLE:** Well, because there's such a shortage of land for all the people in our area, they're thinking about forming a small group and planting trees in an area that isn't used for crops, making a firebreak around it and taking care of it together. Co-operatives like this are being formed all over the world. It might be something to consider if you're thinking about planting trees in your area.

**ATKINS:** Supposing you just have a small piece of land and your neighbours are not interested in planting trees as a group, could you plant them around the outside of the land that you have?

**COYLE:** Yes, trees are great because they can be beneficial anywhere. You can plant them all around your field as a windbreak to keep the wind from damaging your crop.

**KENNY:** You'll have to be careful to think about what those trees will look like in the place where you plant them after they're fully grown. You don't want them to be such big trees that they will shade your crop land or use too much water from the soil your crops are growing in. But to plant trees that won't grow too big, that's a very good idea.

**ATKINS:** If you don't need very big trees, you can grow them quite close together, say a bit more than a pace (60 centimetres or 2 feet) apart. Then you could cut them for fuelwood when they're about as thick as your wrist. But what if you want them to grow bigger than that. How far apart should you plant them then?

**KENNY:** Well, if you figure that when the trees are fully grown they should be 2 paces (1-1/2 metres or 4 feet) apart, you might want to plant them only one pace apart to begin with. Then when the trees grow big enough so the branches start touching each other, you could cut out every other tree. Then when you do that, you could be harvesting some firewood, poles, or wood for other purposes.

**ATKINS:** Yes and of course, you could also get firewood just by cutting off a few branches from time to time.

Now let's think about the soil where you're planting your trees. Tree roots can easily grow in stony soil—they just grow around the rocks. And even if there's solid rock below the surface—if the rock has cracks in it, roots will grow in the cracks.

But what if there's solid rock with no cracks, and shallow soil on top? Is there anything we should consider about that?

**KENNY:** The only problems you have with shallow soil is when it's shallow over continuous rock beneath the soil. Then tree roots can't even find a crack to grow down into, so they just have to spread out in the soil above the rock. The problem then is that the wind can blow the tree over when it grows big; also. the shallow soil can dry out faster than deeper soil.

**ATKINS:** So how deep should the soil be on top of solid rock like that with no cracks for the roots to grow into?

**KENNY:** Well. that depends on the size of tree. Larger trees need more soil, so if you're planting a tree that will grow to a height as tall as 3 men, the soil should be at least 1 metre (3 feet) deep.

**COYLE:** In our area we have a real problem with garbage—especially old tin cans. We solve this problem by digging large pits and nearly filling them with the tin cans. We then cover the pit with soil and plant the tree in that soil. Eventually, as the tree grows and the roots grow down into the cans, any rains that do come can filter down into this pit quite well and there'll be plenty for the tree. It's a good way to get rid of any unsightly garbage you have in your village.

**ATKINS:** That's a great idea.... Now what about the time of year you're going to be planting your trees. Is there any special time?

**COYLE:** You could prepare the holes before the rainy season so that the holes could be well watered by the time you're ready to plant.

If the soil has been well watered by the first rain and you expect that the rain is going to be fairly good, then you should plant after the first or second good rain in a dry area.

**ATKINS:** And now perhaps you have a few more ideas to help you decide on the time and place for planting your seedling trees. Next time, David Coyle and Andy Kenny will give us some hints on planting out your young trees.

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:

Why Plant Trees? - Package 9, Item 10

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. Before using the information in this item, please read it over carefully. Depending on whether or not seedling trees are available from a local tree grower or forestry agency to the farmers you serve, you might need to make some changes in the script to suit local circumstances.

3. In this item, it is suggested that a firebreak be made to protect a new plantation of trees. A full explanation of how this can be done is given in another DCFRN item which you might consider re-using in association with this item:

A Firebreak - DCFRN Package 6, Item 1B

**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, 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