**Developing Countries Farm Radio Network**

Pack 13, Item 7

Type: Script

Date

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**Helping citrus trees to bear fruit early**

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Information on this subject area was requested by DCFRN participants in Argentina, Bolivia, Brazil, Cameroon, Colombia, Costa Rica, Dominica, Dominican Republic, Ecuador, Fiji, Ghana, Guyana, India, Kenya, Lesser Antilles, Lesotho, Malawi, Malaysia, Mali, Mexico, Papua New Guinea, Paraguay, Peru, Philippines, Taiwan, Thailand, Uganda, Venezuela, Yemen, and Zambia.

Presenter: George Atkins

**Special note**

Before using the information in this item, please read the note 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.

A good start for young citrus trees—that's what we're going to talk about today. Here's George Atkins.

**ATKINS:** I'm sure that after you've planted a young citrus tree,
you have one very important question in your mind. What can I do now to make sure it will grow well and start bearing fruit soon?

Well, Barrie McFadzean of the Chipembi Farm College in Zambia has some very good advice for you.

From a lot of experience with young citrus fruit trees, he has found that when planting, it's a good idea to arrange it so that the tree is planted in what he calls a "watering basin" 8 or 10 centimetres (3 or 4 inches) deep.

That really means that the tree is planted in the planting hole a little below the level of the ground that's all around the hole. Thus you've planted the tree in a watering basin. You can build a rim of earth around the basin to hold plenty of water to help that tree grow—and you can pour water into it whenever needed to
keep the roots damp.

Dr. Allen Knight, who worked for many years in Angola and Zaire, says it's a good idea to plant your tree in such a way that it looks like it's planted on a small island in the middle of the basin. "It's best," he says, "for water in the planting basin not to be in contact with the trunk of your tree. It is important, however, that the soil above and around the roots of this young citrus tree does not dry out; so be sure to water it regularly in dry weather."

Now you probably already knew what I've been telling you so far. A lot of people do that for trees they plant. But Barrie McFadzean says it is very important that you do it! Your citrus tree will be healthier, grow faster, and start producing fruit sooner.

As your tree grows, however, Barrie says you must remember that the roots grow too. Within a year, of course, they have grown quite a bit. Actually, those roots have grown down deeper into the ground, and out from the trunk of the tree—as far out as the branches have grown out from the trunk.

Because of this, the roots that pick up moisture and plant food are now out quite a distance, not in close to the trunk where they were when the tree was very young.

Here then is what you can do to be sure that the roots continue to get plenty of moisture so the tree will be healthy—and finally bear lots of fruit.

Barrie suggests you construct a wide, circular, shallow ditch around the tree, out there above where the ends of the roots are growing. He has a very easy way of knowing where to dig this wide shallow ditch.

To do it, tie one end of a string a couple of metres (5 or 6 feet) long to the base of the tree. Pull the loose part of the string out from the tree close to the ground. Tie a stick to the string at a distance directly under the tips of the longest branches. Then, using that stick and keeping the string tight, scratch a mark on the ground in a circle all around the tree.

Now see what you have: A mark on the ground all around the tree—and it's under the tips of the longest branches of the tree. Also, if you think about it, this mark is just above where the ends of the roots are down under the surface.

The next thing to do is to untie the stick. Then tie it again to the string 1 metre (3 feet) farther out. Now scratch another circle on the ground like you did before. You now have two circles around your citrus tree.

Barrie says to make your wide, shallow trench about 15 centimetres (6 inches) deep between those circles you've scratched on the ground. You can do this with a shovel or a hoe and use the soil out of the trench to make a rim or bund all the way around just outside that second mark you scratched.

You've now made a circular trench all around the tree—a great place for irrigation water or rainwater to collect and provide moisture for the roots of your citrus tree.

But, Barrie doesn't stop there. He says that to hold the moisture, you should fill the trench with mulch. You can do this by gathering up grass, leaves, and other plant material to put into it.

He suggests adding more whenever you can—even heaping it up if you wish. Finally, he recommends that you keep putting enough water into your trench so that the mulch at the bottom of it is always moist.

Once again, after the tree gets bigger, Barrie says you should fill in the old trench and make a new, bigger one farther out. Do it again in the same way, using a longer string, making a larger trench farther out from the tree— out there where the roots are.

Barrie says that at Chipembi, they've found that with young orange trees, it's best to do this every 1-1/2 to 2 years; and he says that each time you reconstruct the circular trench, you should make it about 1 metre (3 feet) wide and out just beyond the longest branches. This way, the feeder roots will always be growing into
soil with lots of water and plant food that seeps down from the rotting mulch.

Using Barrie's method, all irrigation water you give to your tree will be used to the best advantage and less will be needed because it will be held by the mulch. In addition, the mulching will reduce your weed problem and you'll be improving your soil.

For my colleague, Barrie McFadzean in Zambia, and Serving Agriculture, the Basic Industry, this is George Atkins.

**Notes**

While this item deals with the care of citrus trees after planting, proper steps to be taken before and during planting are thoroughly covered in other DCFRN items. You are strongly
urged to repeat pertinent information in at least one of them before presenting this information. It is:

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

2. You might also wish to use information in other related DCFRN items in association with this item. They are:

Soil Moisture, Necessary for Crops - DCFRN Package 2, Item 4