Developing Countries Farm Radio Network

Pack 10, Item 3

Type: Script

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**Handling manure**

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Information on this subject area was requested by DCFRN Participants in Bangladesh, Bhutan, Costa Rica, Ecuador, Guatemala, Mexico, Papua New Guinea, Paraguay, Philippines, Taiwan, Trinidad, Venezuela, and Zimbabwe.

Presenter: Barbara Peacock

**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.

If you keep livestock or poultry, we have some hints for you. Here's Barbara Peacock.

**PEACOCK:** Today, I'd like to talk about using animal manure and urine as fertilizer for crops.

We all know that animal manure is good fertilizer. It improves the soil by adding organic matter and plant food. You can't see the nutrients that make up this plant food, but plants must have them to grow properly. They get them from the soil, through their roots. Manure and urine contain a lot of valuable plant foods. So when you mix them with the soil, your crops grow better.

Now if you use your animal manure to help your crops, there may be some things you could do so your crops would be even better. That's because some plant foods are easily lost if you don't collect your animals' manure and urine and store it properly, and if you don't apply it properly to your crops.

For instance, nitrogen is an important plant food that's in both manure and urine. But if the manure just lies around in small lumps on the ground in the sun and wind and rain, much of the nitrogen in it will be lost into the air, and the other plant foods in it will be wasted. It's much better to collect the manure while it's still fresh and rich in plant food, and keep it all heaped together in a tightly-packed pile until you want to use it.

It's best to build this pile on a hard surface if you can, so that nutrients won't seep or trickle down into the ground below and be lost. A cement floor is best, or ground that’s fairly hard and waterproof, like clay.

You could surround the pile with a small ridge to catch any liquids that might otherwise flow away from the pile and be lost; also, it will prevent other water from getting to the pile and washing away some of the good nutrients you want for your crops.

You should cover the manure pile to protect it from being dried out by the hot sun, and to keep off heavy rains that would wash plant food out of it.

Some people cover their manure pile directly with a sheet of plastic, or banana leaves, or banana leaves and soil. Or you could build a shelter to protect the pile—just a simple thatched roof supported by poles would keep off rain and sun. If you can't build a shelter, you should at least make the manure pile under a large tree so it won't be dried out so much by the sun.

Now what about your animals' urine? How can you collect urine? It's easy if the animals spend much of their time in a fairly small area—a small compound or a shed where they sleep, for instance. Just spread dry grass, chopped straw, dry leaves, or even clean dry soil on the ground in this area to soak up the urine the animals produce. You can also use the coarse hay stems that your animals won't eat. But maybe you noticed I said "chopped straw"; that's because chopped straw soaks up more urine than straw that isn't chopped. Chopped straw makes good bedding for your animals if you have it.

Now, before this bedding gets too wet and dirty, take it away and add it to the manure pile, and put down more dry grass, straw, or leaves for bedding for the animals. If you do this regularly, it will help your animals stay cleaner and healthier too.

Whenever you add more to the manure pile, pack it all firmly together, because if there's too much air in with it, more nitrogen will be lost from it.

Also, keep the pile moist—not too wet, not too dry. If it's so wet that liquid trickles away from it, add more dry material, such as chopped straw, dry leaves, or dry soil. If, on the other hand, the pile starts to dry out, sprinkle it with a little water to moisten it.

Finally, the time will come to apply your manure to your field or garden. Remember I said that if manure lies uncovered, on top of the ground, it will lose much of its nitrogen. That wastes valuable plant food.

Your plants will get much more nitrogen if you dig the manure right into the soil as you apply it—as soon as you can after spreading it.

So it's really best to take your manure to the field just when you're ready to cultivate. Then, as soon as you've spread the manure, you can cultivate and mix it into the soil. That way, all the plant food nutrients in it will go directly into the soil, and help your crops grow well.

Serving Agriculture, the Basic Industry, this is Barbara Peacock.

**Notes**

1. Manure is discussed in other DCFRN items. It is suggested that for maximum impact on your farmers, this information be presented in the following order:

Manure - a Good Source of Plant Food - DCFRN Package 2, Item 5. This item provides a good introduction to the subject.

Handling Manure DCFRN Package 10, Item 3 (this item)

Improving Manure - DCFRN Package 8, Item 3. This is a good follow-up to Handling Manure.

2. For an even more complete series, it is suggested that the items mentioned above be preceded by the presentation of the information in other DCFRN items in the following order:

Soil Moisture - Necessary for Crops - DCFRN Package 2, Item 3

and information on Nitrogen on page 2 of Legumes, Our Best Source of Protein from Plants—Why and How - DCFRN Package 5, Item 3.

Your farmers should know what Nitrogen is and how important it is before hearing about it in this item (Package 10, Item 3)

3. Additional information on manure and plant nutrition may be found in:

Watering Seedlings and Applying No-Cost Fertilizer - DCFRN Package 6, Item 6

**Information sources for this item**

1. "Manures and Compost", Agriculture Canada Publication 868, (17 pages), Information Services, Agriculture Canada. http://publications.gc.ca/collections/collection\_2013/aac-aafc/agrhist/A53-868-1979-eng.pdf