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# Pack 102, Item 10

Type: Script

November 2015

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**A simple but effective trap for stable flies** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Notes to broadcaster

Flies can be a major problem for dairy cattle. *Stomoxys* flies, otherwise known as stable flies, can transmit several diseases, and cause loss of weight and milk production in dairy cows. This script describes a simple trap which can be used to minimize fly problems in cowsheds.

You might choose to present this script as part of your regular farming program, using voice actors to represent the speakers. If so, please make sure to tell your audience at the beginning of the program that the following short drama is based on a conversation with an agricultural scientist, but that the voices are those of actors, not the original people in the script.

You could also use this script as inspiration to research and develop a radio program on managing stable flies in your own country.

If you choose to use this script as inspiration for creating your own program, you could talk to dairy farmers, extension agents and others, and ask the following questions:

* To what extent are cattle housed in cowsheds in your country?
* Are stable flies an important problem for dairy cattle? How do they negatively impact weight gain and milk production?
* Are there cattle breeds which have greater or lesser tolerance for stable flies?
* Are there other solutions for stable flies in your area?
* Has this solution been tried in your area? Did it work?

Apart from speaking directly to dairy farmers and other key players in the local agriculture sector, you could use these questions as the basis for a phone-in or text-in program.

Estimated running time, including intro and extro music: 5 minutes

**REPORTER:** Do you ever have trouble with stable flies? Stable flies are blood-sucking creatures that attack dairy cows in tropical countries. For the past few years, scientists in the Indian Ocean island country of Mauritius have been doing some special research on how to control these flies called *Stomoxys* (pronounced sto-mox-is).

Traditionally, farmers kept their cows in small darkened straw cowsheds to protect them from flies. But the flies do get inside.

Now, a very simple but effective fly trap has been designed and many farmers in Mauritius are using it. I talked to an agricultural scientist about it.

Can you describe this new fly trap for me, (*Mr. or Dr. \_\_*)?

**AG SCIENTIST:**  Picture in your mind a square wooden box, 45 centimetres wide

by 45 centimetres long by 45 centimetres deep. Now think of that same box, but instead of seeing it with solid sides, imagine that every side is made of fine nylon netting – fly screen, if you like, or perhaps old mosquito netting.

You start by making a framework which fits inside the box in order to turn it into an effective trap. With a bit of effort, you can make it so the entire inside wall is like a funnel leading into the box.

You might be able to do this by tying string from the inside corners of the inner frame to the opposite outside corners on a diagonal. You could also secure the top half of an old plastic bottle, and stretch the mesh over and through its hole and secure it. Make sure the funnel points into the box!

Now you must stretch the netting over the strong wooden or heavy wire frame. Now you have a square, funnel-sided, nylon mesh box that can be used as a cage for stable flies.

Think about your cowshed. Decide which wall of your cowshed gets the most sun, and is the brightest. If the walls are made of straw or mud, you can use a sharp knife to cut a hole in one wall—it must be exactly the same size as the square box. The hole should be at least one metre up from the floor. You can now push the wooden box halfway through the hole. Then slide in the wire frame. Think of it as a little room for collecting flies. Half of this little room is inside the cowshed and half of it is outside.

**REPORTER:** Ok, but how do you get the flies inside the box?

**AG SCIENTIST:** Well, think about one of those pesky blood-sucking stable flies inside your dark cowshed. As you know, when it's dark, flies are always attracted toward the light. So the fly in the stable will see light coming through the hole in the wall and will fly towards it.

What you want to do, of course, is to trap the fly. So you have to do something to allow it to go into the box, but not out of it. You need to cut a small round hole in the middle of that first wall of nylon mesh, at the bottom of the funnel. It only needs to be about two centimetres in size.

After the hole is completed, when a fly comes to the trap, it will land on the sloping side of the nylon mesh funnel. It will keep walking toward the hole at the end of the funnel. That will make a perfect entrance for flies.

The creature wants to fly right outside where it is brighter. To do this, it would first have to go through the inner wall of this little nylon mesh room and then through the outer wall. But it will only be able to do one of these things.

So when the fly walks around on the nylon mesh, it will walk down the funnel towards the light and eventually find the hole. It will go through the hole and fly toward the outer wall of nylon mesh. But the fly can't go any farther. So there it'll stay and, Hey! Presto! It is trapped inside the box!

The fly won't have any trouble getting in, but it'll have a lot of trouble getting out. It doesn't really want to go back toward the dark cowshed. You've trapped the fly and all his or her friends who do the same thing.

**REPORTER:** That sounds very effective. But is it possible to make the trap less complex?

**AG SCIENTIST:** Well, yes, all you need is to place the box in the hole cut into the inside wall. The fly will find the hole eventually, but it is better to encourage it a little by putting in a little thought and trying to make a funnel.

Once the flies are trapped this way, there are various ways you can dispose of them. You can slide the inside frame out of the box and then kill the flies with fly spray, or simply pour very hot water on them inside the trap. That will do the trick. If they are dead, they can no longer bother your cows!

According to our entomologists at the Ministry of Agriculture in Mauritius, this is a very effective way to manage stable flies.

**REPORTER:** And so simple too.

That's a marvellous idea and thank you for that piece of appropriate technology, here in Mauritius.

*Note: This script is adapted from Package 1, script 8, distributed in 1979. The original speakers were George Atkins, founder of Farm Radio International, and Jean Cyril Appopoulay of the Ministry of Agriculture in Mauritius. This adapted and updated version was reviewed by Dr. John Walton, Professor of Animal Science, University of Guelph, Canada (retired).*

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