

AMBASSADOR COLLEGE

Agriculture Department

Big Sandy, Texas 75755

AC RANCH

P.O. BOX 927

GROWING YOUR BACTERIA CULTURE

1) How can I tell if my bacteria is alive?

A scientific way to check if bacteria is alive is to put it under the microscope. Since you probably don't have a microscope, try the following test:

- 1) Put a drop on a glass slide. If the droplet has some body to it and doesn't spread out flat, it is probably teeming with bacteria. (You may compare it with a regular drop of water.)
- 2) After the mixture has set from 30 hours to a week (depending on the temperature), bubbles will rise. This is a sign of life.
- 3) If the mixture is cloudy, it is a good sign of life.
- 4) An offensive odor is also a sign of life.

We have completed several tests trying to find out how long bacteria would live in the package in which it is sent out. After twelve weeks in a hot, dry place, the bacteria was still alive and active. Though the material was very dry, when water was added to it the bacteria was fine.

2) When should the bacteria be applied?

Any time is fine to apply the bacteria. When the ground is moist is the best time, and it is better if it can be disced into the soil. However, we have applied it with good results on crops, especially wheat and oats, after it was several inches high.

3) How may I keep bacteria alive throughout the winter months?

Some keep an active culture of it in their basement by covering it to prevent freezing. If you do not need an active culture for application to plants or indoor gardens, you might keep a small source in your freezer. It will keep if frozen

according to limited experiments conducted here at the College. You need not be concerned about the condition of the bacteria outdoors as it becomes dormant during the winter months.

4) What about containers for bacteria?

Metal barrels might harm the bacteria, and the bacteria will eat holes in the barrel in a very short period of time. We put bacteria in a galvanized metal tank and within three months the tank had been eaten through. Maybe you won't have this problem, because of a different type water. Our water here is a little on the acid side and this contributed to the problem.

Those who haven't been able to locate a wooden barrel have had satisfactory results by purchasing a concrete tile and putting a bottom in it. In areas where they make sewage tile or septic tanks you can get a tile very reasonable and by setting it on the ground and pouring a little concrete in the bottom this makes an excellent tank. This way you can regulate whichever size you need for the amount you want to use on your land.

Some have asked how a cardboard barrel sprayed with plastic or a new polyethylene plastic liner would effect bacteria. We have not used a container of this type; however, we feel that the container should be satisfactory.

Note: It would be best to make a starter gallon and save some back, just to make sure you have good bacteria if one type of barrel does not work.

If you adhere to the above guidelines and carefully follow the directions accompanying the bacteria instructions, you should be able to reproduce your own culture with no problem.

Bac-2