



Earthworms Are Her Livestock

By Lazaro Aleman, Monticello, Florida

ONE THING Cynthia Connolly will no doubt show you if you visit her 50-acre farm near Monticello, Florida is a diagram she created on her computer. The diagram shows how millions of red earthworms affect a flock of laying hens...and how a small vineyard affects millions of earthworms.

After getting a PhD in agricultural education from the University of Iowa, Cynthia worked around the world for organizations such as the UN and the International Center for Tropical Agriculture in Columbia. In 1989, she

bought her 50 acres and began farming holistically—and mostly alone.

“My goal is to be independent,” she says. “That means keeping a careful eye on the bottom line. It also means understanding exactly how each aspect of my farm affects every other aspect. That’s what the computer diagram is all about. It helps keep track of things.”

Take those earthworms. An integral part of the farm’s organic ecosystem, they provide rich loamy soil for the small vineyard (above). In turn, the vineyard provides muscadine grape

pulp left from winemaking for the worms to eat. When digested, the pulp becomes great soil. And soil produces grapes...or vegetables...or pecans...or cash paid by area gardeners and landscapers.

The earthworms themselves are food for Cynthia’s laying

hens. Of course, the hens then provide lots of waste for the remaining worms to feast on.

One challenge Cynthia has is keeping everything in balance so that she doesn’t end up with more of any one item—soil, eggs, produce, wine, pecans—than she needs herself or can sell. Although Cynthia does have friends who volunteer to help out at critical times such as grape harvest, the economics of her farm are based on being able to run it single-handedly.

As you might expect, Cynthia is enthusiastic about earthworms. “They are marvelous,” she says. “They have no eyes, ears, nose or limbs. They’re basically a mouth that can reproduce itself. Because they originated in the sea, most of their body is moisture.

“What they require is a moist, cool environment with plenty of oxygen. They don’t like light, and they don’t like being handled.”

Cynthia keeps her earthworms in about a dozen large plastic containers (below left) under the shady trees of her pecan orchard. Each container has about a million worms.

To establish a new worm bed, all you need is some shredded newspaper and decomposed wood shavings. Stir in a couple dozen red worms and partially cover with plastic. *Voila!*

Life expectancy of a worm is about 4 years—unless it gets eaten by a laying hen. Cynthia harvests worm castings, or waste, once a year. This not only allows worms to completely digest what they eat; digestion suppresses diseases in the soil and also adds hormones that stimulate plant germination.

To keep the worms in the containers when she removes the enriched soil, Cynthia drives them toward the bottoms of the containers with what they don’t like—light. You get the idea that Cynthia has seen the light herself—and it’s guided her to an interesting holistic way of farming and living.

