

University research demonstrated the following advantages of cowpeat when compared to native peat:

*High compost processing temperatures kill nematodes and weed seeds.

*Has higher pH than native peat (therefore it does not need to be limed).

*Provides plants with micro-nutrients and microorganism diversity.

*Provides natural protection from diseases of roots due to the beneficial organisms that live in compost.

*Cost effective renewable resource.



Cowpeat is a benefit to the dairy industry as it strives to comply with new EPA guidelines and a benefit to horticultural businesses as the need grows for alternative soil media.



This project was conducted at Gore Dairy, Zephyrhills, FL, and J & R Nursery, Dover, FL, by the University of Florida in cooperation with the Florida Department of Environmental Protection, Sunshine State Milk Producers, Inc., and Envirolitics International, Inc., Clearwater, FL. This project was funded in part by a Section 319 Nonpoint Source Management Program grant from the U.S. Environmental Protection Agency (US EPA) through a contract with the Nonpoint Source Management Section of the Florida Department of Environmental Protection.

Cowpeat

An Economically Competitive Alternative to Native Peat in Potting Soil Mixes



An alternative to native peat in potting soil media, coined cowpeat, has been developed at a dairy and tested in nursery trials by the University of Florida.

This product was developed as an environmentally friendly solution to a dairy manure management problem.



Composting is an effective way to turn cow manure solids into a product that has a high potential for use as a growth medium in the nursery industry.



Cowpeat has similar characteristics (water holding capacity, air space, total porosity and bulk density) as native peat.



The solution to a dairy industry problem may also be the solution to a horticultural industry problem.

As the horticulture industry expands in Florida, the need for potting soil increases.

Native peat is an integral component of potting soil for Central Florida nurseries. As the availability of native peat decreases, an economically competitive alternative is essential.

To create cowpeat, solids from dairy wastewater were screened and processed in a large horizontal drum composter at temperatures up to 150 F. for three days. This process kills nematodes and inactivates weed seeds.



After a short curing period, the processed material was screened and ready for blending into a traditional soil mix.

Cowpeat, as compared to native peat in multiple mix combinations, was tested extensively in University of Florida research.

