

## **Cage Layer Manure: An important resource for land use**<sup>1</sup>

Roger D. Jacobs, Don Sloan, and Jacqueline Jacob<sup>2</sup>

Why Should You be Putting Poultry Manure on Your Land?

### **1. It is a source of plant nutrients.**

1. Poultry manure contains the major plant nutrients of nitrogen (N), phosphorus (P), and potassium (K). The amounts of these nutrients can vary depending upon many factors including the age and diet of the flock, as well as the moisture content and age of the manure. Table 1 shows average nutrient values of poultry manure relative to its moisture content. For more precise values, a laboratory analysis is required. These values assume no losses and no litter.
2. Poultry manure also contains the secondary plant nutrients calcium, sulfur, and magnesium, and the minor plant nutrients zinc, copper, boron, iron, and manganese.

### **2. It is a source of lime.**

Poultry manure containing large quantities of calcium carbonate can improve acid soils for crop production.

### **3. It is a source of organic matter.**

Poultry manure applications increase soil organic matter and thus improve Florida's sandy soil for crop production. They do this in three ways:

1. Poultry manure applications increase the moisture holding capacity of the soil and improve lateral water movement, thus improving irrigation efficiency and decreasing the general droughtiness of sandy soils.
2. Poultry manure applications improve soil retention and uptake of plant nutrients, a particular problem on Florida's light-textured soils.
3. Poultry manure applications increase the number and diversity of soil microorganisms, particularly in sandy conditions. This effect enhances crop health by increasing water and nutrient availability, as well as suppressing harmful levels of plant parasitic nematodes, fungi, and bacteria.

---

1. This document is PS9, one of a series of the Animal Science Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Original publication date November 1996. Reviewed June 2003. Visit the EDIS Web Site at <http://edis.ifas.ufl.edu>.  
2. Roger D. Jacobs, multi-county extension agent, Don Sloan, associate professor of Dairy and Poultry Sciences Department, and Jacqueline Jacob, poultry extension coordinator of Dairy and Poultry Sciences Department, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, 32611.

#### **4. It is a recommended best management practice.**

Utilizing chicken manure as a high quality fertilizer is a recommended best management practice for sustainable agriculture when applied to meet plant nutrient needs of the intended crop in conjunction with soil tests.

**Table 1.**

<b>Table 1.</b> Average plant nutrient content of poultry manure from various sources.			
Moisture%	NitrogenN	Phosphorusas $P_2O_5$	Potashas $K_2O$
95	10 <sup>1</sup> (0.50) <sup>2</sup>	7 (0.35)	3 (0.15)
75	30 (1.50)	20 (1.00)	10 (0.50)
50	40 (2.00)	40 (2.00)	20 (1.00)
30	60 (3.00)	55 (2.75)	30 (1.50)
15	100 (5.00)	70 (3.50)	40 (2.00)
<sup>1</sup> lbs per ton <sup>2</sup> percent Source: Pennsylvania State University Special Circular 315			