

# 10 Minute Supervisor Trainings

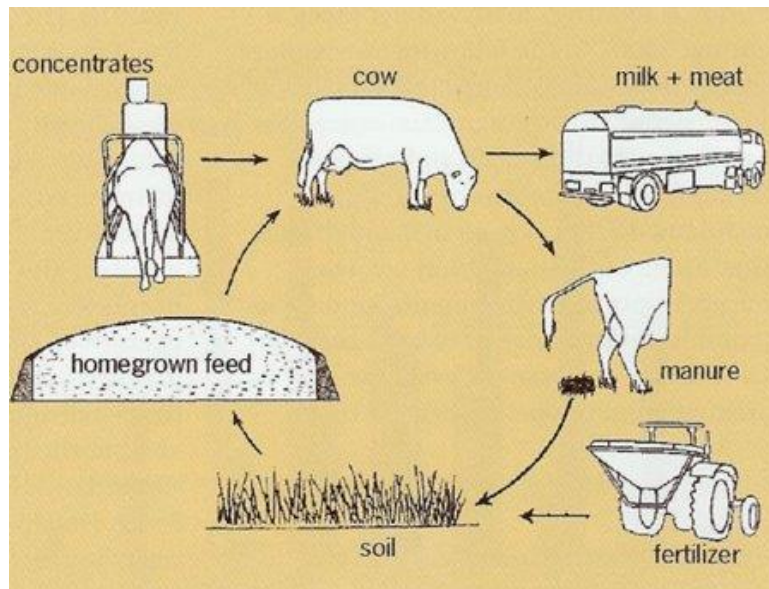
January 2024



## Manure Sampling

Animal manure is an excellent fertilizer for crops and forages. Manure contains nitrogen, phosphate, potash, and micronutrients that are essential for plant growth. Also, applying manure to land can improve soil tilth, increase water-holding capacity, reduce water and wind erosion, improve aeration, and promote beneficial organisms.

Average manure nutrient content values provide estimates that can be used for planning purposes. However, manure nutrient concentrations can vary widely among different farms. Factors that influence the nutrient content of manure include animal species, size and number of animals housed, diet composition, feed efficiency, type of manure storage, and manure management factors (frequency of building cleanout, frequency of flushing pits, storage time, amount of water or bedding added to manure, etc.). The unpredictability of nutrient content makes nutrient testing of manure a critical part of a sound manure management plan. Annual testing of livestock and poultry manure will greatly improve accuracy when managing soil fertility and available soil nutrients when utilized with a Kentucky Nutrient Management Plan or a Comprehensive Nutrient Management Plan.





Kentucky's farms produce approximately 25 million tons of animal manure annually. The nutrients are recycled when the manure is deposited on pastureland. But the manure that isn't deposited on pastureland is accumulated in various places until it can be spread on the land. Livestock waste utilization as a means of improving farm nutrient management levels is not only necessary, it is also very cost effective.

Anytime a producer can utilize the nutrients from the manure that they already have access to means those are nutrients that the producer doesn't have to get from purchasing commercial fertilizer. The producer has to have their manure laboratory tested to know what exactly they have. Once they know what nutrients their stored manure has and in what concentrations, they can use that information along with their soil sampling results to figure out when and where to spread the manure, as well as what other nutrients they need to provide with commercial fertilizers. This helps the producer to spread only what each field needs, which helps to maximize the productivity of the soil as well as the health of the soil.

The conservation district can help the livestock producers in their county by recommending manure testing. It is necessary when completing certain state cost share, EQIP, and CAIP practices, but farmers who are not signing up for those specific practices can also benefit from sampling. Just because they are not signing up for programs doesn't mean that they don't have manure that they could use on their land. Districts can also provide manure testing as a local cost share program, the same way that some districts are currently providing soil testing.

### **Links to more information:**

University of Kentucky Animal

Waste Testing: <https://www.rs.uky.edu/soil/waste.php>

UK Publication

on Sampling: <https://www2.ca.uky.edu/agcomm/pubs/id/id123/id123.pdf>

UK Publication on Using Manure as a

Nutrient Source: <https://www2.ca.uky.edu/agcomm/pubs/agr/agr146/agr146.pdf>

UK Animal Waste

Submittal Form: <https://www.rs.uky.edu/soil/forms/AnimalWasteSubmittal.pdf>