

Manure analysis



Laboratory Services will conduct an analysis of your manure to let you know your nutrient value.

Livestock manure is a readily available resource of the nutrients and minerals essential for good crop growth. Along with its fertilizer value, manure is also recognized for improving soils physical properties by increasing the organic matter content in the soil. On the down side, the nutrients are a potential environmental and health hazard to ground water and streams.

A sound knowledge of the nutrients in manure is essential to meet the demands of the crop nutrient requirements and eliminate water contamination.

Nutrient variability

Recent studies in Nova Scotia and other regions of Canada have shown that the nutrient content of manure varies considerably from farm to farm and even within the same storage facility.

Liquid manure storage facilities sampled in Nova Scotia showed appreciable differences in manure nutrient content for various depths of the manure. Mixing of the manure in storage helps to reduce the problem of variability in nutrient content throughout the storage facility.

The following table shows the variability of nutrient values for different depths in an unmixed liquid dairy manure lagoon. The variability is amplified in unmixed poultry and swine liquid manure storage facilities.

Nutrient values (dry basis) at different depths in an unmixed liquid dairy lagoon.

Depth	% solids	% N	% NH ₄ -N	% P ₂ O ₅	% K ₂ O
Top	6.0	3.34	0.95	2.28	5.14
Middle	4.9	3.52	1.02	2.31	6.05
Bottom	9.4	2.62	0.72	1.81	3.62

How to take a manure sample

A representative manure sample should, ideally, be taken at the time of spreading. For liquid manure, a sample can be scooped out of several tanker loads and mixed together in a bucket. A wide mouth plastic jar with a volume of one litre should be filled from the bucket.

When sampling solid or semi-solid manure at the time of spreading, take a shovel full from a number of loads and place on a sheet of plywood. Using the shovel, chop the manure and mix thoroughly, then spread out the sample and divide into quarters. Discard three quarters, mix the remainder and again divide into quarters and discard three. Continue until the remaining quarter is about one litre in volume and place in a wide mouth plastic jar.

The problem with sampling at the time of spreading is that the analysis of the manure will not be complete until after the spreading is completed. To have an analysis of manure done prior to spreading, a sample must be taken from the manure storage facility.

Liquid manure in storage should be thoroughly mixed before sampling and several dippers full taken from different sections of the storage and mixed in a bucket. A two-litre sample should be taken from the bucket.

When sampling semi-solid and solid manure in storage, use a shovel or dutch auger to sample from various parts and depths of the pile. Try not to sample from the surface of the pile. Mix up and divide the manure until the remaining quarter is about one litre in volume. Place the sample in a wide mouth plastic jar.

It would be beneficial to freeze the sample before shipping, if at all possible.

Hours of Business

Monday to Friday from 8:30am to 4:30pm.

Samples received after 3:30pm will be logged into the system and processed the next business day.

Submission forms are available directly from Lab services or online.

Payment Methods

We currently accept Visa, MasterCard, debit, cash, cheque or money order.

For samples submitted by mail, credit card payment can be made over the phone, or a cheque or money order made out to the Nova Scotia Department of Agriculture can be sent with the sample(s).

Sample drop-off/mail address

Laboratory Services

176 College Road
Harlow Institute
Truro, Nova Scotia
B2N 2P3

For more information

**Nova Scotia Department of Agriculture
Agriculture & Food Operations
Animal & Plant Laboratory**

176 College Road
Harlow Institute
Truro, Nova Scotia
B2N 2P3

Tel: 902-893-6565
Fax: 902-893-4193

**LabServices@novascotia.ca
novascotia.ca/agriculture-labs**