



February 16, 2006

Liquid Manure Injection

Why Liquid Manure Injection

Liquid Manure Injection involves injecting liquid hog or dairy manure directly into the soil with a standard liquid manure tanker equipped with a full tillage manure injector. This practice has potential to increase crop yields, reduce input costs and benefit the environment.

The goal is to demonstrate the value of manure injection over traditional broadcast application. The main drawbacks of surface application is the odour produced and the amount of ammonia nitrogen lost to the air.

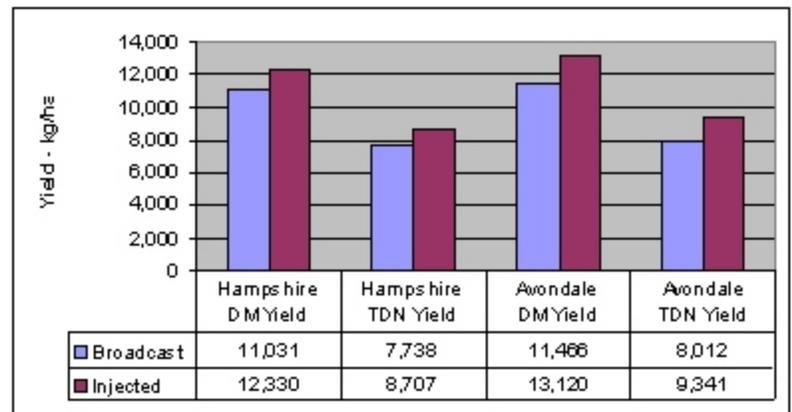
Benefits of Liquid Manure Injection



- optimizes use of on-farm nutrients
- reduces fertilizer costs
- minimizes the release of unpleasant odours
- prevents rapid loss of nitrogen compounds into the air
- as part of a nutrient management plan, manure injection may reduce nitrous oxide production, a greenhouse gas

Observations from Manure Injection Demonstrations

Two Liquid manure injection Demonstration Trials were conducted in 2005. Both trials used liquid hog manure injected prior to planting silage corn. On each site a Nutrient Management Plan was developed based upon soil and manure tests. Fields were split into strips where manure was either injected directly into the soil or broadcasted and then later incorporated into the soil with tillage. All other management and fertilizer practices remained the same between treatments.



Results from these trials showed an increase in both total dry matter (DM) yield and total digestible nutrients (TDN) yield in favor of manure injection, with the Hampshire site being statistically significantly different. The yields within the injected treatments were also more consistent showing less variation compared to the broadcast treatment.

For more information on manure injection or this study please contact the PEI Soil & Crop Improvement Association at (902)887-2535.



The Soil Conservation Council of Canada



Agriculture and Agri-Food Canada

Agriculture et Agroalimentaire Canada



Canadian Cattlemen's Association

Dairy Farmers of Canada



Les Producteurs laitiers du Canada