



## THE SCIENCE BEHIND MANURE

Manure isn't just for plants anymore. Farmers are working with scientists to turn manure into fuel. Manure can be digested by bacteria to produce biogas, which can produce electricity. Forget Old McDonald's farm, science is a driving force behind farming.

## BEST MANAGEMENT PRACTICES (BMP'S)

Farmers often choose to implement best management practices (BMPs). This could be improving manure storages to hold manure for at least one year or upgrading technology in the barn to reduce energy use. Pig farmers use some of the most advanced technology in the industry. Farmers implement BMPs to improve the on and around the farm.

## FARMING FOR THE FUTURE

New technologies and environmental practices improve environmental stewardship and conserve environmental resources for future generations to enjoy. Improved environmental practices on the farm contribute to a safe, more productive Canadian food supply.

## ALL ROADS LEAD TO THE KITCHEN TABLE

Ultimately we all want the same things: a food supply that is reliable, affordable, safe, nutritious, and responsibly produced. We live in a country that is blessed with more food choices than most. It's a matter of choice - choice by you as a customer in what you want to buy, and for the individual farmer as to what to grow and how.

*For more information on pig farming visit:*



ONTARIO PORK  
[www.ontariopork.on.ca](http://www.ontariopork.on.ca)



ALBERTA PORK  
[www.albertapork.com](http://www.albertapork.com)



Sask PORK  
[www.saskpork.com](http://www.saskpork.com)



Canadian Pork Council  
[www.cpc-ccp.com](http://www.cpc-ccp.com)



PORK Nova Scotia  
[www.porknovascotia.ca](http://www.porknovascotia.ca)



PEI PORK  
[www.peiflavours.ca](http://www.peiflavours.ca)



Virtual Farm Tours  
[www.virtualfarmtours.ca](http://www.virtualfarmtours.ca)



Caring for the Land  
[www.caringfortheland.com](http://www.caringfortheland.com)



## FARMERS: THE ACTIVE ENVIRONMENTALISTS

Farmers and their families live very close to the land and understand the importance of healthy soil, water and air. Farmers respect and depend on the environment to create a healthy place to live as well as the right conditions to grow crops and raise livestock.



### A Report Card for Farmers

Across Canada, a voluntary program called the **Environmental Farm Plan** is helping farmers audit farm operations for environmental concerns and set goals and timetables for improvements.





## THE MIRACLE OF MANURE

Are you curious to know what makes manure so special? We sure hope so!

Manure is the original fertilizer, rich in nitrogen (N), phosphorous (P) and potassium (K) and 100% organic. Nitrogen makes plants green and healthy, and phosphorous and potassium help build the roots and body of the plant.

Farmers can use technology mounted on tractors to determine leaf "greenness" (chlorophyll content). This tells the farmer exactly where to apply nitrogen to conserve resources and the environment.

## THE PIG PICTURE:

Plants, animals, people, and the natural environment form a cycle necessary for all life to thrive. Plants require soil, nutrients and a mix of sun, rain and favourable temperatures to grow. Plants absorb pollutants in the air such as greenhouse gases and convert them to oxygen, helping everyone breathe cleanly. Animals eat the plants and then provide manure to fertilize more plants.

This process is referred to as the **nutrient cycle**. People eat plants and animals and we enjoy the fresh air that plants provide.

## TO THE FIELDS

Manure is a major part of plant growth. Farmers apply manure in a variety of ways. It can be injected into the soil or spread on the land with different machinery. Farmers decide when to apply manure based on the soil, time of year, weather, and type of plants.

Manure spreaders are large pieces of equipment, but only apply about a 5mm layer of manure onto the soil.

## DOES MANURE CONTAMINATE WATER?

Farmers apply fertilizer and manure in a sustainable way. If it is not properly managed, it could contaminate water, but farmers are tackling this topic head-on. This is known as **nutrient management planning**. Manure, commercial fertilizers and all other nutrient sources from farmland are part of nutrient management. Farmers want to maximize the benefits of nutrients while ensuring environmental protection is how they are doing it:

- Testing the soil and manure to know exactly what nutrients need to be added
- Knowing how much manure and fertilizer is being applied and by what methods
- Storage that is insulated and can hold manure for up to one year
- Having enough land to spread manure on and
- Contingency planning so that in the case of an emergency it is dealt with swiftly and effectively

## WATER WORKS:

Water is necessary for all life, including farm animals like pigs. The average pig uses about eight litres of water each day. In comparison, the average Canadian uses 329 litres of water in a day. Since pigs don't wash dishes or take showers, it's difficult to compare them to humans. Farmers are responsible for water management and protecting water resources.

Real Dirt on **PIGS** & the Environment

