

ONTARIO SHEEP



Environment

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Farmers Lead by Example



Ontario Farmers have become recognized world leaders for their environmental practices. They don't just talk about saving the environment, they work at it and invest in it every day.

For example, in the last decade, over 33,000 farmers made environmental improvements on their farms through the Environmental Farm Plan (EFP) program. Over \$100 million of their own money has been invested in on-farm environmental improvements, including new manure storages, tree planting and stream restorations.

Although many of us are no longer directly associated with farming, Canadians can be proud of the innovations on farms across the country. Farmers are the original environmentalists and they really do strive to maintain a balance every day of the year - their families, land, animals and businesses depend on it.

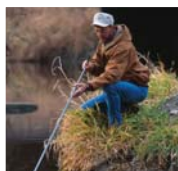


Commitment to the Future

One thing is certain - if we are to feed a growing population, while preventing damage to the environment and natural processes - agriculture must continue to make advances.

Finding new and better ways to raise farm animals and protect the environment is important to farmers. Investing in research is one part of their commitment.

- Research throughout the world, including the University of Guelph and University of Manitoba is tackling the odour issue at the source. Changing animals' diets can minimize nitrogen and phosphorus excretion losses and reduce manure odour.
- Research at the University of Waterloo confirmed that liquid manure storage systems are sound and have minimal impacts on groundwater.
- Ontario's hog farmers are funding research to look at the use of swine manure to control soil-borne diseases, such as potato blight, to replace pesticides.
- A five-month study at the Veterinary Infectious Disease Organization in Saskatoon determined the air 600 metres downwind of swine barns is as 'fresh' as air 2.4 kilometres upwind of a swine barn, with no more risk of infection than fresh air.



For a snapshot of research from around the world on agriculture and the environment, visit www.prairieswine.com

Farmers Follow the Rules

Farmers know that the fundamental roots of agriculture are clean water and healthy soil. They want proper safeguards in place to protect water quality and everyone's health.

Examples of federal and provincial environmental laws Ontario farmers follow are:

- Farming and Food Production Protection Act
- Drainage Act
- Environmental Protection Act
- Fisheries Act
- Lakes and Rivers Improvement Act
- Ontario Water Resources Act
- Pesticides Act

In 2003, the Ontario government introduced the Nutrient Management Act, and in 2007 the Clean Water Act was introduced. For more information on these rules, visit government websites.

Did you know... Over 80% of farmers have taken courses on proper pesticide use, nutrient management, environmental farm plans and livestock medicine. Almost two thirds of livestock farmers have some post-secondary education.

Being Neighbourly

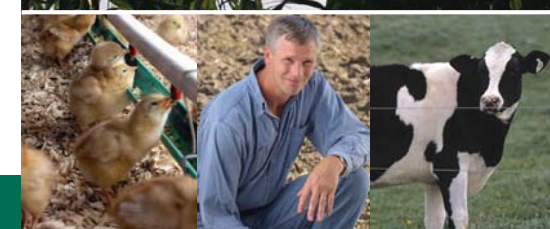
A study by Dr. Wayne Caldwell at the University of Guelph confirmed that farming does not have to adversely affect neighbours. He found that:

- 58% of neighbours did not have to change their normal activities due to the livestock farm in their neighbourhood
- 83% of neighbours had never expressed a concern about the nearby livestock farm



Farm Animals, Farming & the Environment

Canadians are more aware of environmental issues than ever before. So are Canadian farmers. Less than 3% of Canadians farm today, leaving few people who really know the how's and why's of today's farms and their environmental practices. In recent surveys, less than 7% of Canadians felt they were well-informed about farming today. This resource aims to change that, giving you the farmers' perspective and answering some common questions about farm animals and the environment.



Find out more and take a virtual farm tour at www.farmissues.com



The Ontario Farm Animal Council is the voice of animal agriculture, representing livestock farmers and associated businesses.



With thanks to Ontario Pork
www.ontariopork.on.ca

FARM ANIMALS, FARMING AND THE ENVIRONMENT - MAINTAINING A BALANCE



Maintaining Balance

Feeding a growing world population on less land with less resources presents the ultimate challenge for farmers around the world. The importance and demands on farming is expected to increase as income growth and urbanization fuels a strong increase in demand for quality food.

Canadian livestock farmers are aiming to meet the demand with a balance between environment, community and economic returns. To maintain the balance, they must protect the environment, minimize impact their farm may have on their neighbours, and aim to make a fair income for their family business.

Did you know... 98% of Canada's farms are family owned. Today's farms are larger than in the past, but they maintain the same core values and commitment. Many farm families work together to grow crops and raise farm animals.

Water Quality - Important to All of Us

Why do farmers take their environmental responsibilities so seriously? **Their families and animals drink the water from wells and watercourses on their farms. They breathe the air. They rely on the land and crops for their livelihood.**

Here are a few ways farmers have helped to improve water quality:

- Protecting waterways with buffer zones (dedicated areas of land with plants and grasses)
- Reducing soil erosion and agricultural input runoff into waterways
- Improving the handling of fertilizers, manure and pesticides

Did you know... Research shows that people use an estimated 227 litres of water per day for all uses. Pigs use 5.7 - 11.3 litres per day and a beef cow uses 35-66 litres per day.

What is Nutrient Management?

Nutrient management is the science that ensures water quality and soil health, crop yields are maximized, and odour from manure is minimized. In Ontario, the Nutrient Management Act outlines the regulations and laws in a uniform approach that farmers must follow across the province when making their nutrient management strategy.

The components of a good Nutrient Management Planning Strategy are:

1. A nutrient management plan
2. Minimum distance separation
3. At least 240 days of manure storage space.

When Nutrient Management Plans are followed properly, the size of a farm or number of livestock is not the question - the number of animals should match the amount of land and crops available to use their manure.

What's in a Nutrient Management Plan?

- Soil test results (measuring nutrients found/or lacking in soil)
- Manure test results
- Proper storage of nutrients (like fertilizers and manure)
- How & when to apply nutrients to crops
- Calibrating manure spreaders (for accurate application)
- Identification & mitigation of environmental risks
- Contingency plans (what to do if things go wrong)
- Good neighbour policy

How Close is Too Close?

Municipalities enforce minimum distance separation, which identifies the required minimum distance a new barn can be located from a residence and/or business. Minimum distance is determined by the number of livestock units (numbers of animals that varies with each farm animal species) the barn may hold, the type of manure produced, size of the expansion, and other land use factors.

Manure - The Natural Nutrient

Manure has always been the original fertilizer. As gardeners know, livestock manure is definitely not a waste - it provides important natural fertilizers and soil conditioners.

Farmers use manure to:

- improve crop yields
- add organic matter to improve soil quality, including water & nutrient holding capacity
- enhance soil porosity for better aeration and drainage
- reduce runoff and soil erosion potential
- encourage growth of beneficial soil organisms

The main nutrients in manure are nitrogen (N), phosphorus (P), and potassium (K). Nitrogen is essential for all of life processes in plants, and lack of nitrogen often limits plant growth; phosphorus is needed for healthy roots; and potassium for protection from wilting, disease and cold.

Regular soil testing allows farmers to apply only the nutrients their crops require, at the times when the crops can best use them. This is good for the environment and makes economic sense for the farmer.

Did you know... One inch of rain puts 100,000 litres of water on an acre of land. Approximately 15,000 litres of manure is applied per acre in an average growing season.

Storing & Applying Manure

Nutrient Management Plans and good farming practices require responsible manure storages and application.

The size of the engineered manure storage farmers must build is based on the number of animals that will live in the barn. Manure storage facilities must be large enough to hold all the manure that their animals produce for up



to at least eight months. This allows farmers to store the manure until the time is right to spread it on the land.

Modern manure equipment can inject or work manure into the soil, or spread it on top of the land. Some manure equipment is so advanced it uses GPS technology with satellite image grid-maps of a field to apply exactly the amount of manure that's needed in each section of the field. Some parts of a field may need more, other areas less.



What about the smell?

Manure has always had a certain smell. Some amount of odour is expected from any farm, from barns, manure storages and applying manure to fields.

New manure management techniques and practices are helping to reduce smell. For example:

- Distance from neighbours and prevailing wind patterns are factors when choosing new barn sites.
- Engineered, well-maintained concrete manure storages.
- Manure mixing equipment to control the release of odour.
- Timing application on cool days, when prevailing winds are away from neighbours or nearby communities.

Farmers and industry stakeholders such as equipment manufacturers are making odour control a priority. Researchers continue to look for new ways to measure and reduce smell.

Did you know ...

Canada has 168 million acres of farm land: approximately 2/3 suitable for growing crops and 1/3 suitable only for grazing livestock.



Participating in the Growing Forward Business Development for Farm Businesses Program can help achieve business goals in such areas as Food Safety and Traceability, Business Development, Environment and Climate Change, and Biosecurity. By taking part in this program, a producer may be eligible to receive up to 50% cost share funding towards travel, tuition and textbooks. In order to participate in this program a producer must attend a Growing Your Farm Profits (GYFP) Workshop. This free two-day workshop will help a producer develop an action plan, review farm management practices, help organize goals for the future, identify resources and build on business strengths.

Once a producer has completed his or her action plan; they could choose to hire a professional Farm Financial Advisor. The Growing Forward Program may cover up to \$2,400 in costs to hire such an advisor and the producer would be required to pay \$100. A Farm Financial Advisor can evaluate past financial performance, review the current farm business situation, perform a ratio analysis and assessment of profitability, liquidity, etc. The advisor can also provide options to meet the farm business profitability goals.

If a specific skill requirement is included in the action plan, then an eligible farm business could receive cost share funding of up to 50 percent or a maximum of \$3000. Farm-related courses include Sheep Shearing School, Succession Planning for the Successor, Nutrient Management Act: Regulation and Protocols and Understanding Sustainable Agriculture: Principles and Practices, to name a few. A complete list of training opportunities and skills are available at <http://www.omafra.gov.on.ca/english/busdev/gfwdasdeligiblelist.htm>.

Advanced Business Planning can also be accounted for in the action plan; this involves working with an Advanced Planning Consultant to focus on areas such as expansion, marketing, diversification, succession and feasibility plans. An eligible farm business could receive up to 50 percent in funding or up to a maximum of \$8000 which is required to be stated in the action plan.

To implement components of an Advanced Business Plan, a farm business could receive cost-share funding for one-time capital costs to carry out projects such as business agreements, specialized contracts, licensing agreements, certification, etc.

The first step in participating in this program is to attend a GYFP workshop; details about the program can be found at www.ontario.ca/growingforward or call OMAFRA at 1-888-479-3931. For a list of workshops please refer to the table below. A complete schedule of workshops can be found at www.ontariosoilcrop.org/en/Programs/GYFP091.htm or contact your local Ontario Soil and Crop Improvement Association for one near you.