



LAND IMPROVEMENT
CONTRACTORS
OF ONTARIO

www.drainage.org

ONTARIO CROPLAND DRAINAGE

A SHORT HISTORY

THE LAND IMPROVEMENT CONTRACTORS OF ONTARIO (LICO) is an association of professional contractors, suppliers and associated industries primarily concerned with agriculture and cropland drainage in Ontario. LICO contractors do the design and installation of most cropland subsurface drainage systems and are licensed under the "Agricultural Tile Drainage Installation Act". Some are also certified to install surface water management and erosion control structures.

To be "licensed," the contractors must undergo specialized training and pass exams in soil and soil management, land survey, cost effective drain design, environmental issues and drainage, and associated legislation. Contractors must also demonstrate a high level of competence in the use of drainage installation equipment before they are licensed.

In addition, the licensed contractors must use Ontario-certified installation equipment to further ensure accuracy in their work.

Government involvement has encouraged drainage and adoption in an orderly and responsible way. In the early years, drainage was necessary to reduce insect populations - like black flies and mosquitos that brought malaria. More recently, it was recognized that soil moisture - too much or too little - is the first limiting factor in crop production. In Ontario, too much moisture is a problem, so more than half of our cropland benefits from drainage.

Over the years, farmers and drainage contractors, together, have made great progress in cropland improvement. In the 1840s, the first clay tile was made at Port Darlington, east of Toronto. In the 1890s, the first Buckeye Steam Powered trencher was built in Ohio. In the 1910s, short courses were offered on drainage. Cropland drainage rapidly increased through the 1950s when the first

Drainage Guide was published for Ontario (Ross Irwin). Drain pipe installation really accelerated following the 1960s, when plastic drain pipe, trenchless plows and laser grade control were introduced. More recently, GPS is being used to control installation equipment and to produce highly accurate drainage maps.

Drainage contractors first organized as the Ontario Farm Drainage Association in the early 1900s. Eighty years later the name was changed to the Land Improvement Contractors of Ontario, to better-reflect their important role in cropland management.

The organization includes about 90 contractors who constantly engage in professional development through their annual conference, where the focus is on new and better technologies, and safety training. They attend field days and share information through their newsletters. LICO is engaged in many activities: The organization supports soil/water/drainage research and, for the past several years, has supported an elementary school soil management teaching project. Contractors have participated in the production of Best Management Practices manuals, and they review and are called upon frequently to challenge legislation that has negative impact on the farm community.

LICO has an important role to play as a partner in cropland management and our food production system. When we combine its members' commitment with technical capabilities and their long-time experience (in some cases several generations), their customers and the environmentally concerned can have a high level of confidence in their work.

Globally, Ontario is considered to have the gold standard for cropland drainage.

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Legislation has led to orderly, high quality drainage work:

- 1790s** Drainage was included in the first legislation in Upper Canada.
- 1830s** Act to regulate construction of watercourses.
- 1850s** Municipal Institutions Act provided for drainage by petition.
- 1860s** Ontario Drainage Act passed and Public Works became responsible for outlet drainage.
- 1870s** Ontario Tile Drainage Act provided funding for on-farm tile drainage.
- 1890s** Municipal Drainage Act added dispute resolution mechanisms to the Drainage Act.
- 1910s** Drainage Supervisors were appointed.
- 1950s** A grant for outlet drains was set at 33 per cent. The Ontario Department of Agriculture became responsible for drainage.
- 1970s** Agricultural Tile Drainage Installation Act passed and contractors became licensed.
- 1980s** Most municipal drainage superintendents trained by the Province.



The Land Improvement Contractors of Ontario (LICO) is an association of professional drainage contractors and suppliers of drainage pipe and equipment. The focus of their business is soil moisture management to enhance crop production in Ontario.