



IN THE TRENCHES

June 2006

"Drainage Doesn't Cost - IT PAYS!"

www.drainage.org

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From the President's Desk

Hello Fellow Members.

First I would like to congratulate Ross Irwin on his induction to the Ontario Agricultural Hall of Fame. Ross is the first person from the drainage industry to be given this honor, it is long over due. Ross should be very proud of his contribution to the agricultural industry and he is very deserving. Congratulations Ross!

Two very important issues facing us today. The Clean Water Act, and the pricing I am seeing now.

Don Lobb has been working very hard on our behalf, on the Clean Water Act submissions. It looks like the government is going to try and fast track this legislation. Don has prepared a brief, on the effects it will have for some stakeholders. It has been sent to the Municipalities as they can lobby against the legislation as it is written. Each of you were mailed as copy as well.

We as a group need to make sure everyone who has a stake in this legislation understands its negative effect. Everyone must let the government know how this Act is a mistake in its present form. Municipalities, your elected officials and other stakeholders must lobby against it as it is written. Please let your elected officials know its impact so they can stop the process before it is too late.

The second issue is the work load we are seeing and the effect it is having on pricing. I have just lost a job at prices I cannot believe. It is a price I have not seen for several years. It is like I have stepped back into the late 80's early 90's.

I know work load seems scarce, but guys, we cannot work for prices of 20 years ago. We are going to set a precedence that will take years to come back from. Do you really think we can survive working at these prices at today's expenses?

It almost seems like the word is out that we are not busy and now the farmers are going to use this to pay less. I mean a lot less, unheard of prices for today's costs. We cannot allow ourselves to be caught in this situation. We need to stick to our guns and not fall back 20 years, it will take too long to get the prices back to current levels if we don't.

Please think long and hard of the consequences of this, and the history that tells us what a mistake it would be to panic. I ask you to be strong and keep the prices where they have been. I think we can survive at those rates, anything less would be a disaster. Please think about it.

I hope you all can have a successful year.

Your President,
Steven Cronsberry

Residents of Lambton Shores Ponder True Cost of Water – (Excerpts from Ontario Farmer, April 25, 2006)

Chris Williamson is a half mile from a main water line, and three miles from Lake Huron, but she doesn't have well water for her hogs.

They use untreated surface water from a pond dug to water the pigs, and serve their household, but they buy drinking water in five gallon jugs.

John Gilliard estimates he's spent \$40,000 over the past 30 years drilling wells and installing pumps and pipes to meet his water needs.

After years of thirst in the dry pockets of Lambton Shores, rural residents like Williamson and Gilliard have their palates whetted for connection to a new pipeline from the lake.

The Mayor of Lambton Shores explained the municipality's water project will only qualify for up to \$11.2 million in grant money if the water goes to all rural residents, whether or not their wells are dry and their water is potable.

Council is proposing that rural residents pay \$2500 for each lot the pipeline passes, and \$7500 for each residence while residents of Thedford and Arkona who have already paid for their infrastructure, will pay \$681 per household, or a total of \$2.7 million.

Rural residents reply that they've already paid for their infrastructure too. It's in the form of wells and pumps and pipes.

Don't forget ongoing costs, warned Syd Fletcher of Forest. "Be prepared for a huge cost for the actual water that's coming to you," he said, noting that a sudden rate hike has pushed his monthly water bill to about \$100.

Rural residents who use the pipeline will also have the cost of decommissioning their wells, because the wells and pipeline cannot be interconnected.

Farmer Learns Expensive Lesson in Groundwater Ownership – (Excerpts from Ontario Farmer, March 14, 2006)

It was a two-year battle between Quebec farmer Murray Bennett and the town of Grenville, but after a one-time cheque was written for \$50,000, the taps were turned on releasing 1.28 million gallons of water a day from under Bennett's land to the town.

His family has owned their beef and maple syrup farm near the Ontario border since 1820, but when the town wanted water from under their land for virtually no money, "we couldn't do anything about it," said Bennett.

A couple of years ago the letter came from town to Bennett and a number of his farming neighbours asking permission if they could come onto their land to look for water. "We told them they could go on, but we didn't realize that they already knew where the water was."

The initial offer from the town was \$12,000, which increased to \$28,000. The final offer of \$50,000 plus

his legal fees, came only after a long drawn-out fight.

The town now legally owns one acre of land where the pumping station is located and while Bennett still owns the nine-acre field on which it's situated, he cannot spray or fertilize so is reduced to cutting a poor crop of hay each year. "We had no say in anything," said Bennett.

There was no compensation for the water itself but only for the land being purchased and the restrictive use on the surrounding area.

If you have articles, events or notes of interest you wish to add to this newsletter, please send your submissions (not more than **225** words) to the following:

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ROSS WESTON IRWIN (1921 -)



Ross Weston Irwin is recognized for his outstanding contribution to the field of water management. Following graduation in 1951 from the Ontario Agricultural College he embarked on a 36-year career in teaching, research and extension at the School of Engineering, Ontario Agricultural College, University of Guelph. He taught courses in hydraulic engineering, irrigation and drainage, soil and water conservation engineering, agricultural soil mechanics and snow and water hydrology to name a few. His research interests included land drainage technology, pump drainage, farm water supply, hydrology of organic soils and soil analysis for drainage. As an extension coordinator he organized technical conferences and wrote publications on a wide scope of subjects.

Through research and extension to farmers, contractors and practicing drainage engineers, Ross advanced the art and science of soil water management and drainage throughout Ontario and the humid regions of the United States. He wrote the first edition of the Drainage Guide for Ontario in 1957. This document has become the standard used by farmers, tile contractors and drainage engineers. Since then the Guide has been revised 10 times and is currently undergoing an 11th revision.

Ross is particularly adept at moving innovations from the laboratory and research plots to the hands of those who design and install farm and road drainage systems. When plastic drain tubing was a new product he developed the "thumb test" to determine if the tile was strong enough to withstand the stress of installation and soil settlement. He created the "coffee can test" to illustrate whether or not a soil needed a filter around the tile or tubing. Without his leadership the adoption of plastic drain tubing and the drainage plow for installing tubing would have been much slower.

He personally funded the first meetings of tile drainage contractors in Ontario. From this initiative the Ontario Farm Drainage Association was formed in 1958. This Association provided a forum for contractors to exchange ideas, solve problems and set quality standards for tile installation. He bridged the information gap when new installation techniques such as the drainage plow and new materials such as High Density Polyethylene Tubing became available. Under Ross's leadership contractors have tile drained much of the productive land in Southern Ontario.

Ross chaired the committee assigned the task of consolidating Ontario's drainage legislation in 1962. He also acted as a consultant to the Provincial Government after the Select Committee on Land Drainage Report was filed in 1974 and to a great extent guided the drafting of the Drainage Act 1975.

Following Hurricane Hazel in 1954 Ross studied the effect of storms on farm ponds and developed a methodology for designing farm ponds. This methodology was adopted by the Government of Ontario and is still used. At this time he was also monitoring the organic soils of the Holland Marsh and went on to develop a water management plan that reduced the rate of oxidation of these soils and prolonged the agricultural productive life of the marsh. His recommendations have been adopted for use in organic soils throughout the humid areas of North America.

Ross was a prolific writer and he contributed over 135 reports and papers to referred journals and professional publications. As a result, it seemed natural that Ross's interest in rural life should lead him to publish books on agricultural machinery, the history of drainage in Elma Township and the history of Mariposa Township.

Ross Irwin's outstanding contributions to the advancement of agriculture have been recognized by many professional societies. These societies include the Canadian Society of Civil Engineering, the Land Improvement Contractors of Ontario, the Ontario Good Roads Association, the American Society of Agricultural Engineers, and the Canadian Water Resources Association. In addition, he has received several awards including the Centennial Medal from Canada.

2006 Sponsored by The Land Improvement Contractors of Ontario

Student Involved in Groundbreaking Learning Experience – (The Focus, March 16, 2006)

Scientists near Exeter are doing original research into water quality, nutrient management and soil conservation – and they're only in grades 7 and 8!

Usborne Central Public School students in the class of teachers Kim Hayter and A.J. Moses have had a unique, hands-on, curriculum-based learning experience this year as they researched soil, nutrient and water management practices and sustainable food and crop production through practical experiments and original labs and research.

The students presented their experiments and research at an Open House on Tuesday, March 7. During the afternoon event, the students heard from conservation tillage pioneer Don Lobb, formerly of the Clinton area; award-winning conservationist Jim Ginn, who farms between Clinton and Goderich and Paul McCallum, of Walton, Past President of the Land Improvement Contractors of Ontario. (LICO).

ABCA Conservation Education Specialist Matt Redmond and several community members visited the Usborne classroom to teach students about ecosystems management, sustainable food and crop production practices and impacts on watersheds species.

“What was really fun was learning things we didn't know before,” said student Amber Cooper, who worked with fellow group members on a project called “Drainage Pays, using the scientific method. Projects included soil testing and had titles such as “Organic Matter Matters.”

The in-depth school program grew from the initiative and commitment of the teachers as well as the donation of time of community members, according to the ABCA.

Usborne Central Public School is the first school to join the '60 Classes for 60 Years Challenge as part of the Ausable Bayfield Conservation Authority's celebration of 60 years of Conservation in 2006.

“By focusing on such subjects as ecosystems management and sustainable food and crop production in the classroom, Usborne Central Public School has set an example of how local schools can be involved in the ABCA's celebration of 60 years of Watershed Conservation,” said Redmond.

ABCA staff were involved in the project guidance, background research and available to answer questions. The ABCA presented the students with a certificate honouring them for their interest and innovation in sustainable practices.

“Thanks, Usborne Central Public School Grade 7/8s for being a local champion in the ABCA's 60th Anniversary Celebrations,” said Redmond.

OFA Wants Water Law Revamped – (Excerpts from Ontario Farmer, April 25, 2006)

OFA directors unanimously endorsed the position paper prepared by the Ontario Farm Environmental Coalition (OFEC) in which numerous concerns with the legislation are highlighted including inadequate compensation to affected landowners, strong opposition to accessing property through a permit system rather than a lease or purchase agreement, a lack of emphasis on water efficiency and conservation, and an inadequate appeal process.

OFA backs OFEC in its position to have the legislation withdrawn and re-written to include appropriate levels of compensation and other issues of concern to farm property owners.

Lines from Lambton - Dean Hodgson

The spring started out dry and quiet in Lambton County as snows slowly melted away, fields dried off and farmers were on the land much earlier than usual. Sugar beet growers finished seeding early and swung right into their corn fields. As they found the soil was in such beautiful condition many farmers planted more acres of corn than originally planned. When May arrived with little change in the weather some farmers continued right on seeding their soybeans. However, heavy rains arrived on May 11th and somebody forgot to turn it off ! Although some areas were harder hit than others by late May over 6" of rain had fallen on most farms in Lambton County. Needless to say, the early spring work came to a sudden halt and many farmers began to wonder about the capacity of their older main drains when the heavy 1"- 2 " downpours hit. Water lying everywhere and it looks as if the rest of the spring seeding will be delayed into June.

Although the beautiful spring weather was great for early seeding it left most tile drain contractors home in the shop getting their equipment into extra good condition for what began to look like a very slow drainage season. The dry weather combined with the farm income problems have caused Lambton farmers to view the future cautiously.

Ken Jaques says most contractors had a few small jobs for the spring and the beautiful weather provided perfect working conditions for completing this early work. Some Lambton contractors also found some spring work in the Dresden, Tupperville and Wallaceburg areas. Ken Jaques, Frank Wilson and Randy Philips were among the contractors working on the lighter soils in Kent County in April and May.

Visited with Dave Snobelen of Kent Bridge and he gave us a demonstration with his new tile drain locator. His machine can locate plastic or clay tile plus buried utility lines, such as gas, hydro or telephone. Although still working out the bugs of this machine he bought last fall Dave is available to help contractors locate field tile. He can be reached by phone at 519-674-0504 or by email at snobelen@ciaccess.com.

Health problems have plagued some of Lambton's contractors as the spring season arrived. Veteran contractor Harvey Ferguson of Enniskillen, is recovering from heart surgery performed in May, after difficulties suffered last winter. Wayne Wilbur of Sombra, is recovering from two knee operations and plans to spend most of this season at a much slower pace. Rolland Nantaise of Moore is also recovering from a spring operation. We wish them all a quick recovery.

The May 16th Ontario Farmer printed a report that Manitoba Agriculture is emphasizing the down-side of tile drainage rather than its benefits. Just as tile drainage was slowly growing in Manitoba and their farmers beginning to realize the benefits of subsurface drainage there is now growing concern about nitrate runoff. At a recent Tile Drainage Workshop farmers were told it is time to stop asking IF tile drainage contributes to water contamination and start addressing the environmental risks. Some Manitoba studies conducted during the 1990's appear to show that drainage water is leaching nitrogen from farm fields. Manitoba Agriculture hopes to do more studies as to inform farmers of the potential problems of tile drains leaching the nutrients from their farm soils. These studies are to be part of a new Clean Water Act.

Perhaps Manitoba Agriculture should contact the researchers at the Harrow Experimental Farm in Essex County. At Harrow they have been studying tile drainage runoff and possible solutions for many years. The Harrow drainage researchers have been measuring the content of the runoff and learning how to save and return these nutrients to the field crops. With this research information the Manitoba government could assist their farmers in taking advantage of the benefits of tile drainage. Manitoba could also use these studies to help design a farmer friendly Clean Water Act.

In the meantime perhaps LICO should also be paying more attention to the work being carried out at the Harrow Research Station and making plans for improving the tile drainage systems here in Ontario. Rather than waiting until someone else sets stringent rules too difficult and expensive for agriculture we should be more progressive rather than defensive. Obviously OMAFRA no longer promotes drainage benefit studies.

Noticed there were some familiar names in the recently released members of OMAFRA's \$100,000 club. For all of us who missed working days while attending drainage meetings for free, stayed up nights writing letters to editors and thought we had won the battle over the drainage program it was a shock to see who had been rewarded.

(Cont'd. Page 6)

Lines from Lambton *(Cont'd from Page 5)*

Moving up in the income tax brackets was Frank Ingratta, who has long been known to Ontario farmers, Frank tops the OMAFRA list at \$196,806. Jim Wheeler attended many of the drainage meetings scheduled at times we should have been home working, is now at \$149,849. Who could forget the officious Charles Lalonde but he has been rewarded for his failed efforts at \$113,893. Michael Toombs who proudly declared at one meeting that HE was the author of the of the proposed changes to the drainage program without any consultation with the industry. Michael is now receiving \$112,445 annually from the shrinking Agricultural Budget. (hopefully he is no longer connected to the drainage sector). So apparently there were some who benefited for all the problems LICO, municipalities and farmers have endured the past few years as we fought our own government officials to save Ontario's historic Drainage Act.

Obviously there is money to be made in agriculture, just not on the farm.

Dean Hodgson, May / 06.

CFFO Outlines Plan to Improve Clean Water Law – (Excerpts from Ontario Farmer, April 11, 2006)

CFFO proposes guarantees that at least one member of the source protection planning committees (SPPC) be a representative of the agricultural community and preferable one involved as a fulltime owner-operator of a mixed farm operation that includes livestock.

There is also no mechanism within the legislature that requires the farmer/landowners, who will be expected to implement a plan, to be involved in the consultation process.

Other recommendations include the requirement that all source protection plans (SPP) be subjected to a public hearing being overseen by an independent third party.

CFFO is also concerned that an assessment of costs, including a budget for implementation and an outline of available sources of public funding are not part of the planning process.

CFFO insists that the SPP must include remuneration for any additional costs incurred for having to maintain adequate liability insurance, that there be an appropriate appeal mechanism in place and that there be no downloading of costs to farmers/landowners, including the cost of permits.

Everything I need to know about life -- I learned from Noah's Ark

One: Don't miss the boat.

Two: Remember that we are all in the same boat.

Three: Plan ahead. It wasn't raining when Noah built the Ark.

Four: Stay fit When you're 600 years old, someone may ask you to do something really big.

Five: Don't listen to critics; just get on with the job that needs to be done.

Six: Build your future on high ground.

Seven: For safety's sake, travel in pairs.

Eight: Speed isn't always an advantage. The snails were on board with the cheetahs.

Nine: When you're stressed, float a while.

Ten: Remember, the Ark was built by amateurs; the Titanic by professionals.

OMAF News - Sid Vander Veen, Drainage Coordinator

Tile Loan Program: By letter dated June 6, 2006, the 2006/07 Tile Loan Program was announced to municipalities. The loan interest rate remains at 6% and the loan limit continues to be \$50,000 per farmer per year. The 6% interest rate, fixed over the 10-year term of the loan should be quite attractive to farmers. Please direct you farmer clients to their local municipalities to apply for the loan. Remember, they must apply for the loan before performing the work.

Some contractors agree to wait for payment for the tile drainage work they perform for their client until the client receives the tile loan money from the municipality. If you do this, how do you ensure that when the farmer client receives the money, he turns the money over to you? How do you make sure that your farmer client doesn't use the tile loan cheque to pay other bills? Occasionally I get asked, "To protect the contractor, why can't the municipality make out the tile loan cheque in the name of the contractor?"

Tile loans are an "encumbrance" or debt on a specific property and are treated similar to a tax. Therefore, there is no way that a municipality can make the cheque out to anyone other than the owner of the property who applied for the loan.

However, here are two possible ways for a contractor to protect themselves:

1. Don't agree to wait for payment until the tile loan money is received by the landowner; or
2. Tell the landowner that you will only agree to wait for payment until the tile loan money is received under one condition. The condition is that the landowner must agree to submit a letter signed by the property owner(s) requesting the municipality to make out the tile loan cheque jointly in the name of the property owner(s) and the contractor. Before you suggest this to the landowner, you should first check with the municipality to see if they would agree to take this action if this type of letter was submitted by the landowner. If the cheque is made out jointly, it can only be cashed after all named parties have signed. Therefore, you can ensure that the cheque will be in your hands before its cashed.

Agricultural Tile Drainage Installation Act: As of June 26, 2006, in the province of Ontario there are 90 licensed tile drainage businesses using 178 tile drainage machines. Of the 178 machines, 110 are ploughs, 58 are wheels and 10 are chains. A total of 396 individuals have a valid machine operator's licence. We will be posting a list of licensed tile drainage contractors on our website in the very near future (www.gov.on.ca/OMAFRA/english/landuse/drainage.htm)

Working as a tile drainage contractor without a business license contravenes the *Agricultural Tile Drainage Installation Act*. If you find someone operating illegally in your area, please let us know. We will investigate, and if we can catch them in the act, we will take action against them.

Clean Water Act: Bill 43, commonly known as the Clean Water Act, was given 2nd reading on May 18, 2006 and was then sent by the legislature to the Standing Committee on Social Policy for consideration. This committee has not set any dates or locations when they will be considering this draft legislation. Since this legislation could have significant impacts on agriculture in general and drainage activities in particular, your LICO executive continues to have a strong interest in this legislation.

Sid Vander Veen
Drainage Coordinator

Fine Proposed in Deadly “Gas and Dash” – OHS, May 2006

Provincial investigator say an employer’s failure to enforce its own late-night security policies at a gas station in Maple Ridge, British Columbia contributed to the death of Grand De Patie last year.

The 24-year-old gas station attendant was dragged to his death on March 7, 2005 while trying to prevent a gas-and-dash theft, where customers drive off without paying. De Patie was the lone worker on the night shift.

A 16-year-old customer, who sped away owing \$12.30 with De Patie caught under the vehicle, recently pleaded guilty to a charge of manslaughter.

Following completion of its own investigation, WorkSafeBC is recommending a penalty against the station owner and operator, Sandhurst Properties Inc., says a board spokesperson.

A WorkSafeBC report concludes that De Patie’s death would have been prevented had the employer enforced policies regarding nighttime work at the gas station/convenience store. Security policies were available with respect to not being outside, locking the door (a magnetic lock would allow access to the store only when the attendant activated a switch), and ensuring that payment for gas was made by credit or bankcard at the pump or in person at the window to the station.

It appears, however, that these policies were routinely broken and there wasn’t adequate supervision to correct the problem. “The actions taken by the attendant regarding not locking the door and being outside appear routine and management has stated that they have occurred before,” the report says. “This may have left the attendant with the conclusion that these policies were not important to them and that there was no negative consequence in not following them.”

Management had constant contact with workers on the day shift, but this was limited with graveyard shift attendants, the report says. “Prior knowledge of not securing the store and not applying the payment policies resulted in the attendant routinely being out of the store and permitted him to challenge the fleeing car,” it adds.

SOIL DRAINAGE - from Risk of Alfalfa Winterkill, OMAF Factsheet by S.R. Bowley and H. Wright.

Alfalfa dies out under poor drainage. In wet soils, alfalfa is much more subject to frost heaving during the late winter-early spring. Heaving sometimes breaks the taproot, but more often it forces the crown out of the ground, and exposes it to drying winds, and to mechanical injury during harvest. Diseases will often invade the weakened root and the plant dies during the summer.

Excess surface and soil moisture can lead to the formation of ice sheets. Ice sheeting frequently occurs in low areas in conjunction with mid-winter thawing. Ice sheets contribute to winter injury by smothering plants and by promoting rapid cooling of the soil. Since ice is a better conductor of heat than air, ice sheets can lead to rapid soil cooling and low soil temperatures. High levels of soil moisture in the fall may also reduce hardening and predispose alfalfa to winter injury. A fall soil moisture level below 50% of field capacity has been found to be favourable for alfalfa survival.

Good drainage is essential to alfalfa persistence. Tile drainage will usually correct a drainage problem, and many hectares of alfalfa are now grown successfully on land formerly too wet for alfalfa. In very level areas, surface drainage ditches may be required to remove surface water in winter when soil is frozen. Otherwise, ice formation can smother alfalfa even on tiled land.

Components Of A Soil

Soil is the medium in which crops grow. It provides the water and nutrients for growth. "Soil" includes the topsoil, subsoil and substratum. Topsoil usually contains the highest amount of organic matter which gives it a darker color. The subsoil is usually, but not always, more dense and compact than the topsoil. The substratum is generally the parent material from which the above layers were derived.

The soil consists of three major components: solid particles, and a void space consisting of water and air. Organic matter acts as a soil binding agent and is important in the formation of granules and soil structure.

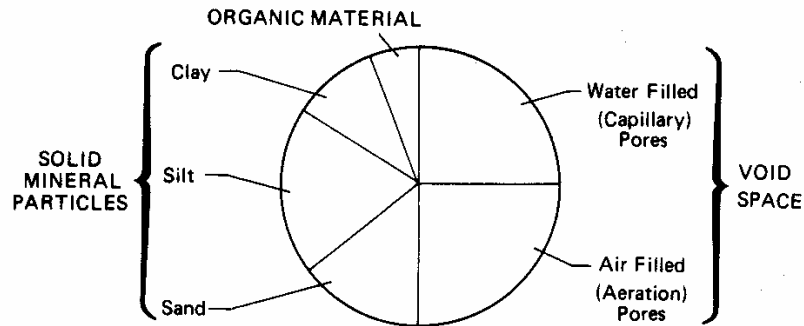


Figure 1. Volumetric components of a loam soil after drainage.

The void space in a loam soil may be completely filled with water resulting in a saturated soil, or it may contain very little water verging on drought-like conditions. A productive loam soil should have about equal volumes of air and water in the void space. The solid mineral material is unaffected by changes in soil water content.

Every soil has a profile: a series of layers from the surface to the parent material. These layers are termed horizons" and are usually designated by the letters A, B, and C. The A horizon is the original topsoil. The thickness of topsoil varies depending on its topographical location and previous erosion history .Soil scientists frequently divide the A horizon into other subclasses (Ah, Ae, Aeg, etc.) which more accurately describe the horizon.

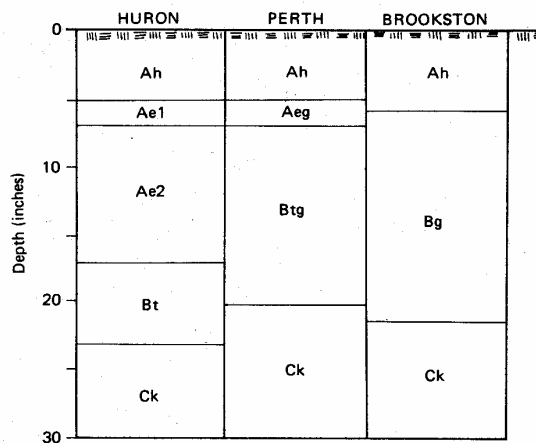


Figure 2. Profiles for three soil series of a catena.

(Cont'd. page 10)

Components Of A Soil — *Cont'd. from Page 9*

The B horizon is a zone of accumulation of fine material and mineral compounds leached down from the topsoil (A horizon). It is commonly called the subsoil. If an accumulation of fine clay in the B horizon results in a textural difference (clay pan) between the A and C horizons, the symbol "Bt" is used. If the drainage is poor, "g" for gley is added to the symbol.

The C horizon is referred to as the parent material and may extend to some indefinite depth. Drainpipe are preferably installed in the B horizon or just into the C horizon of parent material. The C horizon is often undulating.

The basic unit of soil classification as shown on county soil maps is the soil series; these are defined as a group of soils with similar profiles formed from similar parent materials, for example, the series named "Guelph". Boundaries between soil series can be sharp or gradual. The soil type is the textural class of the topsoil and is added to the series name (i.e. Guelph loam).

Natural Soil Drainage Classes

Natural soil drainage classes describe soils which are well drained, imperfectly drained, poorly drained and very poorly drained. These descriptions are derived from a study of the soil profile colors (matrix and mottles) and are the result of the long-term wetness of that soil at that site. Well-drained profiles are readily, but not rapidly, drained by gravity from the soil. Well-drained profiles are not wet for significant periods of time, although they retain near optimum amounts of beneficial soil water for lengthy periods. Imperfectly drained profiles are often the result of a compact soil, high clay content, or a high water table. Water is drained from the soil slowly enough to keep it wet for a significant period, but not all the time. The denser "8t" horizon is recognizable by the mottling above it; yellow or brown mottles, or reddish streaks or blotches are usually found along cracks in the soil. Poorly drained profiles are identified by a deep, dark surface layer that is underlain by a strongly mottled or bluish or grayish horizon. This horizon is called agley and noted as "8g". The gley layer is formed because these soils drain so slowly that the water table is near the surface for a considerable part of the year. These poorly drained soils may also be due to a slowly permeable layer in the profile, or seepage. Frequently, these soils are wet due to the "catch basin" effect of their low location in the landscape where water accumulates. Very poorly drained profiles have water that drains so slowly that the surface remains wet for the greater part of the year. These soils are usually found in depressional areas.

Dilemma

You are driving down the road in your car on a wild, stormy night, when you pass by a bus stop and you see three people waiting for the bus:

1. An old lady who looks as if she is about to die.
2. An old friend who once saved your life.
3. The perfect partner you have been dreaming about.

Which one would you choose to offer a ride to, knowing that there could only be one passenger in your small car? Think before you continue reading.

This is a moral/ethical dilemma that was once actually used as part of a job application.

You could pick up the old lady, because she is going to die, and thus you should save her first. Or you could take the old friend because he once saved your life and this would be the perfect chance to pay him back. However, you may never be able to find your perfect mate again.

The candidate who was hired (out of 200 applicants) had no trouble coming up with his answer. He simply answered, "I would give the car keys to my old friend and let him take the lady to the hospital. I would stay behind and wait for the bus with the partner of my dreams." Sometimes, we gain more if we are able to give up our stubborn thought limitations. Never forget to "Think Outside the Box."

The Drain Impact On Water Probed – (Excerpts from Ontario Farmer, May 16, 2006)

It's time to stop asking whether tile drainage contributes to nitrate nitrogen runoff from agricultural soils and start considering how to address the risk, Michelle Harland, a soil conservation technician with the Prairie Farm Rehabilitation Administration, told the Manitoba Tile Drainage Workshop.

Tile drainage is becoming synonymous with potato production in Manitoba.

Gord Unger, Manager of Ideal Pipe Ltd, the province's only supplier of tile drain piping, estimates that between 20,000 and 30,000 acres of the province's land base is currently drained by the subsurface system.

This year, he's anticipating as much as a 40 per cent increase. Most of that land is in potato, irrigated vegetable production. Edible bean growers are considering the investment as well.

Harland said producers need to factor in the increased potential for nutrient leaching when designing their tile drainage systems.

Harland said water samples collected from in field water routinely exceeded 10 ppm (nitrate) allowed in national water quality standards.

Simultaneous monitoring for pesticides found no evidence of a problem. Soil tests to a depth of 12 feet to determine nitrogen leaching below the root zone found excessive levels of nitrogen that not only represented money down the drain, but a potential environmental hazard.

The research showed that early season moisture and late year precipitation are the main factors that lead to nitrate loss in groundwater. "At these times the potential for leaching is at a maximum since water tables rise dramatically and crop uptake of nitrogen is virtually no existent."

"While it is difficult to control the flow of water through the soil, it is possible to manage the amount of nitrate nitrogen available for loss."

Tips to Help You Avoid Manure Spills On Tiled Fields – (Excerpts from Better Farming, June/July, 2006)

Manure spill data for 2004 generally reflect past trends. Nineteen spills were reported, the majority (16) took place in Southwestern Ontario, with a small number of reported fish-kills.

In the 2004 data, seven spills were reported to have made their way to a water body through a tile drain and nine through overland run-off.

Historically, tile drains have provided the pathway for manure spills in over 40 percent of the total of 410 spills reported since 1988.

Following are some guidelines to promote good practices for liquid manure application on tiled fields::

- Check the three-day weather forecast to help avoid wet conditions.
- Develop a spills contingency plan.
- Develop a manure application-monitoring plan.
- Pre-till before application.
- Incorporate manure within 24 hours or inject manure.
- Comply with Nutrient Management Act separation distances.
- Calibrate manure application equipment.
- Mark outlets for ease of monitoring. This should be done before, during and after manure application.
- Monitor and, if discoloured water appears, contain it and reapply to fields.
- Do not spread on saturated or frozen ground.
- Keep application records.

Little Bits of Wisdom

How long a minute is depends on what side of the bathroom door you're on.

Living on Earth is expensive, but it does include a free trip around the sun every year.

Ever notice that the people who are late are often much jollier than the people who have to wait for them?

Some mistakes are too much fun to only make once.

We could learn a lot from crayons. Some are sharp, some are pretty, some are dull, some have weird names, and all are different colours....but they all exist very nicely in the same box.

A truly happy person is one who can enjoy the scenery on a detour.

Why There Is Concern About Clean Water - (Excerpts from Ontario Farmer, June 13, 2006)

Concern is spreading among farmers as more learn about the implications of Clean Water legislation now under debate in the Ontario legislature.

The nub of the concern is that low-level officials will gain draconian powers over farmers who will face huge costs without compensation.

Toby Barrett said the proposals will place "an extreme financial burden on municipalities" and "potentially creates a tangled mess of red tape for landowners and municipalities".

"It gives bureaucrats virtually uninhibited power to interfere in private dwellings without sufficient court oversight."

He also said there should be far more consultations than the four days set aside by the committee dealings with legislation.

Hardman said the legislation will give municipal-level officials the power to order farmers to idle land, losing property value and cropping income.

"Good management would cover off the need in most circumstances," said Hardeman. He also complained at length that the rules and regulations may not be based on science.

"We should do all we can to protect all our water," Hardeman said, but the public needs to know how that will be financed and needs to have science as a basis for knowing what should be done and the most effective way to do it.

There are several key points the farm organizations are pressing:

- There should be compensation in all situations where farmers are required to do anything that goes beyond normal farming practices.
- There should be opportunities for full consultation.
- There should be an avenue to challenge orders from municipal officials.
- The clean water legislation, regulations and programs ought to dovetail with other initiatives, such as Nutrient Management Act and Ontario Water Resources Act.

Farmers Most Reliant on Groundwater – (Excerpts from Ontario Farmer, June 20, 2006)

A paper entitled, “Groundwater – A North American Resource” was authored by consultant Joanna Kidd and was presented at the Munk Centre for International Studies at the University of Toronto.

Eighty-nine per cent of Canadian farms depend on groundwater for consumption and irrigation.

And while nitrates can be found in all groundwater underlying agricultural land, concentrations are still within federally accepted safe levels and those concentrations “have not changed in 50 years”.

At the same time, “well water samples from Ontario show that the incidence of bacteria has almost doubled over the same period.” A 1992 study, “found 34 per cent of wells had more than acceptable number of coliform bacteria.”

Wells in agriculture areas had traces of pesticides, such as atrazine, dicamba and 24-D, “but nearly always at concentrations below the guidelines.”

“The need for appropriate water pricing...has not been widely embraced,” says the paper. “Governments have not embraced demand management tools – such as full-cost pricing for water.”

Canada has nine per cent of the world’s accessible, fresh water, more than the U.S. total.

Canada withdraws two per cent of its groundwater in a year, while the U.S. withdraws 23 per cent and Mexico 34 per cent.

Only 27 per cent of Canadians use groundwater for domestic use as compared to 50 per cent of Americans and 66 per cent of Mexicans. Within Canada the percentage of use ranges from 20 per cent in Quebec to 100 per cent groundwater use in PEI.

The use of groundwater in Canada is 43 per cent residential, 14 per cent industrial and 43 per cent agriculture. In the U.S. the breakdown is 23 per cent residential, 6 per cent industrial and 71 per cent agriculture.

“The extent of contamination of groundwater at present suggests that more effort needs to be spent controlling point source and non-point source pollution, particularly from farms,” the paper concludes.

Editor’s Note: This is an example of the reports MOE will be using to support their view of the proposed Clean Water Act. The important fact that is left out is that the Clean Water Act as proposed is designed to protect the quality and quantity of groundwater for the benefit of society at the expense of rural landowners. If this inequity was eliminated, the Act would be more palatable.

Finding the Balance – (Excerpts from Ontario Farmer, July 4, 2006)

The South Nation Conservation Authority has signed an agreement with the Ontario Landowner’s Association relative to implementation of the Clean Water Act. Both parties agree that:

1. The freedom to use, enjoy, and earn a living from private property, “cannot be infringed upon, or abridged, for the public good or for the environment without full, fair and timely compensation,”
2. South Nation, staff will contact landowners to request access. If no permission is granted, South Nation staff will leave the property, unless an emergency exists or a warrant is obtained.
3. Conflicts between Landowners and south Nation will be attempted to be resolved between the leadership of the two groups, “prior to other avenues being used.”

Ross Irwin Inducted into the Ontario Agricultural Hall of Fame – John Johnston

On June 11, 2006 several members of LICO attended the Ontario Agricultural Hall of Fame induction ceremony for Ross Irwin. It was a great day for the event and all who attended had a grand time of fellowship with Ross and a distinguished host of "Hall of Famers" and agricultural industry leaders. After the ceremony some of the LICO representatives gathered with Ross and his wife Doreen for the group photo included in the newsletter. My apologies to those who I did not find to include in the photo. Ross was very appreciative of the days proceedings and has extended his gratitude to the LICO membership for their support of his nomination and for the delegation who came to witness the event.

LICO attendees at the event included John and Joan Johnston, Steve and Gail Cronsberry, Dave Inglis, Robert and Margaret Robinson, Jim and Karen Tait, Bruce Laidlaw, Don and Sally Laidlaw, Ralph and Shirley Clayton, and John and Mary Wolfe.

Family attendees included Ross and Doreen Irwin, Lorne Irwin, Irwin and Alma Brown, Carol Anne Pinkney, Trevor Pinkney, John and Joan Irwin, and Christine Irwin.



Standing, left to right: Steve Cronsberry, David Inglis, Jim Tait, Ross Irwin, John Johnston, Don Laidlaw, Shirley Clayton, Bruce Laidlaw, Ralph Clayton

Seated, left to right: Gail Cronsberry, Karen Tait, Doreen Irwin, Joan Johnston, Sally Laidlaw

Pros and Cons of Tile Drainage – (Excerpts from Better Farming, June/July, 2006)

To assess the value or disadvantages of tile drainage, we need to look at what tile drainage actually does.

Tile drainage fulfils two main roles. It removes excess water from soils saturated by snowmelt in the spring and it removes excess water from heavy rains during the summer and fall. It does this by providing an outlet for water that is contained in the large pores in the soil. This is water that could move downwards by gravity, but is prevented from doing so by the slow permeability of deeper soil layers, or a high water table.

By giving this “free water” a place to go, it allows the large pores to fill with air instead of water. The small pores will still remain water-filled, since there is enough attraction between the water and the soil particles to hold the water against gravity’s pull. This is the water that is available for plant growth. Reducing the volume of saturated soil increases the size of the rooting zone, and the amount of available water is increased.

Critics of tile drains point to the increased rate of drainage, and conclude that tile drains must be the cause of higher flood crests in the spring. This conclusion ignores the time required for tile drains to empty out the reservoir of free water in the soil.

By increasing the volume of unsaturated soil, tile drainage encourages more infiltration of rainwater and thereby decreases the amount of surface runoff. The water that does leave the field through the tile will be spread over a few days, rather than a few hours.

It is true that tile drainage modifies the balance between surface runoff and deep drainage, but the impact on the amount of groundwater recharge is much less than you might expect. Most tile drains are placed where the drainage through the soil profile to replenish groundwater is flowing upwards towards the surface, rather than downwards to feed aquifers.

There is clear evidence that tile drains can form a conduit for liquid manure or biosolids from a field directly to surface water. This happens when there are large cracks or pores to carry the material to the tiles, and the material is applied at a high enough rate to push some of it down through the soil profile to the tiles.

These risk factors can be managed by avoiding application when tiles are running, keeping application rates low and pre-tilling the soil to break up the continuous micropores.

Tile drainage offers some environmental advantages.

By encouraging infiltration of rain and meltwater, tile drainage reduces the volume of surface runoff. This, in turn, reduces the amount of soil erosion that can occur.

Wet soils are easily compacted by farm implement traffic. By draining excess water in the spring, tile drainage increases the chance that the soil will be dry enough to carry the equipment without compacting.

The most potent greenhouse gas from agriculture is nitrous oxide, which is produced by denitrification in saturated soils. By increasing the aeration of the soil, tile drainage reduces the amount of nitrous oxide loss to the atmosphere.

Be Careful

Be careful of your thoughts, for your thoughts become your words.

Be careful of your words, for your words become your actions.

Be careful of your actions, for your actions become your habits.

Be careful of your habits, for your habits become your character.

Be careful of your character, for your character becomes your destiny.

CALENDAR OF EVENTS

September 13—15, 2006
16th Annual Composting Council of
Canada Conference
Hamilton Convention Centre
Hamilton, ON

September 19—26, 1006
International Plowing Match & Rural
Expo
Peterborough County, ON

NOTE: 2005 Municipal Directories are still
available.



**PASSING - Frederick Regimond
Halbert of Listowel, formerly of
Markdale at Listowel Memorial
Hospital on Saturday May 27th, 2006 in
his 84th year. A memorial service was
held at the May Funeral Home Markdale,
Thursday June 1, 2006 at 1:30 PM with
visitation 1 hour prior. Interment of
cremated remains in Markdale
Cemetery. Donations to Listowel
Memorial Hospital Foundation or Centre
Grey Health Services Foundation
Markdale would be appreciated.**

"Three Little Pigs"

One day the first grade teacher was reading the story of the Three Little Pigs to her class. She came to the part of the story where the first pig was trying to accumulate the building materials for his home.

She read, "...and so the pig went up to the man with the wheelbarrow full of straw and said, "Pardon me, sir, but may I have some of that straw to build my house?"

The teacher paused then asked the class, "And what do you think that man said?"

After several moments, a little boy raised his hand and said, "I think he said "Holy crap! A talking pig!"

Needless to say .. the teacher was unable to teach for the next 20 minutes.

Observations...

"A free society cherishes non-conformity. It knows that from the non-conformists, from the eccentrics, have come many of the great ideas." Henry Steel Comager

"It's the things in common that make relationships enjoyable, but it is the little differences that make them interesting."

How To Stay Young

1. Throw out nonessential numbers. This includes age, weight and height. Let the doctors worry about them. That is why you pay them.
2. Keep only cheerful friends. The grouches pull you down. (keep this in mind if you are one of those grouches.)
3. Keep learning: Learn more about the computer, crafts, gardening, whatever. Never let the brain get idle. "An idle mind is the devil's workshop." And the devil's name is Alzheimer's!
4. Enjoy the simple things.
5. Laugh often, long and loud. Laugh until you gasp for breath. And if you have a friend who makes you laugh, spend lots and lots of time with HIM/HER.
6. The tears happen: Endure, grieve, and move on. The only person who is with us our entire life is yourself.. LIVE while you are alive.
7. Surround yourself with what you love: Whether it's family, pets, keepsakes, music, plants, hobbies, what ever. Your home is your refuge.
8. Cherish your health: If it is good, preserve it. If it is unstable, improve it. If it is beyond what you can improve, get help.
9. Don't take guilt trips. Take a trip to the mall, even to the next county, to a foreign country, but NOT to where the guilt is.
10. Tell the people you love that you love them - at every opportunity.