

# Salt - more than a food additive

By: Jim Galbraith

People are always on the watch for salt in their diet, and are told not to use too much. This is because salt can be a health hazard when used in excess. The same holds true for the environment.

Salt is critical in maintaining safe roads and sidewalks during the winter season. It is used to prevent buildup of ice and snow and also to melt ice and snow that have settled on the ground. When too much salt is applied on roads and sidewalks, it can lead to excessive runoff into rivers, streams, soils and the water table.

Salt application has been a challenge for Landscape Services staff in the past, and upon looking at previous trends, rates of application have varied over the years. Clearly, there was no standard for how much salt to use.

A chance meeting at a Landscape Trade Show in Toronto with Bob Hodgins of *Smart about Salt* allowed for a frank discussion about the use of salt, which led to the opportunity to have the *Smart About Salt* training program presented to Western's team.

In October 2012, Western's Landscape Services Team, building supervisors and upper management attended a day-long

session regarding the use of salt and application rates.

The session was very informative, and covered topics ranging from environmental concerns about excessive salt use, to the misconception that salt should be used to melt snow, and finally to how little salt is actually required on sidewalks and road ways.

As safety issues are always important at Western, many questions were raised about this. Hodgins stressed that the right amount of salt at the right time and place will ensure a safe surface for drivers and pedestrians.

Following the training session, Marc Vanden Heuvel, Facilities Management's Lead Operator, began a critical step in the process by calibrating all of the University's salt spreading mechanized units, and providing training to all operators about operating procedures and equipment settings.

Training was also provided to caretakers to ensure that they would be able to spread salt at the right rate and also determine if contractors were spreading the correct amount during building entrance snow removal. Training highlighted how much salt is required for a specific area, with practice applications on the shop floor. The next step was to measure two sidewalks that

contractors maintain and then spread the correct amount on the walk. This training system resulted in a 40% reduction in salt use at building entrances.

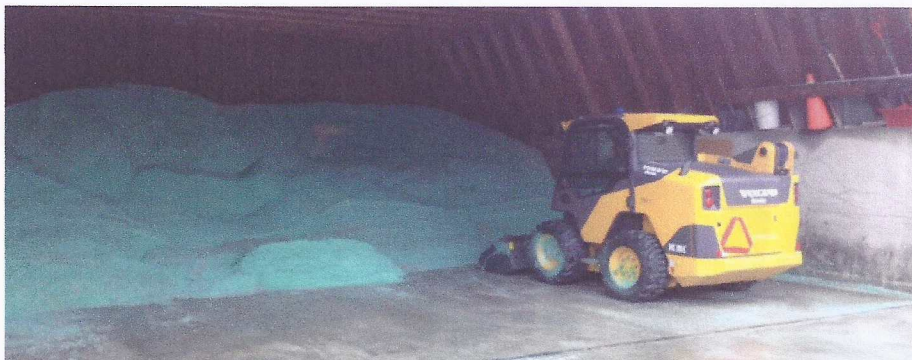
By December 1, 2012, all training had been completed and equipment calibrated. The true test would take place during the first snow storm.

After a number of storms and winter salting events, it has been determined that the amount of salt being used on campus has dropped considerably; we have used about 150 tonnes less salt this year than average. This reduction means that 150 tonnes of salt will not be entering our environment and posing a potential health threat. It also means that Western has generated savings of approximately \$13,000.

Attending the *Smart about Salt* seminar has paid off financially and environmentally. As Landscape staff move forward, they will be working on the final stage of accreditation in the *Smart about Salt* certification process, which will involve documentation of salt use, facilities inspections, and continued training of all employees and contractors.

The final step in the certification process is the introduction of pre-wetting before a snowfall. This liquid application of a salt/water mix prevents initial snowfall from binding to surfaces, which allows for quicker manual removal and fewer subsequent salt applications.

Looking back at the first year of implementing the *Smart about Salt* program, Western staff are proud of their success. The Landscape Services team will continue to provide safe passage for all pedestrians and vehicular traffic on campus, while reducing negative financial and environmental impacts.



Salt storage at Western. Coloured salt allows staff to see where it has been applied, preventing over-distribution.