

Bringing Research to LIFE

In Brief

Deadline Soon

Under new Canadian law, anyone responsible for activities involving human pathogens or toxins must register their facility or laboratory – and the deadline to do so is approaching fast.

The Human Pathogens and Toxins Act received royal assent in June 2009. It is designed to protect the health and safety of the public against the risks posed by human pathogens and toxins, while allowing for science and research progress.

The University of Manitoba must provide basic information to the Public Health Agency of Canada (PHAC) no later than Sept. 21, 2009.

The registration process involves two forms (Form 1 and Form 2) submitted to the PHAC with the required data collected from the university's academic departments and researchers.

The Environmental Health and Safety Office will be completing Form 1 on behalf of the research community. If you use human pathogens or toxins your cooperation is urgently needed.

Form 2 must be completed by each academic department or researcher, with entries from the principal investigators and/or supervisors. **The submission deadline is Aug. 25, 2009.** Please submit forms to the Environmental Health and Safety Office at 191 Frank Kennedy Centre, on the Fort Garry campus.

The registration forms for providing the required information, in addition to instructions on their completion, are available at <http://phac-aspc.gc.ca/ols-bsl/pathogen/guide-eng.php>.

For more background information, log on to <http://www.phac-aspc.gc.ca/ols-bsl/pathogen.register-eng.php> and <http://www.phac-aspc.gc.ca/ols-bsl/pathogen/impl-mise-eng.php>.

Upcoming

Workshop:

SSHRC SRG Strategies for Social Sciences and Humanities Disciplines

With Dr. Rick Linden, Department of Sociology, University of Manitoba and Mr. Brent Deere, Office of Research Services, University of Manitoba

Tuesday, September 15, 2009

9:00 AM - 11:00 AM

210 Helen Glass Centre

To register, please contact Brent Deere @ 474-8390 or brent_deere@umanitoba.ca by Friday, September 4, 2009.

An all-natural fertilizer that's dirt *sheep*

Researchers explore using sheep to provide fertilizer on organic farms

BY KATIE CHALMERS-BROOKS

Ask Heather Wilton about her flock of sheep and she'll have something to say about each of their personalities.

Kit Kat is the laid back one; Oobleck is never satisfied and Hummer is flighty. Silver has a quiet intelligence while Molly is more self-effacing.

"She is so sweet and gentle. She never gets into trouble," Wilton gushes, like a proud mom.

The agricultural and food sciences student – and her baa'ing brood – are involved in new research that has sheep replacing faceless machinery on organic farms.

Besides being a lot more fun (as Wilton points out), using sheep to blend nutrients into the soil instead of gas-powered machinery could save organic farmers money and cause less damage to the environment.

To grow crops, farmers need nitrogen-rich soil. Conventional farmers simply buy nitrogen fertilizer and apply it to their land. But organic farmers must be fertilizer-free so they prepare their soil – about every three years – by growing legume crops like alfalfa and lentils that are good at fixing nitrogen from the air. Organic farmers then use tillage machinery to incorporate the legumes into the ground to provide nutrients for the next crop.

This method, dubbed the green manure concept, means they lose out on a harvesting season for the portion of their land where they're preparing the soil.

An alternative now being studied at the University of Manitoba's research station in Carman, Man., has sheep eating up a legume crop and leaving behind their nitrogen-rich manure, which nourishes the soil and doesn't involve any unnatural emissions.

Not only would sheep be helping out with the harvesting process but they themselves would be harvested, and in turn provide farmers with additional income, says research technician Joanne Thiessen Martens. Farmers could sell sheep or lambs for meat or wool.

This option might be all the more



Photo by Katie Chalmers-Brooks

Research technician Joanne Thiessen Martens and her colleagues began grazing sheep last month at the Ian N. Morrison Research Farm in Carman, Man.

appealing given current economic tough times. In November 2008, American market researcher The Hartman Group noted 43 per cent of consumers surveyed had stopped buying organic products or at least scaled back to save money.

"There is some interest among farmers in gaining some value from these legume green manure crops without sacrificing the nitrogen benefit," Thiessen Martens says.



Photo by Katie Chalmers-Brooks

The flock eats their way through approximately 18 square metres of legumes within 24 hours.

This system also has some added perks: there's less soil erosion since no tillage is used and sheep like eating those pesky weeds that threaten crops. Some cities in North America – including Fort Saskatchewan, Alta., and Missoula, Mont. – are even using dandelion-craving sheep within city limits to keep their green spaces pretty.

Little if any research has been done on using grazing as a green manure management alternative, says Thiessen Martens. For this three-year research project, they'll compare the yield of wheat grown on a sheep-grazed plot versus a tilled plot, and look closely at the nutrient content. They plan on doing an economic analysis as well.

She says this system, which at this point is "very rare," might even persuade conventional farmers to go green. Manitoba is home to about 300 organic farmers.

"One of the criticisms of the green manure concept for conventional farmers is that it's more expensive than just buying fertilizer and putting it on because you don't have that harvestable crop. But if we can offer a system where there is some animal product to be harvested, then it is a practice that may become economically viable for conventional farmers as well."

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