



ALBERTA INNOVATES

Research and Innovation Project – Knowledge Transfer Summary

Project Title:	Method Development to Apply Potash to Irrigation Pipelines for the Control of Invasive Mussels
Project No:	2329
Project Lead:	Ivan Friesen, Eastern Irrigation District
Partners:	Alberta Innovates, Alberta Agriculture and Forestry, Other irrigation districts
Status:	Ongoing

Project Summary:

The objective of this project is to develop a chemical treatment option to protect Alberta's irrigation infrastructure against invasive mussels. Though not present in Alberta, invasive zebra and quagga mussels are a threat to the irrigation industry because of their ability to settle and accumulate, or bio-foul irrigation pipeline infrastructure. Irrigation in Alberta is supported by 13 irrigation districts, and includes more than 50 reservoirs, 3800 km of canals, and 4200 km of pipelines, valued at \$3.6 billion. The irrigation industry is challenged with effectively responding to an invasive mussel infestation because no viable control options currently exist. Potash (KCl), has been shown to be effective in killing mussels in open bodies of water. Potash is readily available and it is relatively safe for humans, food production, soils, and the aquatic environment. Hence, potash is potentially practical for application on a large scale, such as Alberta's irrigation infrastructure.

Specifically, this project will design the methodology to prepare and inject a potash solution into Alberta's irrigation pipelines to kill invasive mussels. It is anticipated that the approach that is developed will be used by the irrigation industry and the Government of Alberta in the event that invasive mussels are discovered in Alberta.

Outcomes:

None available.

Links:

[http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/)

Alberta Innovates Contact:

Rick Nelson

richard.nelson@albertainnovates.ca