

A STUDY ON THE EFFICIENCY OF WATER SPRINKLING IN THE TRUCK AFTER LOADING AND PRIOR TO UNLOADING AT TWO DIFFERENT ENVIRONMENTAL TEMPERATURES ON CORE BODY TEMPERATURE AND CARCASS AND MEAT QUALITY IN PIGS

PROJECT LEADER

Luigi Faucitano, Dairy and Swine Research and Development Centre – Agriculture and Agri-Food Canada (AAFC)

PROJECT OBJECTIVE

This project aimed to provide the pork industry with a clear procedure to be employed on the truck in warm conditions, with the intention of limiting animal losses during transportation and improving pork quality.

As its recommendations are now included in the training handbook of the Canadian Livestock Transport Certification Program, this project is believed to have a definite impact on transport practices, pig welfare and meat quality.

FINAL RESULTS

Water sprinkling in stationary trailers after loading (on-farm) and just prior to unloading at the slaughterhouse was effective in reducing stress associated with transport, and subsequently improving carcass meat quality of pigs located in critical compartments when outside air temperatures exceed 20 °C. In addition, no detrimental effects on unloading procedures (e.g. slipping) were observed. Results were obtained by measuring blood lactate levels at slaughter, pH one hour after slaughter and drip loss 24 hours after bleeding in the loin muscle.

During summer, the temperature inside a stationary pot-belly trailer can be hotter than the ambient outside temperature by up to 6 °C, especially in the lower compartments and those on the front of the middle deck. When outside air temperatures exceed 20 °C, it is beneficial to cool pigs through sprinkling, reducing body temperature and improving the pig's well-being.



Additional Project Information

Click on the link(s) below for further information on this project:

- Swine Innovation Porc Newsletter
[May 2013: Effectiveness of Sprinkling During Transport](#)
- Farmscape Interview
[March 2013: Research Shows Water Sprinklers in Trucks Reduce Heat stress and Improve Meat Quality](#)

Financial Support for this Project

This project is part of the [Swine Cluster 1 \(2010-2013\)](#) research program, made possible through financial support from Agriculture and Agri-Food Canada and a number of other industry and governmental partners. Click here to learn more about the [financial partners](#) for Swine Cluster 1.