Research Identifies Effective Technology for Regulating Swine Temperature in Transit

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CANADA - Research conducted on behalf of Swine Innovation Porc indicates the use of a supplemental fan bank ventilation system when swine transport vehicles are sitting stationary, enhances the effectiveness of water sprinkling in regulating the body temperature of the pigs, writes Bruce Cochrane.

As part research being conducted on behalf of Swine Innovation Porc, scientists are evaluating the effect of vibration during transport on swine behavior and the effectiveness of micro climate control in improving pig comfort when swine transports are sitting stationary.

Dr Luigi Faucitano, a meat scientist with the Dairy and Swine Research and Development Centre of Agriculture and Agri-Food Canada, says, one objective is to determine the effectiveness of a supplemental fan bank ventilation system placed outside the stationary truck on the farm after loading or at the plant before unloading, in response to a previous study which assessed water sprinkling to cool pigs.

Dr Luigi Faucitano-Agriculture and Agri-Food Canada:

The results of the study showed that water sprinkling was very efficient in cooling off the pigs but also that, as we were sprinkling water inside the truck, there was an increase in relative humidity inside the truck which, compared to temperature, can be even more dangerous for the pig welfare, pig comfort in the truck.

The solution to remove this excessive humidity in the truck is to ventilate the truck in order to cool off the pigs and remove the humidity at the same time.

We wanted to test this new equipment, which was installed at the slaughter plant in Ontario, completely new and redesigned for our needs.

We found that the system was very efficient.

Pigs which were cooled off with this cooling system had lower body temperature and, at a decreasing body temperature, they were less dehydrated at the slaughter point.

Dr Faucitano says other measures of pig comfort and welfare are still being analyzed.

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