Understanding the impacts of transportation on dairy calf welfare

Early findings indicate negative effects from long transit times

By Caitlin Ford

University of Guelph researchers expect that their new study will help improve calf welfare by determining the effects of long-distance transportation.

Dr. David Renaud, a professor in Population Medicine at Ontario Veterinary College, and PhD student Hanne Goetz are investigating the effects on young calf welfare of transportation from dairy farms to veal facilities.

"Approximately 450,000 calves are transported annually in Canada," said Renaud. "This research can help us understand the challenges that these calves go through and mitigate some of these effects on their health and growth."

The Canadian Food Inspection Agency recently introduced regulations requiring a time restraint on calf transport. As of 2022, the CFIA will require transporters to incorporate a rest stop for calves after 12 hours on the road.

“We wanted to investigate the effects of transport time on calf well-being because there is not a lot of recent data evaluating the impact of transportation in the Canadian climate,” said Goetz.

Starting in October 2020, the researchers visited dairy farms in southwestern Ontario. For two weeks before calf transport to a veal-producing facility, the team conducted daily health exams and collected weight measurements and blood samples from the animals.

On transport day, the calves were randomly assigned to six, 12 or 16 hours of transportation. At the destination, researchers again weighed the calves, collected blood samples, and conducted daily health exams for 14 days after transportation.

Preliminary findings indicate calves that were transported for 16 hours had higher incidence of diarrhea. Researchers also found that transportation season affected the calves’ respiratory health, with more frequent abnormal scores in winter.

While these findings require further analysis, they highlight the risks of lengthy transportation times, said Renaud.

“Based on these early findings, getting calves to their destination earlier is critical. From what we have seen, looking at strategies to shorten transportation time could benefit the welfare of the calf.”

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