

# **Leaching Losses Of Nitrogen From Stockpiled Dairy Manure. (S06-hansen110618-Oral)**

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## **Abstract:**

Winter-feeding is a challenge for grazing based livestock systems. Low input dairy system may use outdoor winter-feeding in lots that provide protection from weather and a straw bedded pack is used to keep cows dry. The water quality risk associated with outdoor winter-feeding of dairy cows is not well known. The objective of this paper is to evaluate potential risks of leaching of nitrogen from stockpiled manure obtained during outdoor wintering of dairy cows. Soil nitrate and ammonium concentration in the wintering lot was determined with grid soil core sampling and used as an evidence of leaching from the manure. Manure from the straw bedded pack was stockpiled in the spring in lot and left to compost. Leachate from the piled manure was sampled weekly using passive samplers at the soil surface and analyzed for nitrate and ammonium concentration. The data were extrapolated to determine potential for nitrogen discharge to the local watershed.

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