

# Benchmarking Early Postpartum Disorders in Alberta Dairy Herds.

M.G. Colazo<sup>1</sup>, M. Gobikrushanth<sup>2</sup>, A. Behrouzi<sup>1</sup>, I. López Helguera<sup>3</sup> and B. Hoff<sup>4</sup>

<sup>1</sup>Livestock Research Section, Alberta Agriculture and Forestry, Edmonton, AB; <sup>2</sup>Department of Agricultural Food and Nutritional Science, University of Alberta, Edmonton, AB; <sup>3</sup>Agrotecnio Center, Animal Production Department, University of Lleida, Spain; <sup>4</sup>Animal Health Laboratory, University of Guelph, ON. E-mail: marcos.colazo@gov.ab.ca

The main objective was to determine the lactational incidence of postpartum disorders (PD) [i.e. retained fetal membranes (RFM), metritis, milk fever (MF), ketosis, displaced abomasum (DA), fatty liver, and mastitis] during 60 days in milk (DIM), and death and culling rate up to 90 DIM in dairy cows. A secondary objective was to investigate risk factors associated to PD and the association between PD and average milk yield by 90 DIM. Farm records (definitions for PD as in Canadian National Health Project) and metabolic profiles (blood sampled once between 2 and 14 DIM) from 11 herds and 1096 cows (328 primiparous), respectively, were analyzed. The overall incidence of PD, death and culling rate was 56, 4 and 5%, respectively. The incidence of RFM, metritis, MF, ketosis, DA, fatty liver, and mastitis was 7, 15, 9, 18, 1, 9, 27%, respectively. Incidence of PD was significantly associated to farm (range, 29-69%) and cows calving twins (88 vs. 55%). Death rate was greater in multiparous cows (5 vs. 3%) and those calving twins (13 vs. 4%). Culling rate was also greater in cows calving twins (17 vs. 5%). Multiparous cows had greater incidences of MF (10 vs. 4%), ketosis (19 vs. 14%), and mastitis (28 vs. 22%) but tended to have lower incidence of metritis (14 vs. 18%) than primiparous cows. Cows that experience PD were 10 and 17 times more likely to be culled or died by 90 DIM than healthy counterparts. Cows with MF or DA were 59 and 50 times more likely to die, and those with KET were 16 times more likely to be culled than healthy cows. Average milk yield by 90 DIM was significantly reduced in cows with PD (overall average -290 kg). When compared to healthy cows, losses of milk yield were from 211 kg in cows with MF to 1169 kg in cows with DA.

**Take Home Message:** The incidence of early postpartum disorders was highly variable among farms. The most common disorder was mastitis, followed by ketosis. Multiparous cows were more likely to experience mastitis, ketosis and MF, whereas primiparous cows were more likely to experience metritis. The cost of postpartum disorders, only based on loss of milk yield by 90 DIM, can range from 169 to 935 CAD.

*This project was financially supported by Growing Forward 2 (a federal-provincial-territorial initiative) and Alberta Agriculture and Forestry. Authors thank the participating dairy producers, veterinarians and Mr. Jeromy Ten Hag (CanWest DHI) for cooperation.*