

Is Predicted Transmitting Ability for Productive life associated to prevalence of early postpartum disorders in Alberta Holstein cows?

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Productive life (PL) is the measure in months for how long a cow is predicted to produce milk compared to her herdmates. Sire predicted transmitting ability (PTA) for PL is available and could be used as a selection criterion. The objective of this study was to investigate the associations among sire PTA for PL and the lactational incidence of postpartum disorders (PD) [i.e. retained fetal membranes (RFM), metritis, milk fever (MF, clinical and subclinical), ketosis (clinical and subclinical), displaced abomasum (DA), fatty liver, and mastitis], and sick, death and culling rate up to 90 d in milk (DIM) in 949 cows from 10 Alberta dairy herds. Postpartum disorders were diagnosed by farm personal and veterinarians as well as using blood nutritional and metabolic profiles. The PTA data were retrieved from DairyComp 305. Incidence of PD ranged from 29 to 69% among dairy herds. The sire PTA for PL ranged from -6.6 to 8.8 and it was not associated to the lactational incidence of MF (clinical or subclinical), ketosis (clinical or subclinical), DA, fatty liver, mastitis, sick and culling rate. However, sire PTA for PL was associated to lactational incidence of RFM ($P=0.1$) and metritis ($P=0.03$), and death rate ($P=0.06$). The incidence of RFM was 3% in daughters from sires with a PTA for PL of 8.8, while it was 12% in daughters from sires with a PTA for PL of -6.6. The incidence of RFM was reduced by 0.6% for every PL point increase. The incidence of metritis was 7% in daughters from sires with a PTA for PL of 8.8, while it was 24% in daughters from sires with a PTA for PL of -6.6. There was a reduction in the incidence of metritis by 1.1% for every PL point increase. The death rate ranged from 1% in daughters from sires with a PTA for PL of 8.8 to 7% in daughters from sires with a PTA for PL of -6.6. For every PL point increase, death rate was reduced by 0.4%

Take Home Message: Although selecting for PL might not be good enough to reduce the incidence of MF, ketosis, fatty liver and mastitis, daughters from sires with high PL are less likely to suffer from RFM, metritis and die in early postpartum. Dairy producers should consider PL to improve profitability and cow's longevity and well being.

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