POSTER 4

Economic Feasibility of Genotyping for Feed Efficiency and Reduced Methane Emissions: Benefits and Barriers to Adoption on Canadian Dairy Farms

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Genomics has emerged as a promising biotechnology for its ability to predict and aid in selection of more productive livestock. More recently, the ability to use genomics to select for increased feed efficiency in dairy cattle has been developed. As feed represents the highest variable cost for Canadian dairy producers the potential benefit from on-farm adoption could be substantial. Furthermore, as methane emissions are highly correlated with feed intake, adoption has the potential to significantly reduce the environmental footprint of Canadian dairy operations. Despite this, little is known about the economic implications and if there are potential barriers to adoption. Using a dynamic multi-year enterprise budgeting model we will estimate the benefits from adoption and identify potential barriers. Preliminary results indicate an increase in NPV of roughly $140,000 over twenty-five years from an 8.4% reduction in feed intake due to genomic technology adoption.