INTRODUCTION
Methionine is a sulfur-containing amino acid (AA), described as one of the most important limiting AA for dairy cattle, particularly at early stages of lactation and in herds using corn silage and alfalfa-based diets. Methionine is required for synthesis of phosphatidylcholine and therefore seems to play a direct role in VLDL production in bovines, which in turn will affect fat transport from the liver and overall hepatic metabolism. Thus, it is possible that Methionine supplementation will improve overall metabolism & health postpartum, increase milk production & components.

OBJECTIVES
To measure effects of supplementing methionine in the postpartum period of dairy cows on:
- Dry matter intake
- Lactation performance
- Milk composition
- NEFA, BHBA

MATERIALS AND METHODS

- Holstein cows (n=72)
- Dry period: Housed in a single pen and fed same basal diet
- From calving to 70DIM = individual tie-stalls and milked twice daily
- At calving, cows were blocked by parity and calving date and randomly assigned to two treatments differing in level of dietary methionine:
- MET: formulated to deliver 2875g MP with 6.8 Lys %MP and 2.43 Met %MP
- CON: formulated to deliver 2975g MP with 6.8 Lys %MP and 1.89 Met %MP

Diet composition:
- Ingredient MET CON
  - Corn silage 39.7 39.7
  - Grass hay 4.6 4.6
  - Roasted soybeans 8.6 8.6
  - Alfalfa silage 21.8 21.8
  - HMSC 17.2 17.2
  - Mineral-vitamin mix 2.7 2.7

RESULTS

CONCLUSIONS
Methionine supplementation increased milk protein and SNF% in milk in early lactation cows
Methionine supplementation seemed to reduce circulating BHBA at 3W pp, without altering NEFA
The tendency for an interaction of MET on Kgs protein-by-production level warrants further studies.