ABSTRACT
This ongoing research (October, 2016 – September, 2018) aims to determine if milking sheep able to breed out of season on the STAR Accelerated Lambing System can achieve equal or higher milk yields year-round in 365 days than possible with one annual 180-day dairy sheep lactation. The Cornell University Dorset, and Dorset Finnsheep flock is managed in three STAR groups (STAR-R, STAR-B, STAR-G) that each are either lactating, in early gestation and dry or in late gestation and dry. The STAR groups undergo consecutive lactations, with each group lambing and lactating 3 times in this 2-year research project. Applying the STAR Accelerated Lambing System to dairy production with lambs taken away after 12 h and ewes being milked for the first time on DIM 1 leads to short and frequent lactations. The ewes in each STAR management group will lactate for 73 to 103 days, with breeding on day 73 of lactation, leading to 219-day lambing intervals. Higher litter sizes of traditional first time on DIM 1 leads to short and frequent lactations. The ewes in each STAR group are divided and receive 3 experimental feeds and weigh gains are measured. The data model included the effect of STAR group, diet (confounded with pen), ewe within diet and STAR group, and does not represent the final result of this research. The data model included the effect of STAR group, diet (confounded with pen), ewe within diet and STAR group, and days in milk as a linear and quadratic covariates for each diet.

RESULTS
The following results are preliminary, encompass the first lactation period of all 3 STAR groups, and do not represent the final result of this research. The data model included the effect of STAR group, diet (confounded with pen), ewe within diet and STAR group, and days in milk as a linear and quadratic covariates for each diet.

CONCLUSIONS
• There was a high amount of variation in milk production among ewes within diets. With sound breeding decisions this variation may be decreased, higher producing ewes selected, and average milk yield increased.
• High achieving ewes milked 246 kg in 115 lactation days, compared to East-Friesian dairy sheep with 359 kg in 189 days. Combined with increased lamb production, this could be a significant advantage.
• With only 1/3 of the flock being milked at any given time of the year, the lambs can be sold for meat towards the end of the growing season, allowing the ewes to be slaughtered at a younger age, increasing the farm income.
• The results of this study in September 2018, the data will be used to improve a comprehensive economic model. It will be designed to be used by farmers to predict milk yields, lamb crop, feed cost and farm income.