Name(s)	Project Number
Kylie M. Konyn	**36454**

Project Title

How Now Black and White Cow

Abstract

Objectives/Goals
The objective of this study was to see if age affects the conception rate in bovine.

Methods/Materials
Dairy Herd Improvement Association records (computerized recording system), Pens, Pencils, Paper, Artificial Insemination Gun, Holstein Semen, Gloves, and 727 head of bovine including heifers and cows. I bred the animals and recorded the breeding in DHIA records system. I had our dairy vet confirm pregnancies and recorded them in DHIA. I compared records and recorded and analyzed my results.

Results
My findings were that heifers had a 97.16% conception rate, 1st lactation cows had a 59.9% conception rate, 2nd lactation cows had a 52.05% conception rate, and 3rd and older lactation cows had a 53.76% conception rate.

Conclusions/Discussion
I hypothesized that heifers would have a higher conception rate than first lactation and older cows. I am proud to say that according to my experiment my hypothesis was correct. I found that heifers had almost double the conception rate when compared to cows. I was not surprised that the heifers had a higher conception rate than the lactating cows because being younger means they have more viable eggs. I had not anticipated however that the lactating cows would have such a low conception rate. I expected that the cows would have a conception rate lower but closer to the conception rate of the heifers. One reason for this could be that the cows were lactating during breeding meaning their normal hormone cycle may be altered in some way. I feel that the number of bovine used in my experiment allowed my results to be more valid along with the random selection of subjects.

Summary Statement

The purpose of this learning experience was to increase my knowledge of bovine anatomy and reproduction.

Help Received

I would like to thank my parents for their love and support and assistance with breeding all of the cows. Dr Joe Ferguson, for his assistance with confirming all of the pregnancies. Diego Vallejo for giving me a presentation on artificial insemination (AI).