

# **A study on the length of a dry period necessary to maximize milk production of two consecutive lactations.**

**Flávio Marcos Dias**

## **Resumo**

This study was undertaken to make recommendations on the length of a dry period necessary to maximize daily milk yield over two consecutive lactations depending on variables age at calving for the preceding lactation, calving interval between parturitions initiating each lactation for the pair, and daily milk on 100th day before following calving. This kind of information is really very important to dairymen since it can help them in determining how they should manage their herds for maximum efficient production.

The study involved records from 8981 Holstein cows located in 71 different Counties in the State of Ohio. Such records were started during the period 1975 - 77.

On the basis of lactation order, data were divided into four groups, each group representing one pair of consecutive lactations.

Four statistical models were established in order to find out the relative effect of days dry on daily yield; show the relationships between the different variables; determine the influence of age at calving, calving interval, and daily yield 100 days before calving on relationships of milk yield and days dry; and make recommendations on the number of days dry necessary to maximize daily yield over two consecutive lactations.

Ranges in the variations ratios of interrelated variables age at calving, calving interval, and total milk of preceding 305-day lactation to days dry for different daily yield measures were found to be 0 to 6, 0 to 21, and 2 to 186, respectively. The variation attributed to days dry was larger than that due to calving interval for those measures of daily yield holding only following lactation.

The results from this study show that there is a general tendency for the optimal dry period length to be affected much more by calving interval among mature cows than among younger cows. It was found that cows calving at longer intervals should be given a shorter dry period.

Although some more rest seems to be needed by the high producers, it appears that calving interval affects optimal days dry more than the level of daily yield 100 days before calving. It was also found that fewer days dry are recommended as cows mature.