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**EVALUATION FERTILITY RATE OF PRESYNCHRONIZATION- O SYNC METHOD  
WITH THREE DIFFERENT TIME INTERVAL IN DAIRY COWS**

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**ABSTRACT**

It is still possible to maintain good reproductive performance in dairy herds without estrus synchronization, but it requires a sound heat detection program. Unfortunately, maintaining an efficient heat detection program and quality heat detection personnel can be a never-ending challenge in today's expanding herds. In this study, we visit several industrial dairies located in the Mianeh city and from oestrus and reached to insemination age heifers (Weight: up 350 kg, Height: 135 cm and age: up to 18 month) without any clinical problem, reproductive and obstetric two categories were selected randomly. To avoid of any risk or in other words to lowering the margin of error, the information about nutrition and signs of oestrus were to farmer. The fertility rate in cows treated by statistical methods, Fisher's exact test was used for statistical analysis. Achieve by the results in the group of cows with short pre synchronization O- synch 24 cows were fertilized with this method and 76 cows weren't fertile that the fertility rate was 24%. In the group of cows with pre synchronization O- synch for 11 days, 38 cows were fertilized with this method and 62 cows weren't fertile that the fertility rate was 38% and in the group of cows with pre synchronization O- synch for 14 days, 34 cows were fertilized with this method and 66 cows weren't fertile that the fertility rate was 34%.

**Keywords: Presynchronization, O sync, Dairy Cows**

**INTRODUCTION**

It is still possible to maintain good without estrus synchronization, but it requires reproductive performance in dairy herds a sound heat detection program [1].

Unfortunately, maintaining an efficient heat detection program and quality heat detection personnel can be a never-ending challenge in today's expanding herds [2]. As the accuracy and efficiency of estrous detection declines, the value of incorporating estrus synchronization into the reproductive management program increases proportionately. By grouping cows that calve within a one- or two-week window, programmed breeding allows producers to systematically synchronize and A.I. cows for maximum pregnancy rates with minimal labor inputs. Although it's easy to get confused by the variety of systems available, this variety provides extraordinary flexibility in developing tailor made reproductive management programs. The aim of this study was Evaluation fertility rate of Presynchronization- O sync method with three different time interval in dairy cows.

#### **MATERIALS AND METHODS**

In this study, we visit several industrial dairies and from oestrus and reached to insemination age heifers (Weight: up 350 kg, Height: 135 cm and age: up to 18 month) without any clinical problem, reproductive and obstetric two categories were selected randomly. To avoid of any risk or in other words to lowering the margin of error, the

information about nutrition and signs of oestrus were to farmer.

We prepare a list that contain number of cows, date of insemination, name of farmer, sperm number and other information was setting delivered to farmer and copy of it was stored in archive studies.

In this study we used Vetalyse made Aburiehan Co. for pre synchronization. The study was conducted at 3 dairy around Tabriz. 300 cows on the farms where they were over a period of 55 days from delivery with active ovaries and reproductive and general examination were selected without any problem. These cows were randomly divided into 3 groups of 100 head. Cows in the first group received two doses 14 days apart PGF2 $\alpha$  and 7 days after the cows are treated with O-synch. Cows in the second group received two doses of PGF2 $\alpha$  14 days apart and 11 days after the cows are treated with O-synch. Cows in the third group received two doses of PGF2 $\alpha$  14 days apart and 14 days after the cows are treated with O-synch. 0 to 35 days after inoculation, all 3 groups of cows in late gestation were examined by ultrasound. At the end of fertility rates were reported from all 3 groups.

#### **RESULTS**

Achieve by the results in the group of cows with short pre synchronization O-ynch 24

cows were fertilized with this method and 76 cows weren't fertile that the fertility rate was 24% (**Chart 1**).

Achieve by the results in the group of cows with pre synchronization O- synch for 11 days, 38 cows were fertilized with this method and 62 cows weren't fertile that the fertility rate was 38% (**chart2**).

Achieve by the results in the group of cows with pre synchronization O- synch for 14 days, 34 cows were fertilized with this method and 66 cows weren't fertile that the fertility rate was 34% (**Chart 3**).

Compare fertility rates in group one than in group two showed that there are significant differences between the two groups (P= 0.0464). Also compare fertility rates in Group one than in Group three shows that there aren't significant differences between the two groups (P= 0.1605) and Compare fertility rates in group two than in group three showed that there aren't significant differences between the two groups (P= 0.6587).

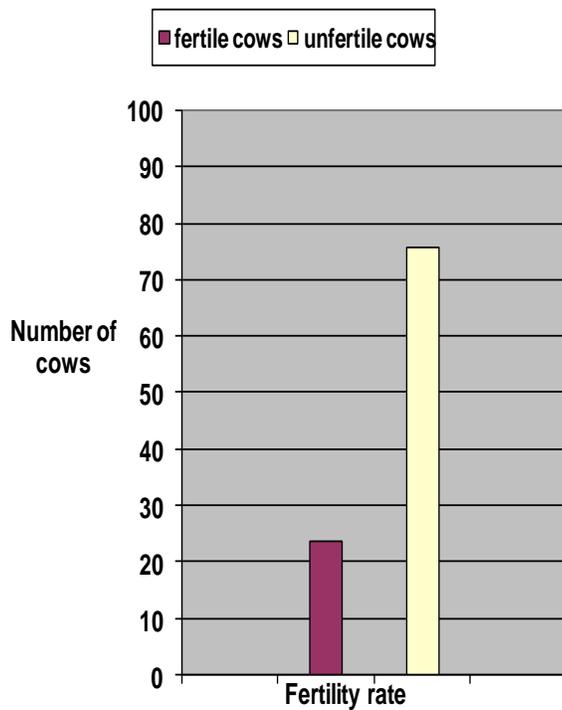


Chart 1: Group of cows with short pre synchronization O- synch

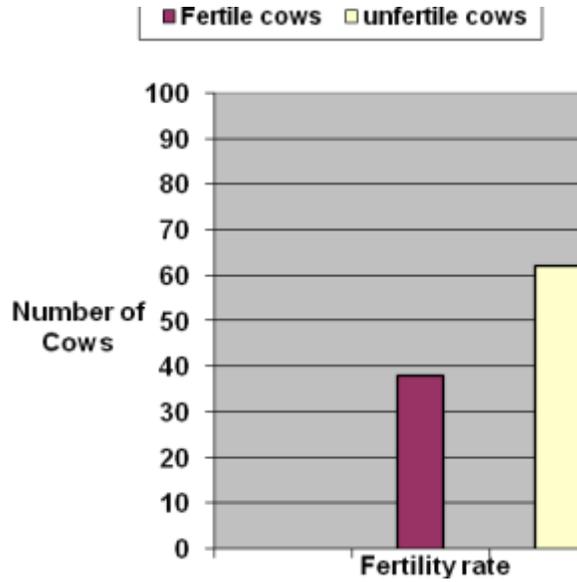


Chart 2: of cows with pre synchronization O- synch for 11 days

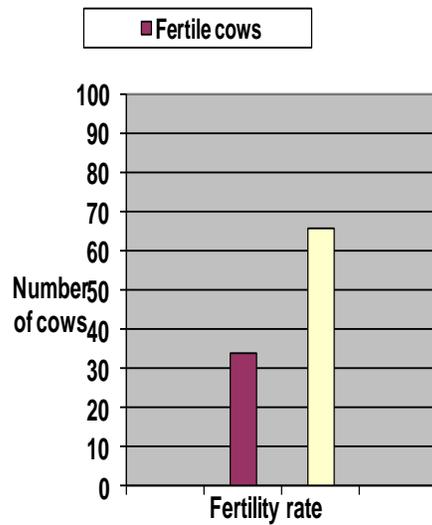


Chart 3: group of cows with pre synchronization O- synch for 14 days.

**DISCUSSION**

By comparing the results of the 3 groups can be seen that the difference in fertility rates between the three methods of pre synchronization O- synch filling up to 38% and at least 24% different. Given that most of the factors affecting reproduction, such as

nutrition, weather conditions, milk production, milking frequency and the bulk of the almost same attitude as expected, significant and non-significant results were observed between the groups The greatest difference between the first and second

groups together and the least difference between the second and third groups.

The overall results showed that the method pre synchronization 7 days is not desirable and the fertility rate in this group was significantly lower than method with pre synchronization O- synch for 11 days. Administration of prostaglandin PGF<sub>2</sub> $\alpha$  is an effective treatment for inflammation of the uterus and ovarian cysts. Although pre- synch it may increase uterine health or the number of estrous cycles before inoculation of the targeted increase, this is impossible these effects cause large differences in pregnancy rates were observed in the present study. Take on the results recorded in this study indicate fertility provisions which, as expected, resulted in a dramatic increase in the fertility rate of inoculation of the targeted group is in favor [3 and 4].

In one study the results showed that the reduction in intervals of 4 days to 11 days to increase fertility in dairy cows [5]. In another study fertility rate of 10-day intervals between the usual 12 days compared pre synchronization and o- synch. The results showed that there was no significant difference between the two methods [6].

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