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A CASE STUDY TO COMPARE THE COSTS AND RETURNS OF BOTH NORMAL ARTIFICIAL INSEMINATION AND SEXED ARTIFICIAL INSEMINATION IN COWS

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ABSTRACT

Achieving food security is one of the main objectives of the national strategy to promote national production. The Egyptian food basket suffers from a lack of protein content. Animal production is an integral part of agricultural and national activity as a whole. The average value of Egypt's production of red meat (livestock and slaughtered animals) during the period (2000-2015) was estimated at about 24.7 billion Egyptian pounds, representing about 38.9% the value of animal production of about 63.4 billion Egyptian pounds on average, Of the value of agricultural production of about LE 179.4 billion for the same period.

In the light of the results of the case study carried out in the Dina farms in 2015, it can be said that if this method is circulated using the seminal fluid at the level of the Republic 2015 for female cattle in the age group more than two years at the level of the Republic in 2015 it is expected that the number of males about 43,450 thousand head and number Females were 266,9 thousand, 13.9% and 86.1% respectively. The net realized revenues were estimated at LE 129 million for male production, while the net return on females was LE 7.87 billion, which resulted in increased female production of meat and milk, for livestock breeders in Egypt and then increase Agricultural, livestock and national agricultural income as a whole. While in the case of 2015, at the level of the Republic of the same number of cattle in the age group more than two years (at the age of the first vaccination) in the case of artificial insemination and the application of the costs and revenues of the output obtained, it is clear that the net expected return of male production in this year is about 517 million pounds While the net return on female output was LE 5.12 billion, which showed that there was a significant difference between the percentage of profits obtained. The higher the number of female herds through artificial insemination and the consequent increase in female output and the increase in meat and dairy production.

Thus, the application of the method of natural vaccination of livestock in Egypt on all females expected for 2020, which is about 603.72 thousand head, the rate of milk production will be about 9100 kg per head during the production season, noting that the average milk production for the head a day about 35 kg and the number The dairy production season is about 260 days average depending on the state of the animal and the environmental and climatic conditions and the method of nutrition and care. Thus, it is expected that the total value of milk production for livestock is about 27.5 billion pounds in 2020, indicating that the increase in milk production in this way than the following method of vaccination The average value of dairy production in this case was estimated at 17.4 billion pounds for the year 2020, an increase of about 10.1 billion pounds by about 63.3%. This is in favor of the method of artificial insemination, resulting in great economic returns for individual farms, commercial farms and the national level as a whole.

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In the case of artificial insemination, the number of females in 2020 was estimated at 381.6 thousand. The difference is in favor of artificial insemination, with an increase of about 222.1 thousand females. In the case of artificial insemination, the number of males increases by 304,641 thousand head. And fattening of calves due to inheritance of genetic factors affecting the rate of food conversion.

Since the average live weight of a live animal at slaughter is about 400 kg for females, about 450 kg for males, it is expected that the amount of meat for females in the case of artificial insemination is about 249.1 million kg in 2020 while the male meat is about 34.6 million kg. Of males in this way, and this is in favor of dairy farms. The expected amount of meat expected for females in the case of IVF is about 152.6 million kg for the year 2020, while the amount of meat from males is about 171.7 million kg. Milk production is noted in this way and is more important for meat farms So as to increase the number of males.

In both cases, there is a clear difference between the profits achieved by these two techniques compared to natural vaccination, where there was a significant difference in the rate of net profit, which proves the effectiveness of artificial insemination in the achievement of self-sufficiency of meat and dairy and the promotion of the livestock sector.