

PREGNANT FEMALES, SLAUGHTERED IN FIVE MUNICIPAL SLAUGHTERHOUSES IN THE PROVINCE OF MANABÍ

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Abstract: The investigation was carried out with the objective of estimating the percentage of pregnant females slaughtered in five slaughterhouses in the Manabí province, and to identify the gestation period in which these cows were found, in addition, some economic, ethical and sanitary considerations were made on the topic addressed.. It was carried out in slaughterhouses in 5 cantons. The number of cows examined was 90. The information was analyzed by descriptive statistics. A classification of the gestation time of the animals was made [1st third, 2nd third and 3rd third]. The results obtained indicated that 75 cows were empty and 15 were in a state of gestation, which correspond to 83.4% and 16.6% respectively. It is concluded that the results are below other authors from Ecuador and other countries, however, It is recognized that there is a serious reproduction problem to be solved. In relation to gestation time, of the 16.6% of pregnant cows, 4.4% were in the first third, 2.2% in the second and 10% in the third. The results show that there is a non-negligible volume of meat produced by unborn calves, whose health status and destination in the Manabí territory are not controlled.

Keywords: Slaughterhouse, cows, pregnant women, economy.

INTRODUCTION

Manabí is the province that dedicates the largest amount of land to agricultural activity in Ecuador, but in relation to livestock production and particularly with bovine production, it does not occupy the place that corresponds to it and is in place number three, (ESPAC, 2012). It is a multifactorial problem and these problems are demanding a solution. Most of the farmers do not know the real state of their herds from the reproductive point of view, nor their efficiency indicators, most do not apply the new feeding or reproduction techniques (Artificial Insemination and

Embryo Transfer)., to solve this problem, the objective and subjective conditions in agricultural activity must be changed. One problem among many is the high percentage of slaughter of pregnant bovine females, which, combined with another factor, which is the inefficiency in the reproductive cycles; also unknown from the quantitative point of view, leaves an alarming situation, especially due to the ignorance of the non-quantified reality of the province. The health status of the cows that are slaughtered is not known, particularly that of diseases such as Brucellosis, Tuberculosis and others, which affect humans because they are globally recognized zoonoses. The vicious circle of poverty, related to livestock, has to do with low productivity, which is the biggest problem, but this low productivity has its roots in: poor distribution and inappropriate use of land, extensive management, relatively little use of labor, generally underpaid, little technological and credit incidence,

GOALS

The objectives of the work are to know and quantify the negative effects from the ethical, sanitary, epizootiological and economic points of view, of the slaughter of pregnant females in the slaughterhouses of Manabí. The situation is not new, it has been addressed on multiple occasions and there are works developed in Ecuador and particularly in Manabí, but no progress is seen in its control, it is necessary to insist and seek solutions, some of which are considered in the (Law of Animal Health of Ecuador, 2004). This is not exclusive to Ecuador, it is also reported in an alarming way in other Latin American countries, such as Panama, Mexico and others. Pregnant cows are slaughtered daily and this implies a decrease in the national herd, due to the number of calves that are not born, fertile females that are lost, decrease in the production of milk and meat, necessary for

human consumption (Sosa et al, 2007). The issue continues to be the object of attention of peoples and governments in different parts of the world (Fernández, 2003). The growing requirements of the modern market include ethical aspects, such as the humane treatment of animals (Sepúlveda et al, 2007).

Many authors reiterate that the loss of females suitable for reproduction, pregnant, that their young and their products are lost when they are sent to the slaughterhouse is unsustainable (Sosa et al. 1987) and (Castañeda and Rodríguez, F.1985), also (Pillajo, H 2019), (González, E. 2020) and (Gaibor, J. 2022) point out the same thing. Some authors present extreme data, going so far as to report 69%. From an economic point of view, in this action, in addition to losing a fertile female, the offspring are lost which, some time later, could become mothers or animals suitable for consumption (Cristhian Rayo and Antonio Yader, 2009). The slaughter of pregnant females is unsustainable, hence the preponderant importance of state intervention to protect bovine bellies, according to the law for the defense of cattle ranchers (Vargas et al. 2007).

In ethical matters, the slaughter of pregnant cows violates the (Ecuador Animal Health Law, 2004), this legislation states that the authorization will be denied and the killing of sick or presumed sick animals, those that are in a state of illness, is strictly prohibited. precarious physique and young females or useful pregnant mothers.

MATERIALS AND METHODS

For the development of the investigation, 2 visits were made to each of the five slaughterhouses; which were coded as slaughterhouses 1, 2, 3, 4 and 5. Materials used:

1. Sanitary clothing.
2. Cover mouth.

3. Wellingtons.
4. Apron or apron.
5. Aseptic dissection equipment, scalpel, scissors and surgical forceps.
6. A photographic camera.
7. slaughtered cows.

After the sacrifice of the cows, the viscera were extracted, the complete genital tract was collected, which was identified and examined using the methods proposed by (McEnteek, 1990), the uterus was removed with the scalpel and scissors, making an incision in each horn, this procedure allows detecting possible pregnancies. The age of the fetuses found was estimated according to (Cole and Cupps, 1959), cited by (Holy, 1967). Subsequently, they were classified into three groups, 1st third, 2nd third and 3rd third of gestation, with the aim of making subsequent assessments of the volume of calves obtained. The scale proposed by Sosa (2007) was used, based on fetal size: up to 17 cm for the 1st third, between 18 and 60 cm for the 2nd third and greater than 60 cm for the 3rd third of gestation. Descriptive statistics were used. With the data obtained, an economic assessment was made.

RESULTS AND DISCUSSION

It was verified that there are no records or control data for diseases of slaughtered cattle, such as: Brucellosis, Tuberculosis or Leptospirosis, due to the absence of diagnostic laboratories and services, nor is the final destination of the fetuses of pregnant cows controlled, particularly those of the 2nd and 3rd third that are the most developed and that sanitarly mean a real and permanent risk to human health.

Of a total of 90 slaughtered cows, 15 of them were pregnant for 17%, these results, compared to the cited authors, are well below the average. Of the total number of pregnant

women, 4 were in the first third of pregnancy for 27%, authors such as L. SANCHEZ, 2014, M. GARCIA, 2014, O. CHAVEZ, 2006, VARGAS Y AMADOR, 2007 present in their studies results in the same period, but with much higher values. In the second third of gestation, 3 cows were observed for 13%, the same authors also had a greater number of pregnant women in this phase. Analyzing the pregnant cows in the third and last third of gestation, 10 cows are presented, which represents 60%, the highest value in the entire period, the authors cited above, present in this phase a much smaller amount unlike the previous results, which were well above the results obtained in our study. If it is taken into account that the number of animals used by the different authors is dissimilar, we must carry out new studies in Manabí with a higher N than the one used in this first work.

DISCUSSION

Different authors consulted in this work, showed high percentages of pregnant euthanized females in their results, J, Luzuriaga. (2013,) 48.8%. L, Sanchez. (2014) 66.3%. M, Elizarde. (2009). 50.4%. M, Garcia. (2014). Oh, Chavez. (2006), 55.31%. Vargas, A and Amador, E. (2007), 34.4%, which does not agree with our results, 16.6%, which are much more discreet. These same authors, except J, Luzuriaga. (2013) and M, Elizarde. (2009), also present much higher figures than we do in the three moments of gestation that were submitted to the analysis, first, second and third third of gestation (Table 1).

A result of ours that is very different from the rest of the authors consulted is that, in the third third of gestation, we have 60% of pregnant females sacrificed, several times higher than the rest of the authors (Table 1). It is interesting to look for the causes, the possible weight of the differences between the samples under investigation and the methods

used by the authors.

ECONOMIC VALUATION

Economic losses are in direct proportion to the number of females culled, their genotype, the number of previous and potential lactations, the average duration of lactation in culled genotypes, the price of milk, meat, and calves. and calves at the time of slaughter and the slaughter of young females suitable for reproduction.

We will estimate the economic losses when 1 pregnant cow is slaughtered in full physical and reproductive condition, with two births and two potential births, with their respective lactations and calves.

1. The cost of replacement is 700-800 US dollars.
2. Two lactations with an average duration of 200 days each, which would be 400 days, producing three to four liters of milk per day, at a price of 0.25 cents per liter, for a loss of US\$400.
3. Two lost calves, female or male, which have an estimated cost of US\$100 at weaning, would be US\$200 in loss regardless of their genotype. The estimated potential economic loss for each pregnant cow slaughtered is US\$1,400.

Therefore, in the case at hand, the slaughter of the 15 pregnant females in the Manabí slaughterhouses generated an estimated loss of US\$21,000.

This is without taking into account the expenses for transportation, labor and other less notorious elements, which are incurred for the slaughter and which must be considered as losses in the process. In addition to the affectation that these sacrifices produce in the total cattle mass of the province and the country.

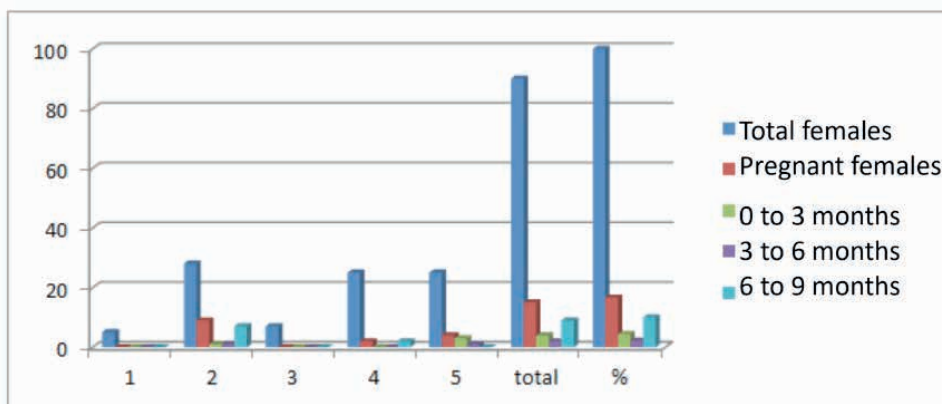
TABLES AND FIGURES

AUTHORS	% GESTANTS	1ER THIRD	2DO THIRD	3ER THIRD	YAER	COUNTRY
J. LUZURIAGA, 2013	46.8					ECUADOR
L. SANCHEZ, 2014	66.3	30	60	10	2014	COLOMBIA
M. ELIZALDE, 2009	50.4				2009	ECUADOR
M. GARCIA, 2014	50	40.3	52.2	7.5	2014	ECUADOR
O. CHAVEZ, 2006	55.31	44.13	36.20	19.67	2005	COLOMBIA
VARGAS, A AMADOR, E 2007	34.4	49.4	37.5	13	2007	NICARAGUA
J. VÉLIZ Y COL.	16.6	27	13	60	2015	ECUADOR

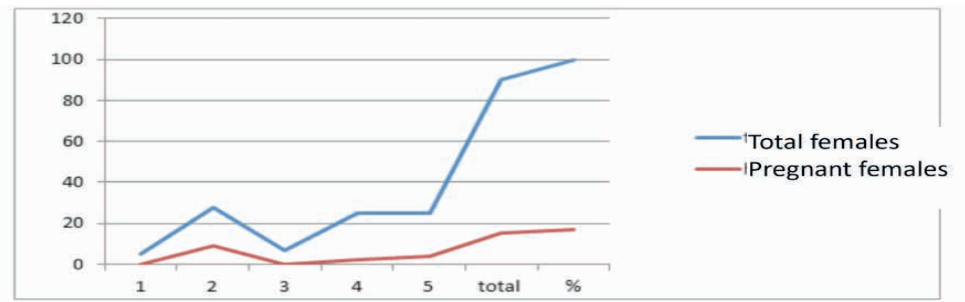
Table 1.- Results of other authors. % of pregnant cows and moment of gestation.

SLAUGHTERHOUSE	Total FEMALES	FEMALES GESTANT	0 a 3 MONTHS	3 a 6 MONTHS	6 a 9 MONTHS
1	5	0	0	0	0
2	28	9	1	1	7
3	7	0	0	0	0
4	25	2	0	0	2
5	25	4	3	1	0
total	90	15	4	2	9
%	100	16,67	4,44	2,22	10

Table 2.- Total number of cows, pregnant cows by slaughterhouses and gestation status



Graph 1.- Slaughtered females and gestation level



Graph 2.- Total number of slaughtered females and pregnant females in the different slaughterhouses



Image 1.- Embryo of approximately one month.



Image 2.- Uterus with a gestation of approximately one month.



Image 3.- Uterus with a gestation of approximately three months.



Image 4.- Fetus with approximately three months.



Image 5.- Fetus with approximately 5 months.

CONCLUSIONS

The results obtained in the present work indicate that other countries have a worse situation than the province of Manabí in the subject addressed, slaughter of pregnant females in slaughterhouses, but in any case it is not admissible that this continue to be present in Manabí livestock, nor in the country. The argument of economic necessity is frequent to justify the sale and slaughter of pregnant cattle, but this practice, especially in the negative conditions of some slaughterhouses, violates Ecuadorian and world legislation, ethics, economics, and health standards. public. It is necessary to continue investigating the topic with a broader design and with a larger population. The rules established for animal exploitation are still not being met. It is necessary to control this problem at both

points, production area and slaughterhouses.

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