

Proceeding Paper

Main Reasons for the Seizure of Meat and Offal in Slaughterhouses in the Region of Adrar (Algeria) [†]

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Abstract: The main of this study is to determine the nature and frequency of the different reasons for the seizure of meat and offal in the camel compared to the other ruminants slaughtered under the same conditions. This study is a synthesis of the slaughterhouse records that are part of the activity of the veterinary inspection office of the agricultural services of the wilaya of Adrar during 2017. Camels accounted for 10.4% of the total meat produced at the slaughterhouse in 2017, after the sheep, with 77.8%. The percentage of seizures for meat in camel is 3.12%. The highest weight of seized meat is observed in sheep, with 3665 kg, then camel, with 150 kg. Traumatized meat is the predominant reason for seizures, with 3.12% (150 kg) and 81.81% (115 kg) for camel and sheep, respectively. The dromedary is in the second class for the seizure of red offal after sheep, with an estimated loss of 316.3 kg, of which 88.88% of seizures are represented by lung lesions. Pneumonia is the greatest reason for offal seizure at 1.1%, followed by pulmonary hydatidosis at 0.36%. The dominant cases lead to considerable losses of animal protein. The loss of protein in a country that lacks sufficient sources shows how worrying seizures are.

Keywords: camel; slaughterhouse; seizure; meat; offal



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1. Introduction

In Algeria, Camelin breeding plays an economic, social, and cultural role and is part of the country's animal production development strategy [1]. It is present in 17 wilayas, 8 Saharans, and 9 steppes [2].

At the national level, Adrar wilaya ranked second with an average size that stabilized around 41 thousand head between 2000 and 2015 year, after Tamanrasset [1]. Indeed, camel is considered an important source of animal protein for Saharan populations [3,4], cited by [5]. The main of this study is to assess the reasons for the seizure of meat and offal of camels during the 2017 year in slaughterhouses in comparison with the other ruminants and to assess the associated economic loss for the breeder.

2. Material and Methods

The wilaya of Adrar occupies a large part of the Algerian southwest; it covers an overall area of 17.97% of the national territory [6]. The climate is desert-type. This wilaya has 8 slaughterhouses. Four animal species were the subject of our study, namely cattle, sheep, goats, and camels, which are slaughtered in each slaughterhouse belonging to the wilaya of the study.

The statistical data presented by this study were obtained by a synthesis of the monthly stock records of slaughterhouses in the wilaya during 2017.

The total number of animals inspected shall be cattle (1037 heads, 18,482 tons of meat), sheep (77,753 heads and 1,509,901 tons of meat), camels (10,425 heads and 198,766 tons of meat), and goats (10,710 heads and 1875 tons of meat).

The percentage of sanitary seizure was calculated for each pathological reason, both for carcasses and for offal.

3. Results and Discussion

3.1. Proportion of Camel Meat Slaughtered in Relation to Other Red Meat

The number of dromedaries slaughtered varies according to market demand. Camels accounted for 10.4% of the total meat produced at the slaughterhouse in 2017. It is in second place after ovine meat, which represents the highest proportion, with an average of 77.8%. This is followed by the goat, which represents a rate of 11%, and the last is beef, with a timid percentage of 1%. This level remains high, following the strong demand by consumers for this meat for dietary and consumption reasons [5]. The number of camels slaughtered is around 10,424, or a monthly average of 867.

3.2. Percentage of Meat Seized by Reason

The overall percentage of meat seizure observed during our study is high for sheep, with 90.62% (29 carcasses out of 32), followed by beef, camel, and goat, with 3.12% for each one. The total weight of seized meat is 527 kg. The highest weight of seized meat is observed in sheep with 3665 kg, then by camel with 150 kg, and finally with cattle with 10 kg.

This study showed that the majority of meat seizures are the result of various accidents, with 34.35% (275 kg) (catching, transport, and especially traffic accident victims, especially for camels), expressed by the predominance of seizures of traumatized meat with, respectively, 3.12% (10 kg), 3.12%(150 kg), and 81.81% (115 kg) for cattle, camel, and sheep.

3.3. Percentage of Offal Seized by Reason

For offal, the highest overall percentage of seizure is for red offal of sheep, with a percentage of 97.34%, followed by red offal of camels at 1.15%. Compared with camel, liver hydatidosis in sheep represents the highest rate of red offal seizure (61.12% vs. 0.33%), followed by lung hydatidosis (47.7% vs. 0.36%), liver abscess (34.69% vs. 0.11%), and lung abscess (34.29% vs. 0.13 %). While in camel, pneumonia is the most reason for offal seizure (1.1% vs. 15.02%), 88.88% of seizures are represented by lung lesions. In the other species, the lung lesions are, respectively, 79.64 %, 70.64%, and 53.84% in goats, sheep, and cattle.

The economic losses associated with the seizure of red offal were remarkable, with sheep occupying the first position with 4404.2 kg. The dromedary is in the second class with an estimated loss of 316.3 kg. It is noted that the total weight of the lung seized represents two-thirds of the weight of the liver seized in sheep (30,059 kg vs. 13,983 kg), and ten times greater in dromedary (2873 kg vs. 29 kg).

4. Conclusions

The purpose of this study is to determine the nature and frequency of the different seizure reasons for meat and offal in the camel compared to the other ruminants slaughtered under the same conditions.

A comparison between the animals studied has the objective of drawing the conclusion of the profitability of the camel compared to other species; in addition, it is known for its resistance to thirst, heat, and protein undernutrition in a very harsh environment; it is also very resistant to a large number of pathologies.

The dominant motives lead to considerable losses of animal protein.

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