Evaluation of Qualitative Indices of Meat Production in Rabbits

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Abstract
Meat, in most cases, is the basic production obtained in rabbits. The influence on meat quality and quantity have such factors as breed, age, slaughter gain, sex, etc. By age, adult rabbits have a higher body weight compared with the young, but their meat is more expensive. The most convenient is intensive growth of youth as the age of 3 months to be 2.3 to 2.5 kg body weight, food and labor costs during this period was minimal. It is considered optimal as young rabbits are slaughtered when they reach 50-60% by weight of adult animals. The biological material which was used was represented in two groups of Chinchilla rabbit and Flanders breed, each one consisting of seven rabbits of various sex. Groups of rabbits had the same conditions of maintenance and nutrition. Carcass weight was determined at slaughter, carcass meat, bones, by-products, blood, head, skin of young rabbit. The largest share of the carcass of live weight was obtained at age 4 months - 59%, and meat in the carcass weight at 2 months of life - 71.2% at Chinchilla breed. On average 31.9% had bones, by-products - 6.23%, blood - 3.78% head - 8.21% and skin of young rabbit - 11.9%. Average of carcass weight from live weight was 52.76%, in Flanders breed the highest recorded at age 4 months and 66.78% of the carcass meat, the highest being at 2 months old. The average weight of bones was 33.21%, by-products - 6.25%, blood - 3.53%, the head - 7.86%, and the skin of young rabbit - 11.89%. Slaughter gain ranged from 47% to 59% at Chinchilla breed, and from 47% to 60% in Flanders breed. The highest index was recorded in both breeds at the age of four months.

Keywords: meat carcass weight, rabbits, slaughter yield, weight carcass weight

1. Introduction

Meat, in most cases, is the basic production obtained in rabbits. The meat quality and quantity is influenced by a lot of factors such as breed, age, slaughter gain, sex, etc. By age, adult rabbits have a higher body weight compared with the young, but their meat is more expensive. The most convenient is intensive youth rising up till the age of 3 months to be 2.3 to 2.5 kg body weight, ar food and labour costs during this period are minimal.

It is considered optimal as young rabbits are slaughtered when they reach 50-60% by weight of adult animals [1]. Rabbits are bred primarily for meat production, at the same time for other products such as skin of youne rabbit, hair, wool, and some by-products. The category of by-products obtained from rabbits can be considered: blood, language, brain, lungs, kidneys, stomach, ears [2]. The production of units specialized in rabbits is therefore appropriate for assessing the production of meat after slaughter and its quality and quantity of carcass [3, 4]. Selection for production of rabbit meat is based on the following criteria:
1. Body weight at birth.
2. Body weight at weaning
3. Slaughter weight.
4. Average of daily weight gain at the period birth-weaning.
5. Average of daily weight gain during the weaning-slaughter period.
6. Precocity
7. The specific consumption of fodder
8. The development and body conformation type
9. Slaughter yield
10. The ratio of meat/bone
11. Share valuable carcass parts
12. Share products and by-products
13. Measurements on the carcass
14. Meat Quality

After [5] rabbit meat production is assessed by the yield at slaughter, carcass weight obtained at slaughter, the ratio between the amount of edible and inedible in the live animal, as the chemical composition and indices of meat quality. The mass slaughter efficiency is the carcass without head, internal organs, and fur, and is determined by the ratio of carcass weight to live weight at slaughter. Mass slaughter of carcass and the yield is increased with the rabbit age. The highest slaughter yield was observed at California breed (54.3%) at the age of 120 days, and at Viennese Blue breed (55.64%) at the same age. Cucsov G. [6] considered optimal slaughter age for most breeds of rabbits is 110-130 days of life, except for Gray giant and Black-brown breeds. Optimal age of these breeds are considered to 160 days of life. At Chinchilla breed highest slaughter yield is obtained at age 7-8 months and it is 59.2%. Specialized breeds of rabbits for meat production (California and Neozelandeză), return of the slaughter gain at the age of 2-3 months reaches 60%, and specialized ones for the production of meat and fur - 50-55% [7].

The aim of the research was to study the criteria for assessing the production of rabbits meat.

2. Materials and methods

The biological material which was used was represented in two groups of Chinchilla and Flanders breeds, each one consisting of seven rabbits of various genres. The groups of rabbits had the same conditions of maintenance and nutrition. Each month was killed by a rabbit from each group. At the sacrificed rabbits were appreciated the following criteria:

1. weight at slaughter age
2. daily weight gain
3. to slaughter yield
4. the ratio of meat/bone
5. sare products and by-products.

3. Results and discussion

An importance is the weight ratio of different parts of the body, report the amount of which varies by age, sex, breed conditions and maintenance.

In table 1 is presented the data obtained from slaughtering rabbits to the age of 7 months of Chinchilla breed. Carcass weight was determined at slaughter, carcass meat, by-products, blood, head, skin of young rabbits.

The largest share of the carcass of live weight was obtained at age 4 months - 59%, and meat in the carcass weight at 2 months of life - 71.2%. On average of bones was 31.9%, by-products - 6.23%, blood - 3.78% head - 8.21% and skin of young rabbits - 11.9%.

Table 1. Data obtained at slaughter of Chinchilla breed of rabbits

<table>
<thead>
<tr>
<th>Age at slaughter, month</th>
<th>Body weight (g)</th>
<th>Average of carcass weight (%)</th>
<th>Average of meat in carcass (%)</th>
<th>Average of bones in carcass (%)</th>
<th>Average of by-products (%)</th>
<th>Average of blood (%)</th>
<th>Average of head (%)</th>
<th>Average of young skin of rabbits (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 month</td>
<td>1540</td>
<td>49</td>
<td>71.2</td>
<td>28.8</td>
<td>6.49</td>
<td>3.89</td>
<td>11.03</td>
<td>10.71</td>
</tr>
<tr>
<td>3 month</td>
<td>2600</td>
<td>58</td>
<td>64</td>
<td>36</td>
<td>4.8</td>
<td>3.84</td>
<td>8.26</td>
<td>11.15</td>
</tr>
<tr>
<td>4 month</td>
<td>3550</td>
<td>59</td>
<td>68.8</td>
<td>31.2</td>
<td>5.35</td>
<td>3.09</td>
<td>8.45</td>
<td>11.54</td>
</tr>
<tr>
<td>5 month</td>
<td>4440</td>
<td>52</td>
<td>69.65</td>
<td>30.3</td>
<td>5.68</td>
<td>4.09</td>
<td>8.06</td>
<td>12.95</td>
</tr>
<tr>
<td>6 month</td>
<td>5250</td>
<td>47</td>
<td>69.1</td>
<td>30.9</td>
<td>7.42</td>
<td>4</td>
<td>6.95</td>
<td>12.66</td>
</tr>
<tr>
<td>7 month</td>
<td>5800</td>
<td>48</td>
<td>65.4</td>
<td>34.6</td>
<td>7.67</td>
<td>3.79</td>
<td>6.55</td>
<td>12.93</td>
</tr>
<tr>
<td>Average</td>
<td>3870</td>
<td>52.16</td>
<td>68.02</td>
<td>31.96</td>
<td>6.23</td>
<td>3.78</td>
<td>8.21</td>
<td>11.99</td>
</tr>
</tbody>
</table>

Data from Flanders rabbits at slaughter are presented in Table 2. Average of carcass weight of

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live weight was 52.76%, the highest recorded at age of 4 months and the carcass meat was 66.78%, the highest being at 2 months old.

The average weight of bones was 33.21%, by-products - 6.25%, blood - 3.53%, head - and skin of young rabbits - 7.86% - 11.89%.

### Table 2. Data obtained at slaughter of Flander breed of rabbits

<table>
<thead>
<tr>
<th>Age at slaughter, month</th>
<th>Body weight (g)</th>
<th>Average of carcass weight (%)</th>
<th>Average of meat in carcass (%)</th>
<th>Average of bones in carcass (%)</th>
<th>Average of by-products (%)</th>
<th>Average of blood (%)</th>
<th>Average of head (%)</th>
<th>Average of young skin of rabbits (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 month</td>
<td>1625</td>
<td>48</td>
<td>70.5</td>
<td>29.5</td>
<td>6.2</td>
<td>3.7</td>
<td>10.5</td>
<td>10.15</td>
</tr>
<tr>
<td>3 month</td>
<td>2575</td>
<td>58.6</td>
<td>62.9</td>
<td>37.1</td>
<td>4.5</td>
<td>3.9</td>
<td>7.6</td>
<td>10.7</td>
</tr>
<tr>
<td>4 month</td>
<td>3250</td>
<td>60</td>
<td>64.6</td>
<td>35.4</td>
<td>5.5</td>
<td>3.7</td>
<td>7</td>
<td>10.8</td>
</tr>
<tr>
<td>5 month</td>
<td>4120</td>
<td>55</td>
<td>68.4</td>
<td>31.6</td>
<td>5.6</td>
<td>4.9</td>
<td>8.5</td>
<td>13.34</td>
</tr>
<tr>
<td>6 month</td>
<td>5050</td>
<td>47</td>
<td>70</td>
<td>30</td>
<td>7.9</td>
<td>4.4</td>
<td>7.1</td>
<td>13.26</td>
</tr>
<tr>
<td>7 month</td>
<td>5790</td>
<td>48</td>
<td>64.3</td>
<td>35.7</td>
<td>7.8</td>
<td>4.3</td>
<td>6.5</td>
<td>12.95</td>
</tr>
<tr>
<td>Average</td>
<td>3735</td>
<td>52.76</td>
<td>66.78</td>
<td>33.21</td>
<td>6.25</td>
<td>3.53</td>
<td>7.86</td>
<td>11.86</td>
</tr>
</tbody>
</table>

Slaughter gain is a great interest for both the farmer and the consumer. Because of this, farmers trends have been and still getting rabbit with major features of the quantity and higher quality of meat produced at a price as low cost

In figure 1 is shown the slaughter yield of rabbits aged 2 months to 7 months of life. The average of slaughter yield was 52.16% at Chinchilla breed and 52.76% at Flanders breed. The highest yield was obtained from rabbits sacrificed at age 4 months - 59% Chinchilla breed and 60% at Flanders breed. The data presented can be inferred that the optimal age of slaughter of rabbits is recommended at 4 months of life, the quantitative indicators are the most superior.

### 4. Conclusions

1. The average of carcass weight was obtained 1990.9 g, or 52.16% of the alive animal before slaughter.
2. Meat of the carcass weight ranged from 64 to 71.2%, averaging 68.02%.
3. The average share was 31.96% of the bones, by-products - 6.23%, blood - 3.78% of the head - 8.21% of skin of young rabbit - 11.99%.
4. Slaughter yield ranged from 47% to 59% at Chinchilla breed, and from 47% to 60% in Flanders breed. The highest was recorded in both breeds at the age of four months.

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