**Carcass and meat quality characteristics of suckling lambs from Churra and Assaf breeds**

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**Supplementary Table S1** *Weights (kg) of the lambs used in the experiment during the rearing period for each breed (Churra and Assaf; the last weight was the slaughter weight)*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Churra | | | | | | | |  | Assaf | | | | | | | |
| Lamb code/  age (day) |  | 642 | 648 | 651 | 664 | 666 | 668 | 671 | 672 |  | 648 | 649 | 656 | 663 | 668 | 670 | 684 | 687 |
| Birth (Month/  Day) |  | 04/  19 | 04/  23 | 04/  24 | 04/  25 | 04/  26 | 04/  26 | 04/  27 | 04/  27 |  | 05/  08 | 05/  08 | 05/  09 | 05/  09 | 05/  10 | 05/  10 | 05/  13 | 05/  15 |
| 0 |  |  | 4.0 | 3.9 |  | 2.9 | 4.6 | 4.1 | 3.5 |  | 4.8 |  | 4.9 | 5.1 | 5.5 | 5.1 | 5.5 |  |
| 1 |  |  |  |  | 3.8 |  |  | 4.3 | 3.9 |  |  | 4.6 |  |  |  |  |  | 5.5 |
| 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4.8 | 5.6 |  |  |
| 3 |  |  |  |  |  | 3.3 | 4.8 |  |  |  |  |  | 4.3 |  | 4.6 | 5.2 | 4.7 | 6.2 |
| 4 |  |  |  |  | 4.2 |  |  |  |  |  | 5.7 | 4.9 | 4.5 |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |  |  | 5.9 | 4.5 |  |  |  |  | 5.9 | 6.8 |
| 6 |  |  | 5.8 |  |  |  |  | 5.4 | 4.8 |  |  |  |  |  | 4.6 | 5.1 |  |  |
| 7 |  |  |  |  |  | 3.9 | 6.0 |  |  |  |  |  | 4.6 |  |  |  | 6.2 |  |
| 8 |  |  |  |  | 4.7 |  |  |  |  |  | 9.6 | 5.3 |  |  | 4.9 | 5.8 |  | 7.1 |
| 9 |  |  |  |  |  |  |  | 5.9 | 5.6 |  |  |  |  | 4.9 |  |  |  |  |
| 10 |  |  | 6.5 |  |  | 4.4 | 6.7 |  |  |  |  | 7.1 | 5.8 |  | 5.1 | 6.2 | 7.0 |  |
| 11 |  |  |  |  | 5.4 |  |  |  |  |  |  |  |  | 5.7 |  |  |  | 7.7 |
| 12 |  |  |  |  |  |  |  | 6.8 | 6.5 |  |  | 8.2 | 6.4 |  |  |  |  |  |
| 13 |  |  | 7.3 |  |  | 4.8 | 7.9 |  |  |  |  |  |  |  | 6.2 | 7.6 |  | 8.5 |
| 14 |  |  |  |  | 6.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 |  |  |  |  |  |  |  | 7.7 | 7.6 |  | 9.4 | 7.5 | 6.4 | 8.2 | 6.9 | 8.1 | 7.8 |  |
| 16 |  |  | 8.4 |  |  | 5.4 | 9.2 | 7.9 | 8.1 |  |  |  |  |  |  |  |  | 9.4 |
| 17 |  |  |  |  | 7.5 | 5.6 | 9.4 |  |  |  | 10.2 | 8.5 | 7.2 | 8.5 | 7.8 | 9.0 | 8.5 |  |
| 18 |  |  |  |  | 7.8 |  |  |  |  |  |  |  |  |  |  |  |  | 10.3 |
| 19 |  |  | 9.8 |  |  |  |  | 9.3 | 9.1 |  |  | 9.2 | 7.8 | 9.3 |  |  |  |  |
| 20 |  |  | 10.2 |  |  | 6.5 | 10.4 |  |  |  |  |  |  |  | 8.8 | 10.0 | 9.9 |  |
| 21 |  |  |  |  | 8.3 |  |  | 10.2 | 10.1 |  |  |  |  |  |  | 10.4 | 10.1 |  |
| 22 |  |  |  |  |  | 7.0 | 10.9 |  |  |  |  | 10.6 | 9.0 | 10.6 | 10.0 |  |  |  |
| 23 |  |  | 11.2 |  | 8.6 |  |  |  |  |  |  | 11.3 | 9.3 | 11.0 |  |  |  |  |
| 24 |  |  |  |  |  | 7.5 |  |  |  |  |  |  |  |  |  |  |  |  |
| 25 |  |  | 12.0 | 9.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 27 |  |  |  |  |  | 8.3 |  |  |  |  |  |  |  |  |  |  |  |  |
| 28 |  |  |  | 10.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 29 |  |  |  |  |  | 8.9 |  |  |  |  |  |  |  |  |  |  |  |  |
| 30 |  | 9.5 |  | 10.9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 33 |  | 10.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 35 |  | 10.9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Supplementary Table S2** *Percentages of commercial joints and tissues obtained from the leg in relation to breed*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Breed | |  |  | Significance |
|  | Churra  (n=8) | Assaf  (n=8) |  | RMSE |  |
|  |  |  |  |  |  |
| Joints (%) |  |  |  |  |  |
| Leg | 34.0 | 34.0 |  | 0.6 | NS |
| Loin | 27.6 | 26.6 |  | 0.9 | + |
| Shoulder | 20.4 | 20.9 |  | 0.7 | NS |
| Breast and flank | 10.4 | 10.5 |  | 0.5 | NS |
| Neck | 7.7 | 8.0 |  |  | NS |
|  |  |  |  |  |  |
| Leg main tissues (%) |  |  |  |  |  |
| Muscle | 60.2 | 61.4 |  | 2.5 | NS |
| Bone | 28.4 | 27.1 |  | 1.5 | NS |
| Fat | 9.2 | 9.1 |  | 1.5 | NS |
| Others/remainders | 2.2 | 2.3 |  | 0.8 | NS |
|  |  |  |  |  |  |

RMSE = Root mean square error.

NS, not significant; +, *P* < 0.1.

**Supplementary Table S3** Texture profile analysis results for suckling lamb raw meat in relation to breed at two different days postmortem

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Day 2 | |  | Day 7 | |  |  |  | Significance | |
|  | Churra  (n = 8) | Asaff  (n = 8) |  | Churra  (n = 8) | Asaff  (n = 8) |  | RMSE |  | Breed | Time |
| Hardness (N) | 152 | 159 |  | 134 | 148 |  | 21 |  | NS | + |
| Springiness | 0.20 | 0.18 |  | 0.18 | 0.18 |  | 0.03 |  | NS | NS |
| Cohesiveness | 0.30 | 0.27 |  | 0.26 | 0.29 |  | 0.08 |  | NS | NS |
| Chewiness (N) | 10.09 | 8.21 |  | 6.68 | 8.39 |  | 3.13 |  | NS | NS |

RMSE = Root mean square error.

NS, not significant; +, *P* < 0.1.