

VARIATION OF THE ECONOMICAL EFFICIENCY OF PIG CARCASSES ACCORDING QUALITY CLASSES

VARIAȚIA EFICIENȚEI ECONOMICE A CARCASELOR DE PORCINE ÎN FUNCȚIE DE CLASELE DE CALITATE

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The profitability of pork disjoint-packing activity depends on the carcass quality. Carcasses of superior types, respectively „E” and „U” generate higher profit on the kilogram of disjoint carcass, in comparison with the carcasses of medium type „R” and inferior types „O” and „P”.

Key words: pig carcass, cutting pieces, index of cutting.

Introduction

After the implementation of EUROP classification system for pig carcasses and their selling according to it, the cutting units make reports of cutting according to the quality class of the carcasses. Thus, each cutting-packing unit estimates the efficiency of the activity according to the quality of the carcasses. The profitability of carcasses is directly proportional with their quality, even if the purchasing cost for the superior carcasses is higher than for the medium and inferior carcasses.

Materials and Methods

The models of cutting are different from one economic agent to another, depending on the beneficiaries request and on the selling opportunities. However, these models of disjoint have almost the same structure (Figure 1). Variations refer to the meat ranges that are obtained from anatomic parts that are boned or unboned and degreased or undegreased or sections determined out of these parts. The most required and the best sold parts are 3D (boneless-fatless-denerveless).

As for the economic aspects of the carcass (cutting indexes) they differ depending on its rating class, according to EUROP classification system. This fact is justified by the relation meat-fat and by the parts percentage in the carcass.

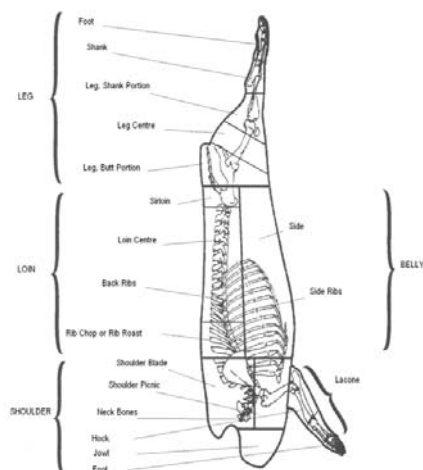


Fig. 1 The positions of cutting pieces on pork carcass

We made a series of experimental disjoints in order to establish the profitability of the pig carcasses from different quality classes. We analyzed the carcasses in the marginal and medium classes of EUROP system, respectively 36 carcasses class E (with over 55 % muscular tissue), 36 carcasses class R (with muscular tissue between 50-45%) and 36 carcasses class P (muscular tissue under 40%). The disjoints were made in the same technological conditions, and the costs, besides those generated by the raw material, (carcasses) and the rate of profit are identical. (Tables 1,2,3).

Table 1.

Cutting report for „P” class carcasses

| Carcass | Pieces | Kg | Kg/piece | Acquisition cost /Kg | Total cost carcass acquisition |
|---------|--------|-------|----------|----------------------|--------------------------------|
| class P | 36 | 2.730 | 75,83 | 1,53 | 4.182 |

| Nr. | Sort | Cutting indexes | Kg | Production prices | Value |
|-----|--------------------------|-----------------|-----|-------------------|-------|
| 1 | Filet | 1,03 | 28 | 4,42 | 124 |
| 2 | Loin - boneless | 5,31 | 145 | 4,64 | 673 |
| 3 | Shoulder blade-boneless | 4,32 | 118 | 4,24 | 500 |
| 4 | Leg - boneless | 12,64 | 345 | 3,04 | 1.047 |
| 5 | Shoulder picnic-boneless | 5,16 | 141 | 2,90 | 409 |

| | | | | | |
|----|-------------------|---------------|--------------|------------|--------------|
| 6 | Processing pork | 11,36 | 310 | 2,21 | 684 |
| 7 | Belly- chest | 3,41 | 93 | 1,79 | 167 |
| 8 | Belly-side | 0,84 | 23 | 2,35 | 54 |
| 9 | Shank | 5,05 | 138 | 1,53 | 211 |
| 10 | Ribs | 3,08 | 84 | 0,31 | 26 |
| 11 | Vertebral bones | 5,68 | 155 | 0,33 | 51 |
| 12 | Skin | 3,44 | 94 | 0,42 | 40 |
| 13 | Tails | 0,15 | 4 | 0,42 | 2 |
| 14 | Foot | 1,10 | 30 | 0,43 | 13 |
| 15 | Fat without skin | 15,97 | 436 | 0,56 | 245 |
| 16 | Back fat | 17,51 | 478 | 0,56 | 269 |
| 17 | Bones + sweepings | 3,52 | 96 | 0,28 | 26 |
| 18 | Processing lost | 0,44 | 12 | 0 | --- |
| | TOTAL | 100,00 | 2.730 | --- | 4.541 |

Source: Personal experiment

In this relation of „P” class carcasses disjoint (Table 1.) we notice a very high percentage (33,5%) for lards ranges (polished bacon and greases without rind). This fact implies a lower profitability for „P” class carcasses, because of the reduced economic value of these products. At the same time, the percent of the parts with higher economic value, such as muscles, boned chop, boned neck, boned leg and boned shoulders, is low (28,5%).

Table 2.

Cutting report for R class carcasses

| Carcass | Pieces | Kg | Kg/piece | Acquisition cost/Kg | Total cost carcass acquisition |
|---------|--------|-------|----------|---------------------|--------------------------------|
| class R | 36 | 2.557 | 73,01 | 1,67 | 4.269 |

| Nr. | Sort | Cutting indexes | Kg | Production prices | Value |
|-----|--------------------------|-----------------|-----|-------------------|-------|
| 1 | Filet | 1,29 | 33 | 4,42 | 146 |
| 2 | Loin - boneless | 6,45 | 165 | 4,64 | 766 |
| 3 | Shoulder blade-boneless | 5,01 | 128 | 4,24 | 542 |
| 4 | Leg - boneless | 14,67 | 375 | 3,04 | 1.138 |
| 5 | Shoulder picnic-boneless | 6,61 | 169 | 2,90 | 490 |

| | | | | | |
|----|-------------------|--------|-------|------|-------|
| 6 | Processing pork | 13,73 | 351 | 2,21 | 775 |
| 7 | Belly- chest | 7,63 | 195 | 1,79 | 350 |
| 8 | Belly-side | 0,94 | 24 | 2,35 | 56 |
| 9 | Shank | 5,12 | 131 | 1,53 | 200 |
| 10 | Ribs | 3,36 | 86 | 0,31 | 27 |
| 11 | Vertebral bones | 6,10 | 156 | 0,33 | 51 |
| 12 | Skin | 3,72 | 95 | 0,42 | 40 |
| 13 | Tails | 0,16 | 4 | 0,42 | 2 |
| 14 | Foot | 1,17 | 30 | 0,43 | 13 |
| 15 | Fat without skin | 12,83 | 328 | 0,56 | 185 |
| 16 | Back fat | 7,00 | 179 | 0,56 | 101 |
| 17 | Bones + sweepings | 3,75 | 96 | 0,28 | 26 |
| 18 | Processing lost | 0,47 | 12 | 0,00 | --- |
| | TOTAL | 100,00 | 2.557 | --- | 4.908 |

Source: Personal experiment

In Table 2. the disjoint relation of „R” class carcasses is presented. The percentage of greases ranges is 19,8%, that is a medium level of them. The profitability of „R” class carcasses is medium, because of the percent of the high economic value parts, such as muscles, boned chop, boned neck, boned leg and boned shoulders, is low (34,0 %).

Table 3.

Cutting report for E class carcasses

| Carcass | Pieces | Kg | Kg/piece | Acquisition cost /Kg | Total cost carcass acquisition |
|---------|--------|-------|----------|----------------------|--------------------------------|
| class E | 36 | 2.451 | 68,08 | 1,84 | 4.498 |

| Nr. | Sort | Cutting indexes | Kg | Production prices | Value |
|-----|--------------------------|-----------------|-----|-------------------|-------|
| 1 | Filet | 1,35 | 33 | 4,42 | 146 |
| 2 | Loin - boneless | 7,63 | 187 | 4,64 | 868 |
| 3 | Shoulder blade-boneless | 5,75 | 141 | 4,24 | 597 |
| 4 | Leg - boneless | 15,83 | 388 | 3,04 | 1.178 |
| 5 | Shoulder picnic-boneless | 6,57 | 161 | 2,90 | 467 |
| 6 | Processing pork | 17,26 | 423 | 2,21 | 934 |

| | | | | | |
|----|-------------------|---------------|--------------|------------|--------------|
| 7 | Belly- chest | 11,30 | 277 | 1,79 | 497 |
| 8 | Belly-side | 0,86 | 21 | 2,35 | 49 |
| 9 | Shank | 4,90 | 120 | 1,53 | 183 |
| 10 | Ribs | 3,47 | 85 | 0,31 | 27 |
| 11 | Vertebral bones | 6,61 | 162 | 0,33 | 53 |
| 12 | Skin | 3,71 | 91 | 0,42 | 38 |
| 13 | Tails | 0,12 | 3 | 0,42 | 1 |
| 14 | Foot | 1,14 | 28 | 0,43 | 12 |
| 15 | Fat without skin | 6,49 | 159 | 0,56 | 90 |
| 16 | Back fat | 2,82 | 69 | 0,56 | 39 |
| 17 | Bones + sweepings | 3,75 | 92 | 0,28 | 25 |
| 18 | Processing lost | 0,45 | 11 | 0,00 | --- |
| | TOTAL | 100,00 | 2.451 | --- | 5.205 |

Source: Personal experiment

The Table 3 presents the disjoint relation for „E” class carcasses. The percent of the greases ranges is of 9,31%, representing a very low level of the greases percent. „E” class carcasses profitability is high, because of the low percentage of the parts with reduced economic value and the high percent of the parts with reduced economic value, such as muscles, boned chop, boned neck, boned leg and boned shoulders, is low (37,13 %).

Results and Discussion

The medium price/kg of delivery for the disjointed parts, according to the carcasses rating class, for the analysed groups, is:

- class E - 2.12 €;
- class R - 1.92 €;
- class P - 1.66 €.

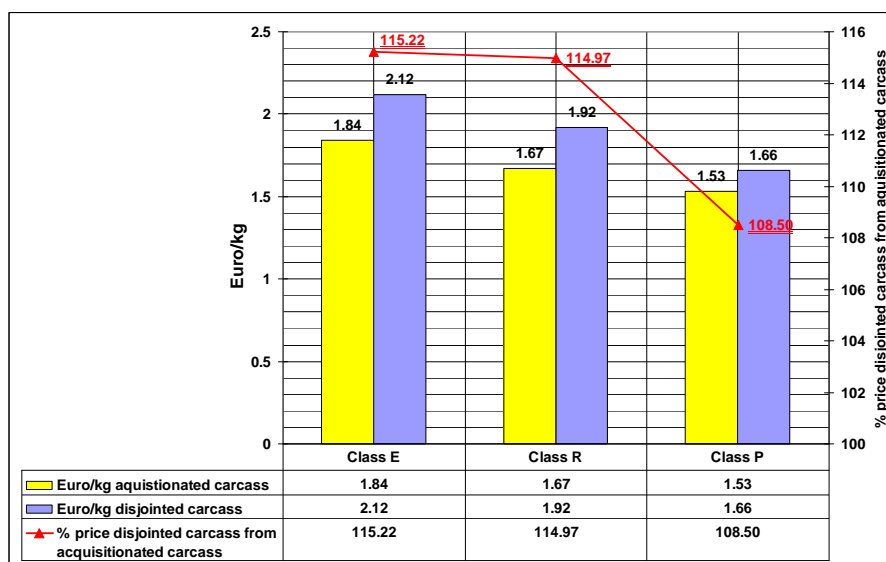


Fig. 2 Comparative analysis of economical efficiency of “E”, “R” and “P” quality classes of pig carcasses, according to EUROP System

Conclusions

The profitability of the carcasses is directly proportional to their quality. The profitability of carcasses is proportional to their quality even if the acquisition cost for the superior carcasses is higher than for the medium and inferior carcasses.

However, in practice, the carcasses of „E” class in Romania are relatively low in comparison to the carcasses in European Union. The pork producers act in order to increase the percent of „E” class carcasses, first of all, to deal with the competitors in EU.

References

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