

COMMISSION DECISION
of 19 December 2008
authorising methods for grading pig carcasses in Spain

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(Only the Spanish text is authentic)

(2009/11/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Regulation (EEC) No 3220/84 of 13 November 1984 determining the Community scale for grading pig carcasses ⁽¹⁾, and in particular Article 5(2) thereof,

Whereas:

- (1) Under Article 2(3) of Regulation (EEC) No 3220/84, the grading of pig carcasses is to be determined by estimating the lean meat content by means of statistically proven assessment methods based on the physical measurement of one or more anatomical parts of the pig carcass. The authorisation of grading methods is subject to compliance with a maximum tolerance for statistical error in assessment. This tolerance is defined in Article 3(2) of Commission Regulation (EEC) No 2967/85 of 24 October 1985 laying down detailed rules for the application of the Community scale for grading pig carcasses ⁽²⁾.
- (2) Commission Decision 88/479/EEC ⁽³⁾ authorises four methods (DEST, FOM, HGP and Autofom) for grading pig carcasses in Spain.
- (3) Due to technical adaptations, Spain has asked the Commission to authorise the update of two methods (FOM and Autofom), the utilisation of two new methods (Ultrafom 300 and VCS2000) and the repeal of two methods (HGP and DEST), and has presented the results of its dissection trials in the second part of the protocol provided for in Article 3(3) of Regulation (EEC) No 2967/85.
- (4) Examination of this request has revealed that the conditions for authorising these grading methods are fulfilled.
- (5) In accordance with the second subparagraph of Article 2(1) of Regulation (EEC) No 3220/84 Member States may be authorised to provide for a presentation of pig carcasses different from the one specified in that

Article where commercial practice or technical requirements warrant such a derogation. In Spain, commercial practice may require also the removal of the forefeet from the pig carcasses, in addition to the removal of the tongue, bristles, hooves, genital organs, fare flat, kidneys and diaphragm as required by Article 2(1) of Regulation (EEC) No 3220/84.

- (6) No modification of the apparatus or grading methods may be authorised except by means of a new Commission Decision adopted in the light of experience gained. For this reason, the present authorisation may be revoked.
- (7) For the sake of clarity, Decision 88/479/EEC should be repealed and replaced by a new Decision.
- (8) The measures provided for in this Decision are in accordance with the opinion of the Management Committee for the Common Organisation of Agricultural Markets,

HAS ADOPTED THIS DECISION:

Article 1

The use of the following methods is hereby authorised for grading pig carcasses pursuant to Regulation (EEC) No 3220/84 in Spain:

- (a) the apparatus termed 'Fat-O-Meater (FOM)' and assessment methods related thereto, details of which are given in Part 1 of the Annex;
- (b) the apparatus termed 'Fully automatic ultrasonic carcass grading (Autofom)' and assessment methods related thereto, details of which are given in Part 2 of the Annex;
- (c) the apparatus termed 'Ultrafom 300' and assessment methods related thereto, details of which are given in Part 3 of the Annex;
- (d) the apparatus termed 'Automatic vision system (VCS2000)' and assessment methods related thereto, details of which are given in Part 4 of the Annex.

⁽¹⁾ OJ L 301, 20.11.1984, p. 1.

⁽²⁾ OJ L 285, 25.10.1985, p. 39.

⁽³⁾ OJ L 234, 24.8.1988, p. 20.

Article 2

By way of derogation from Article 2 of Regulation (EEC) No 3220/84, pig carcasses may be presented also without forefeet before being weighed and graded. In this case, in order to establish quotations for pig carcasses on a comparable basis, the recorded hot weight shall be increased by 0,840 kilograms.

Article 3

Modifications of the apparatus or the assessment methods shall not be authorised.

Article 4

Decision 88/479/EEC is repealed.

Article 5

This Decision is addressed to the Kingdom of Spain.

Done at Brussels, 19 December 2008.

For the Commission

Mariann FISCHER BOEL

Member of the Commission

ANNEX

METHODS FOR GRADING PIG CARCASSES IN SPAIN

Part 1

FAT-O-MEATER (FOM)

1. Grading of pig carcasses shall be carried out by means of the apparatus termed 'Fat-O-Meater (FOM)'.
2. The apparatus shall be equipped with a probe of 6-millimetre diameter containing a photodiode of the Siemens SFH 950 type and a photodetector (type SFH 960), having an operating distance of between 3 and 103 millimetres. The results of the measurements are converted into estimated lean meat content by means of a computer.
3. The lean meat content of the carcase shall be calculated according to the following formula:

$$\hat{Y} = 66,91 - 0,895 X1 + 0,144 X2$$

where:

$\hat{Y}$ = the estimated lean meat content (in percentage),

$X1$ = the thickness of the fat between the third and fourth last rib at 60 mm of the midline of the carcase (in millimetres),

$X2$ = the thickness of muscle measured at the same time and in the same place as $X1$ (in millimetres).

This formula shall be valid for carcasses weighing between 60 and 120 kilograms.

Part 2

FULLY AUTOMATIC ULTRASONIC CARCASS GRADING (AUTOFOM)

1. Pig carcass grading shall be carried out using the apparatus termed 'Fully automatic ultrasonic carcass grading (Autofom)'.
2. The apparatus shall be equipped with sixteen 2 MHz ultrasonic transducers (Krautkrämer, SFK 2 NP), with an operating distance between transducers of 25 mm.

The ultrasonic data shall comprise measurements of back fat thickness and muscle thickness.

The results of the measurements are converted into estimated lean meat content using a computer.

3. The carcass's lean meat content shall be calculated on the basis of 34 measurement points using the following formula:

$$\begin{aligned} \hat{Y} = & 70,59614 - 0,0904 \cdot V22 - 0,23033 \cdot V23 - 0,15558 \cdot V44 + 0,086638 \cdot V46 - 0,09965 \cdot V48 - 0,10002 \cdot \\ & V49 - 0,11624 \cdot V51 - 0,05561 \cdot V52 - 0,04854 \cdot V53 - 0,0432 \cdot V54 - 0,00282 \cdot V55 + 0,051829 \cdot \\ & V57 + 0,036795 \cdot V58 - 0,00519 \cdot V59 - 0,0269 \cdot V60 - 0,06432 \cdot V61 - 0,05323 \cdot V62 - 0,05229 \cdot V64 \\ & - 0,0523 \cdot V65 + 0,005645 \cdot V72 - 0,06505 \cdot V73 - 0,04587 \cdot V74 + 0,015041 \cdot V77 + 0,030928 \cdot V78 \\ & - 0,08024 \cdot V79 - 0,07275 \cdot V80 - 0,07497 \cdot V85 - 0,06818 \cdot V86 - 0,06875 \cdot V87 - 0,04742 \cdot V90 - 0,00698 \cdot \\ & V91 + 0,046485 \cdot V92 - 0,10403 \cdot V93 + 0,160475 \cdot V123 \end{aligned}$$

where:

$\hat{Y}$ = the estimated lean meat content of the carcass,

$V22, V23, \dots V123$ are the variables measured with the Autofom.

4. Descriptions of the measurement points and the statistical method can be found in Part II of the Spanish protocol forwarded to the Commission in accordance with Article 3(3) of Regulation (EEC) No 2967/85.

This formula shall be valid for carcasses weighing between 60 and 120 kilograms.

Part 3**ULTRAFOM 300**

1. Grading of pig carcasses shall be carried out by means of the apparatus termed 'Ultrafom 300'.
2. The apparatus shall be equipped with an ultrasonic probe at 4 MHz (Krautkrämer MB 4 SE). The ultrasonic signal is digitised, stored and processed by a microprocessor (type Intel 80 C 32). The results of the measurements shall be converted into estimated lean meat content by means of the Ultrafom apparatus itself.
3. The lean meat content of the carcass shall be calculated according to the following formula:

$$\hat{Y} = 69,22 - 1,023 X_1 + 0,116 X_2$$

where:

$\hat{Y}$ = the estimated lean meat content (in percentage),

X_1 = the thickness of the fat between the third and fourth last rib at 70 mm of the midline of the carcass (in millimetres),

X_2 = the thickness of muscle measured at the same time and in the same place as X_1 (in millimetres).

This formula shall be valid for carcasses weighing between 60 and 120 kilograms.

Part 4**AUTOMATIC VISION SYSTEM (VCS2000)**

1. Grading of pig carcasses is carried out by means of the apparatus termed 'Automatic vision system (VCS2000)'.
2. The apparatus VCS 2000 is a picture-processing system for automatically determining the trade values of pork carcass halves. The system is used online within the slaughtering production system where via a camera system the carcass halves are automatically filmed. The picture data is then processed in a computer by special picture processing software.
3. The lean meat content of the carcasses shall be calculated on the basis of 70 measurement points according to the following formula:

$$\begin{aligned} \hat{Y} = & 37,49855 + 0,017715 \cdot X_2 - 0,00075 \cdot X_{40} - 0,02522 \cdot X_{50} - 0,04549 \cdot X_{52} - 0,0000335 \cdot X_{59} - 0,000093 \cdot \\ & X_{62} - 0,0000814 \cdot X_{63} - 0,0000715 \cdot X_{64} - 0,0000494 \cdot X_{66} - 0,0000482 \cdot X_{67} - 0,00047 \cdot X_{69} + 0,000304 \cdot \\ & X_{70} + 0,00867 \cdot X_{77} - 0,03007 \cdot X_{79} - 0,04575 \cdot X_{81} - 0,01742 \cdot X_{82} - 0,01768 \cdot X_{83} - 0,03114 \cdot X_{84} - 0,02549 \cdot \\ & X_{85} - 0,0265 \cdot X_{92} - 0,03299 \cdot X_{95} - 0,02472 \cdot X_{99} - 0,0399 \cdot X_{102} + 0,020178 \cdot X_{103} - 0,04614 \cdot \\ & X_{106} + 0,012659 \cdot X_{107} + 0,012256 \cdot X_{110} + 0,015358 \cdot X_{113} - 0,23294 \cdot X_{116} + 0,010157 \cdot X_{117} - 0,07282 \cdot \\ & X_{120} + 0,126624 \cdot X_{142} + 6,052785 \cdot X_{2/6} - 13,2893 \cdot X_{14/10} + 7,287408 \cdot X_{77/51} - 4,09296 \cdot X_{79/51} - 11,4326 \cdot \\ & X_{81/51} - 1,28847 \cdot X_{82/51} - 0,57019 \cdot X_{83/51} - 5,21869 \cdot X_{84/51} - 2,92106 \cdot X_{85/51} + 8,274608 \cdot X_{88/51} + 9,886478 \cdot \\ & X_{91/51} - 0,00442 \cdot X_{47/79} - 0,04848 \cdot X_{50/79} + 0,227913 \cdot X_{54/79} + 2,845209 \cdot X_{77/79} + 0,018409 \cdot X_{86/79} \\ & - 0,00838 \cdot X_{89/79} + 0,007447 \cdot X_{94/79} + 136,5994 \cdot X_{27/20} + 182,973 \cdot X_{29/20} - 6,82665 \cdot X_{59/20} - 261,768 \cdot \\ & X_{61/20} - 7,85416 \cdot X_{62/20} - 3,8587 \cdot X_{63/20} - 16,6166 \cdot X_{64/20} - 59,2087 \cdot X_{65/20} - 3,21138 \cdot X_{66/20} - 6,96096 \cdot \\ & X_{67/20} + 20,91982 \cdot X_{68/20} - 109,736 \cdot X_{69/20} + 243,641 \cdot X_{70/20} + 29,84246 \cdot X_{73/20} + 15,50442 \cdot X_{74/20} \\ & - 0,30367 \cdot X_{36/59} - 2,07787 \cdot X_{40/59} - 0,38605 \cdot X_{42/59} - 1,90547 \cdot X_{69/59} + 3,554836 \cdot X_{70/59} \end{aligned}$$

where:

$\hat{Y}$ = the estimated percentage of lean meat in the carcass,

$X_2, X_{40}, \dots, X_{70/59}$ are the variables measured with the VCS2000.

4. Descriptions of the measurement points and the statistical method can be found in Part II of the Spanish protocol forwarded to the Commission in accordance with Article 3(3) of Regulation (EEC) No 2967/85.

This formula shall be valid for carcasses weighing between 60 and 120 kilograms.