COMMISSION DECISION

of 16 March 1989

authorizing methods for grading pig carcases in Denmark

(Only the Danish text is authentic)

(89/253/EEC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community,

Having regard to Council Regulation (EEC) No 2759/75 of 29 October 1975 on the common organization of the market in pigmeat (1), as last amended by Regulation (EEC) No 3906/87 (2), and in particular Article 4 (6) thereof,

Having regard to Council Regulation (EEC) No 3220/84 of 13 November 1984 determining the Community scale for grading pig carcases (3), as amended by Regulation (EEC) No 3530/86 (4), and in particular Article 5 (2) thereof,

Whereas Article 2 (3) of Regulation (EEC) No 3220/84 provides that the grading of pig carcases must be determined by estimating the content of lean meat in accordance with statistically proven assessment methods based on the physical measurement of one or more anatomical parts of the pig carcase; whereas the authorization of grading methods is subject to compliance with a maximum tolerance for statistical error in assessment; whereas this tolerance has been defined in Article 3 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 carcases (5);

Whereas the use of the apparatus termed 'Kød-Spaek-Automatisk' ('KSA') has been authorized for Denmark by Commission Decision 87/169/EEC (6); whereas the Danish Government has requested to maintain the use of this method until 30 June 1990; whereas, in the meantime, it has appeared that the formula laid down in Decision 87/169/EEC for estimating the lean meat content of pig carcases needs to be adjusted;

Whereas the Danish Government has requested the Commission to authorize the use of two more methods for grading pig carcases on its territory and has submitted the information required in Article 3 of Regulation (EEC) No 2967/85; whereas an examination of this request has revealed that the conditions for authorizing the said grading methods are fulfilled;

Whereas a new Decision should be adopted to include all three methods for the sake of clarity; whereas, as a consequence, Decision 87/169/EEC should be repealed;

Whereas Article 2 of Regulation (EEC) No 3220/84 lays down that Member States may be authorized to provide for a presentation of pig carcases different to the standard presentation defined in the same Article where commercial practice or technical requirements so warrant;

Whereas in Denmark the technical requirements relating to the use of the grading method and, consequently, commercial practice, necessitate the removal of the kidneys, the flare fat and the diaphragm; whereas this should be taken into account in adjusting to the weight for standard presentation;

Whereas no modification of the apparatus or grading method may be authorized except by means of a new Commission Decision adopted in the light of experience gained; whereas, for this reason, the present authorization may be revoked;

Whereas the measures provided for in this Decision are in accordance with the opinion of the Management Committee for Pigmeat,

HAS ADOPTED THIS DECISION:

Article 1

The use of the following methods is hereby authorized for grading pig carcases pursuant to Regulation (EEC) No 3220/84 in Denmark:

— the apparatus termed 'Klassificeringscenter' ('KC') and the assessment method related thereto, details of which are given in Part 1 of the Annex,

(1) OJ No L 282, 1. 11. 1975, p. 1.
(2) OJ No L 370, 30. 12. 1987, p. 11.
(3) OJ No L 301, 20. 11. 1984, p. 1.
(4) OJ No L 326, 21. 11. 1986, p. 8.
(5) OJ No L 285, 25. 10. 1985, p. 39.
(6) OJ No L 68, 12. 3. 1987, p. 31.

— the apparatus termed 'Fat-O-Meater/Manuel Klassificering' ('FOM/MK') and the assessment method related thereto, details of which are given in Part 2 of the Annex,

— the apparatus termed 'Kød-Spaek-Automatisk' ('KSA') and the assessment method related thereto, details of which are given in Part 3 of the Annex.

However, the use of the KSA-method is only authorized until 30 June 1990.

Article 2

Notwithstanding the standard presentation referred to in Article 2 of Regulation (EEC) No 3220/84, the flare fat, the kidneys and the diaphragm shall be removed from pig carcases before being weighed and graded. In order to establish quotations for pig carcases on a comparable, basis, the recorded hot weight shall be increased by 2,7 %.

Article 3

Modification of the apparatus or of the assessment methods (measurement sites or formulae) shall not be authorized.

Article 4

Decision 87/169/EEC is hereby repealed.

Article 5

This Decision is addressed to the Kingdom of Denmark.

Done at Brussels, 16 March 1989.

For the Commission
Ray MAC SHARRY
Member of the Commission

ANNEX

METHODS FOR GRADING PIG CARCASES IN DENMARK

PART 1

Klassificeringscenter (KC)

1. Grading of pig carcases shall be carried out by means of the apparatus termed 'Klassificeringscenter' ('KC').

2. The apparatus shall be equipped with 17 probes of six millimetres diameter containing each a photodiode (Siemens SFH 950-LD 242 II) and a photodetector (Siemens SFH 960-BP 103) and having an operating distance of between one and 180 millimetres.

   The results of the measurements are converted into estimated lean meat content by means of a central unit.

3. The lean meat content of the carcase shall be calculated on the basis of at least seven measurements taken from 15 measuring-points as are indicated in paragraph 4 and according to one of the 10 formulae below:

$$\hat{y}_1 = 62{,}7967 - 0{,}2420 \times S2 - 0{,}1770 \times S9 - 0{,}1806 \times S11 - 0{,}1915 \times S13 - 0{,}2164 \times S14 - 0{,}1644 \times S16 + 0{,}1080 \times K11 + 0{,}0826 \times V$$

$$\hat{y}_2 = 62{,}2743 - 0{,}1353 \times S3 - 0{,}1716 \times S9 - 0{,}1750 \times S11 - 0{,}2105 \times S13 - 0{,}2104 \times S14 - 0{,}1832 \times S16 + 0{,}1147 \times K11 + 0{,}0825 \times V$$

$$\hat{y}_3 = 63{,}5026 - 0{,}2409 \times S2 - 0{,}2375 \times S7 - 0{,}1609 \times S11 - 0{,}2156 \times S12 - 0{,}2742 \times S14 - 0{,}1001 \times S15 + 0{,}1271 \times K11 + 0{,}0615 \times V$$

$$\hat{y}_4 = 61{,}8765 - 0{,}2622 \times S2 - 0{,}1496 \times S9 - 0{,}1669 \times S11 - 0{,}2109 \times S13 - 0{,}2262 \times S16 + 0{,}1259 \times K11 - 0{,}0837 \times T\ 6 + 0{,}1010 \times V$$

$$\hat{y}_5 = 62{,}8977 - 0{,}1293 \times S3 - 0{,}2390 \times S7 - 0{,}1563 \times S11 - 0{,}1804 \times S12 - 0{,}2288 \times S14 - 0{,}1696 \times S16 + 0{,}1242 \times K11 + 0{,}0678 \times V$$

$$\hat{y}_6 = 61{,}9166 - 0{,}2756 \times S2 - 0{,}1350 \times S9 - 0{,}1677 \times S11 - 0{,}1746 \times S12 - 0{,}2303 \times S16 + 0{,}1348 \times K11 - 0{,}0889 \times T\ 6 + 0{,}0950 \times V$$

$$\hat{y}_7 = 61{,}3336 - 0{,}1514 \times S3 - 0{,}1480 \times S9 - 0{,}1642 \times S11 - 0{,}2324 \times S13 - 0{,}2452 \times S16 + 0{,}1311 \times K11 - 0{,}0744 \times T\ 6 + 0{,}1002 \times V$$

$$\hat{y}_8 = 63{,}4821 - 0{,}2811 \times S2 - 0{,}2463 \times S7 - 0{,}1588 \times S12 - 0{,}2283 \times S13 - 0{,}2766 \times S14 + 0{,}0953 \times K12 - 0{,}0712 \times T\ 8 + 0{,}1142 \times V$$

$$\hat{y}_9 = 60{,}0836 - 0{,}2340 \times S2 - 0{,}1077 \times S3 - 0{,}1973 \times S\ 9 - 0{,}3010 \times S13 - 0{,}2501 \times S16 + 0{,}1024 \times K13 - 0{,}0902 \times T\ 8 + 0{,}1535 \times V$$

$$\hat{y}_{10} = 62{,}5717 - 0{,}1617 \times S3 - 0{,}2846 \times S7 - 0{,}3165 \times S13 - 0{,}2584 \times S14 - 0{,}1219 \times S15 + 0{,}0988 \times K12 - 0{,}0677 \times T\ 8 + 0{,}1195 \times V$$

   where:

   $\hat{y}_1$ until $\hat{y}_{10}$ = the estimated percentage of lean meat in the carcase;

4. The measurement points are:

   S 2 = the thickness of backfat (including rind) in millimetres, measured at the center of 3rd cervical vertebrae, at 10,5 cm off the midline of the carcase.

   S 3 = the thickness of backfat (including rind) in millimetres, measured at the center of 4th cervical vertebrae, at 7 cm off the midline of the carcase.

   S 7 = the thickness of backfat (including rind) in millimetres, measured between 3rd and 4 th hindmost thoracic vertebrae, at 23 cm off the midline of the carcase.

   S 9 = the thickness of backfat (including rind) in millimetres, measured between hindmost and 2nd hindmost thoracic vertebrae, at 21 cm off the midline of the carcase.

   S 11 = the thickness of backfat (including rind) in millimetres, measured between 4th and 5th hindmost thoracic vertebrae, at 3 cm off the midline of the carcase.

   S 12 = the thickness of backfat (including rind) in millimetres, measured between 2nd and 3rd hindmost thoracic vertebrae, at 7 cm off the midline of the carcase.

   S 13 = the thickness of backfat (including rind) in millimetres, measured between 1st lumbar vertebrae and the last thoracic vertebrae, at 6 cm off the midline of the carcase.

   S 14 = the thickness of backfat (including rind) in millimetres, measured 4 cm before the fore edge of the pubic bone, at 7 cm off the midline of the carcase.

   S 15 = the thickness of backfat (including rind) in millimetres, measured 1 cm behind the fore edge of the pubic bone, at 18 cm off the midline of the carcase.

   S 16 = the thickness of backfat (including rind) in millimetres, measured at the fore edge of the pubic bone, at 11 cm from midline of the carcase.

   K 11 = muscle thickness in millimetres, measured between 4th and 5th hindmost thoracic vertebrae, at 3 cm off the midline of the carcase.

   K 12 = muscle thickness in millimetres, measured between 2nd and 3rd hindmost thoracic vertebrae, at 7 cm off the midline of the carcase.

   K 13 = muscle thickness in millimetres, measured between 1st lumbar vertebrae and hindmost thoracic vertebrae, at 6 cm off the midline of the carcase.

   T 6 = total thickness in millimetres, measured between 4th and 5th hindmost thoracic vertebrae, at 19 cm off the midline of the carcase.

   T 8 = total thickness in millimetres, measured between 2nd and 3rd hindmost thoracic vertebrae, at 17 cm off the midline of the carcase.

   V = warm carcase weight in kilograms (excluding flare fat, kidneys and diaphragm).

   The formulae shall be valid for carcases weighing between 50 and 100 kilograms.

PART 2

Fat-O-Meater/Manuel Klassificering (FOM/MK)

1. Grading of pig carcases shall be carried out by means of the apparatus termed 'Fat-O-Meater/Manuel Klassificering' ('FOM/MK').

2. The apparatus shall be equipped with a probe of six millimetres diameter containing a photodiode (Siemens SFH 950-LD 242 II) and a photodetector (Siemens SFH 960-BP 103) and having an operating distance of between one and 94 millimetres.

   The results of the measurements are converted into estimated lean meat content by means of a central unit.

3. The lean meat content of the carcase shall be calculated according to the following formula:

   $\hat{y} = 60{,}7548 - 0{,}3724x_1 - 0{,}3702x_2 + 0{,}1337x_3 + 0{,}0356x_4$,

   where:

   $\hat{y}$ = the estimated percentage of lean meat in the carcase,

   x_1 = the thickness of backfat (including rind) in millimetres, measured at 8 cm off the midline of the carcase, between the third and fourth last lumbar vertebrae,

   x_2 = the thickness of backfat (including rind) in millimetres, measured at 6 cm off the midline of the carcase, between the third and fourth last ribs,

   x_3 = the thickness of muscle in millimetres, measured at the same time and in the same place as x_2,

   x_4 = warm carcase weight in kilograms (excluding the flare fat, the kidneys and the diaphragm).

   The formula shall be valid for carcases weighing between 50 and 100 kilograms.

PART 3

Kød-Spæk-Automatisk (KSA)

1. Grading of pig carcases shall be carried out by means of the apparatus termed 'Kød-Spæk-Automatisk' ('KSA').

2. The apparatus shall be equipped with a probe of 5 millimetres in diameter containing an electro-conductivity metre and having an operating distance of between five and 99 millimetres. The results of the measurements shall be 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:

$$\hat{y} = 55{,}3671 - 0{,}2260x_1 - 0{,}2212x_2 - 0{,}2721x_3 + 0{,}1257x_4 + 0{,}0700x_5$$

where:

$\hat{y}$ = the estimated percentage of lean meat in the carcase,

x_1 = the thickness of backfat (including rind) in millimetres, measured on the midline of the split carcase at its thinnest point covering the lumbar muscle ('M. *glutaeus medius*'),

x_2 = the thickness of backfat (including rind) in millimetres, measured 8 cm off the midline of the split carcase between the third and fourth lumbar vertebrae,

x_3 = the thickness of back (including ring) in millimetres, measured 6 centimetres off the midline of the split carcase between the third and fourth last ribs,

x_4 = the thickness of the muscle in millimetres, measured at the same time and in the same place as x_3.

x_5 = warm carcase weight in kilograms (excluding the flare fat, the kidneys and the diaphragm).

The formula shall be valid for carcases weighing between 50 and 100 kilograms.