## COMMISSION DECISION

# of 5 September 1996

# amending for the second time Decision 92/469/EEC authorizing methods for grading pig carcases in Denmark

(Only the Danish text is authentic)

(96/551/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 carcases (1), as last amended by Regulation (EC) No 3513/93 (2), and in particular Article 5 (2) thereof,

Whereas the Commission, by Decision 92/469/EEC (3), as amended by Decision 94/564/EC (4), has authorized different methods for grading pig carcases in Denmark;

Whereas the Danish Government has requested the Commission to authorize the use of two new methods for grading pig carcases and the use of new formulae for calculating the lean meat content of carcases under the existing grading methods 'KC' and 'FOM/MK'; whereas the information required pursuant to 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) has been submitted; whereas evaluation of the request has shown the conditions for authorizing the said methods of grading and the new formulae to be fulfilled;

Whereas the grading method 'Ultra-FOM' is no longer used in Denmark and it is therefore justified to revoke the authorization for this grading method;

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

Decision 92/469/EEC is hereby amended as follows:

1. Article 1 is replaced by the following text:

'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,
- 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 "Uni-Fat-O-Meater" (Uniform) and the assessment method related thereto, details of which are given in Part 3 of the Annex,
- the apparatus termed "Fully automatic ultrasonic carcase grading" (Autofom) and the assessment method related hereto, details of which are given in Part 4 of the Annex.'
- 2. Part 1 of the Annex is amended as follows:
  - (a) The formula under point 3 (a) is replaced by the following:

$$\dot{\hat{y}} = 62,941 - 0,1706 x_1 - 0,0818 x_2 - 0,1645 x_3 - 0,1964 x_4 - 0,1005 x_5 - 0,2553 x_6 - 0,1813 x_7 + 0,0853 x_8 + 0,0452 x_9 + 0,0513 x_{10} + 0,0427 x_{11}$$

- (b) In the last phrase of point 4, '100 kg' is replaced by '110 kg'.
- 3. Part 2 of the Annex is amended as follows:
  - (a) The formula under point 3 (a) is replaced by the following:

$$\hat{y} = 65,29152 - 0,2106379 x_1 - 0,61076 x_2 + 0,1128888 x_3 + 0,02276837 x_4$$

- (b) In the last phrase of point 3, '100 kg' is replaced by '110 kg'.
- 4. Part 3 of the Annex is replaced by the text given in the Annex to this Decision.
- 5. Part 4 given in the Annex to this Decision is added to the Annex.

OJ No L 301, 20. 11. 1984, p. 1.

<sup>(2)</sup> OJ No L 320, 22. 12. 1993, p. 5. (3) OJ No L 265, 11. 9. 1992, p. 39. (4) OJ No L 215, 20. 8. 1994, p. 25. (5) OJ No L 285, 25. 10. 1985, p. 39.

# Article 2

This Decision is addressed to the Kingdom of Denmark.

Done at Brussels, 5 September 1996.

For the Commission
Franz FISCHLER
Member of the Commission

#### **ANNEX**

#### 'PART 3

## Uni-Fat-O-Meater (UNIFOM)

- Grading of pig carcases shall be carried out by means of the apparatus termed "Uni-Fat-O-Meater" (Uniform).
- 2. The apparatus is the same as the apparatus described under point 2 of Part 2. However, Uniform differs from FOM/MK with regard to computer and software for the interpretation of the reflection profile from the optical probe. Furthermore, Uniform is not connected with the weighing instrument, so that the slaughter weight can be included directly in the calculation of the lean meat percentage.
- 3. The lean meat content of the carcase shall be calculated according to the following formula:
  - $\hat{y} = 67,520066 0,1240656 x_1 0,8717984 x_2 + 0,1088299 x_3$  where:
  - $\hat{y}$  = the estimated percentage of lean meat in the carcase,
  - x<sub>1</sub> = the thickness of backfat (') in millimetres, measured at 8 cm off the midline of the carcase, between the third and fourth last lumbar vertebrae,
  - x<sub>2</sub> = the thickness of backfat (') 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  $x_2$ .

The formula shall be valid for carcases weighing between 50 and 110 kg.

#### 'PART 4

# Fully automatic ultrasonic carcase grading (Autofom)

- Grading of pig carcases shall be carried out by means of the apparatus "Fully automatic ultrasonic carcase grading" (Autofom).
- The apparatus shall be equipped with 16 ultrasonic transducers, 2MHz (Krautkrämer, SFK 2 NP) with an operating of 25 mm between each tansducer.

The ultrasonic data cover three major parts of the carcase and comprise three fat thicknesses and one muscle depth. The remaining parameters are related to the above parameters.

The results of the measurements are converted into estimated lean mean content by means of a central data-processing unit.

3. The lean meat content of the carcase shall be calculated on the basis of 127 individual measuring points according to the following formula:

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\hat{y} = 59,24000168 - 0,030622402 x_1 - 0,0559959 x_2 - 0,025685901 x_3 - 0,0115708 x_4 - 0,0364976 x_5
      - 0,019477801 x<sub>6</sub>
                            -0.0157021 x_7 -0.028626302 x_8
                                                                                          -0.012896401 x_{10}
                                                                     -0,0132835 x_9
                                                                      -0,048098601 x_{14}
                             -0,00185023 x_{12} -0,0136233 x_{13}
                                                                                            -0,0204149 x_{15}
      -0,026035002 x_{11}
                                                  -0.020299699 x_{18}
                                                                       -0,0206571 x_{19}
                           -0,041277599 x_{17}
                                                                                             -0,040948 x_{20}
      -0,0178324 x_{16}
       -0,014101701 x_{21}
                            -0,0245975 x_{22}
                                                -0,048922502 x_{23}
                                                                     -0.018260401 x_{24}
                                                                                            + 0,0050389 x_{25}
                          + 0,0022657 x_{27}
      + 0,0103042 x_{26}
                                               + 0,00243124 x_{28}
                                                                   + 0,008291731 x_{29}
                                                                                           + 0,00578348 x_{30}
      -0,0017511 x_{31}
                                                                                           + 0,00469745 x_{35}
                          + 0,00803249 x_{32}
                                              -0,000173431 x_{33}
                                                                     -0,00513116 x_{34}
      + 0,000372995 x_{36} - 0,00014972 x_{37}
                                                -0,00113224 x_{38} + 0,000434787 x_{39}
                                                                                           + 0,00121559 x_{40}
                            -0,00203788 x_{42}
                                                                      -0,0197071 x_{44}
                                                  + 0,25331402 x_{43}
                                                                                            + 0,0249134 x_{45}
      -0,00312394 x_{41}
      +\ 0.0494201\ x_{46}\ +\ 0.00279633\ x_{47}\ +\ 0.053343497\ x_{48}\ +\ 0.022081601\ x_{49}\ +\ 0.051484603\ x_{50}
      + 0.039685801 x_{51} - 0.00879017 x_{52}
                                                 -0,00845072 x_{53} -0,00725005 x_{54}
                                                                                            -0,0103406 x_{55}
        -0,021988701 \, x_{56} \, -0,025504801 \, x_{57} \, -0,026593 \, x_{58} \, -0,067017801 \, x_{59} \, -0,068600304 \, x_{60}
      -\ 0.062353503\ x_{61}\ -\ 0.049126402\ x_{62}\ -\ 0.070018396\ x_{63}\ -\ 0.076502904\ x_{64}\ -\ 0.071316704\ x_{65}
                                             -0,000348352 x_{68} + 0,015280101 x_{69}
      -0.0104453 x_{66} -0.0116967 x_{67}
                                                                                          -0,00395203 x_{70}
      -\ 0.026739201\ x_{7_{1}}\ -\ 0.035513401\ x_{7_{2}}\ -\ 0.00254834\ x_{7_{3}}\ -\ 0.00432901\ x_{7_{4}}\ -\ 0.0049929\ x_{7_{5}}
      -0.00576441 x_{76} -0.00676548 x_{77} -0.00772101 x_{78} -0.042503901 x_{79} -0.048328102 x_{80}
      -0,055129498 \ x_{81} \ -0,059772301 \ x_{82} \ -0,0645658 \ \dot{x}_{83} \ -0,067458406 \ x_{84} \ +0,016674001 \ x_{85}
                           + 0,013334701 x_{87}
                                                  + 0,010916 x_{88}
                                                                   + 0,00617342 x_{89}
                                                                                          + 0,00379121 x_{90}
      + 0,0148772 x_{86}
        0,034854501 x_{91} - 0,075036302 x_{92} - 0,0275991 x_{93} + 0,000509895 x_{94}
                                                                                         -0,000547192 x_{95}
      -0,00133919 x_{96} + 0,000919671 x_{97}
                                                -0,000180694 x_{98} -0,00297095 x_{99} -0,001185 x_{100}
      -0,000435302\,x_{111} + 0,000315525\,x_{112} + 0,00126716\,x_{113} + 0,00265209\,x_{114} + 0,0147121\,x_{115}
      +\ 0.0239079\ x_{116}\ +\ 0.025629202\ x_{117}\ +\ 0.0204865\ x_{118}\ +\ 0.019831302\ x_{119}\ +\ 0.0182009\ x_{120}
      + 0.015869601 x_{121} + 0.0250687 x_{122} + 0.025464201 x_{123} + 0.025771502 x_{124} + 0.020633401 x_{125}
      + 0.020213 x_{126} + 0.0225557 x_{127}
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where:

- $\hat{\boldsymbol{y}}$  = the estimated percentage of lean meat in the carcase.
- 4. The description of the measurement points and the description of the statistical method are laid down in the Danish Protocol, Part II, submitted to the Commission under the terms of Article 3 (3) of Commission Regulation (EEC) No 2967/85.

The formula shall be valid for carcases weighing between 50 and 110 kg.'