Commission Decision of 15 April 2004 authorising methods for grading pig carcases in the United Kingdom (notified under document number C(2004) 1340) (Only the English text is authentic) (2004/370/EC)

ANNEX II

METHODS FOR GRADING PIG CARCASES IN NORTHERN IRELAND

PART 1

Intrascope (Optical Probe)

- 1. Grading of pig carcases shall be carried out by means of the apparatus termed 'Intrascope (Optical Probe)'.
- 2. The apparatus shall be equipped with a hexagonal shaped probe of a maximum width of 12 millimetres (and of 19 millimetres at the blade at the top of the probe) containing a viewing window and a light source, a sliding barrel calibrated in millimetres and having an operating distance of between 3 and 45 millimetres.
- [F13. The lean meat content of the carcase shall be calculated according to the following formula:

$$\hat{y} = 71.4802 - 0.83659 \text{ x}$$

where:

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

x = the thickness of the backfat (including rind) in millimetres measured at 6 centimetres off the midline of the carcase at the last rib (known as 'P2')

The formula shall be valid for carcases weighing between 50 and 140 kilograms.]

Textual Amendments

F1 Substituted by Commission Decision of 3 February 2006 amending Decision 2004/370/EC authorising methods for grading pig carcases in the United Kingdom (notified under document number C(2006) 213) (Only the English text is authentic) (2006/99/EC).

PART 2

Mark II Ulster Probe

- 1. Grading of pig carcases shall be carried out by means of the apparatus termed 'Mark II Ulster Probe'.
- 2. The apparatus shall be equipped with an oval-shaped probe of a maximum width of 11 millimetres containing an infra-red light-emitting photodiode (TFK type TS-US 5402) with a peak wave-length frequency of 950 nm and a matching infra-red photodetector (TRW Optron type OP 500) and having an operating distance of between 0 and 50 millimetres. The results of the measurements shall be converted into estimated lean mean content by means of a computer.
- [F13. The lean meat content of the carcase shall be calculated according to the following formula:

$$\hat{y} = 71,4384 - 0.84119 \text{ x}$$

where:

ŷ = the estimated lean meat percentage in the carcase,

x = the thickness of the backfat (including rind) in millimetres measured at 6 centimetres off the midline of the carcase at the last rib (known as 'P2')

The formula shall be valid for carcases weighing between 50 and 140 kilograms.

[F1PART 3

Hennessy Grading Probe (HGP 4)

- 1. Grading of pig carcases shall be carried out by means of the apparatus termed 'Hennessy Grading Probe (HGP 4)'.
- 2. The apparatus shall be equipped with a probe of 5,95 millimetres diameter (and of 6,3 millimetres at the blade of the top of the probe) containing a photodiode (Siemens LED of the type LYU 260-EO and photodetector of the type 58 MR) and having an operating distance of between 0 and 120 millimetres. The results of the measurements shall be converted into estimated lean meat content by means of the HGP 4 itself or a computer linked to it.
- 3. The lean meat content of the carcase shall be calculated according to the following formula:

$$\hat{y} = 71,5278 - 0,86638 \text{ x}$$

where:

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

x = the thickness of the backfat (including rind) in millimetres measured at 6 centimetres off the midline of the carcase at the last rib (known as 'P2')

The formula shall be valid for carcases weighing between 50 and 140 kilograms.]

[F2PART 4

Fully automatic ultrasonic carcass grading (Autofom)

- 1. Pig carcase grading shall be carried out using the apparatus termed Autofom (Fully automatic ultrasonic carcass grading).
- 2. The apparatus shall be equipped with 16 16,2 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 carcase's lean meat content shall be calculated on the basis of 127 measurement points using the following formula:

$$\hat{\mathbf{y}} = \mathbf{b}_0 + i\mathbf{p}_1\mathbf{b}_1 + i\mathbf{p}_2\mathbf{b}_2 + i\mathbf{p}_3\mathbf{b}_3 + \dots i\mathbf{p}_{127}\mathbf{b}_{127}.$$

where:

= the estimated lean meat content of the carcase, ŷ

= Input parameters of Autofom image analysis ip_1-ip_{127}

 $b_0 - b_{127}$ = Constants from the model calibration

The 127 *b*-coefficients are, in order *IP1-IP127*:

- -1,6866978E-002
- -2,7395384E-002
- -1,9907279E-002
- -8,5862307E-003
- -1,7233329E-002
- -1,2928455E-002
- -7,2069578E-003
- 0,0000000E+000
- 0,0000000E+000
- 9,9210571E-003
- -2,7280254E-002
- -1,1866679E-002
- -1,6877903E-002
- -3,3714309E-002
- -2,2873893E-002
- -1,2976709E-002
- 1,9736953E-002
- 0,0000000E+000
- -1,0441692E-002
- -2,6023159E-002
- -1,6019909E-002
- -1,2085976E-002
- -2,0802582E-002
- 1,2004912E-002
- 4,9544591E-003
- 2,1012272E-003
- 3,5626963E-003
- 5,4210355E-003
- 2,8231265E-003
- 0,0000000E+000
- 3,4462682E-003
- 4,9613826E-003
- 3,1486694E-003
- 0,0000000E+000
- 3,3405393E-003
- 0,0000000E+000
- 0,0000000E+000
- 1,0592665E-003
- 0,0000000E+000

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Changes to legislation: There are currently no known outstanding effects for the Commission Decision of 15 April 2004 authorising methods for grading pig carcases in the United Kingdom (notified under document number C(2004) 1340) (Only the English text is authentic) (2004/370/EC), ANNEX II. (See end of Document for details)

- 0,0000000E+000
- 2,3835478E-003
- 0,0000000E+000
- -2,3957171E-002
- -1,6251475E-002
- 0,0000000E+000
- -2,1446949E-002
- 0,0000000E+000
- -2,4741126E-002
- -2,2376098E-002
- -1,6962735E-002
- -2,8594572E-002
- 1,9001560E-002
- -2,7471537E-002
- -3,2565221E-002
- -3,1170983E-002
- 2,9708274E-002
- 2 7202220F 002
- -2,7283320E-002
- -2,5577871E-002
- -3,2280222E-002
- -3,1662315E-002
- -3,3039205E-002
- -3,2290529E-002
- -3,0902216E-002
- 2,9116826E-002
- -2,5646536E-002
- -2,3514079E-002
- -2,7472775E-002
- -2,6122212E-002
- -2,3694078E-002
- -2,7969513E-002
- -2,8660055E-002
- 2,8413385E-002 - 3,2624107E-002
- -3,2517981E-002
- -3,1576648E-002
- -3,1543616E-002
- -3,1162977E-002
- -3,0734278E-002
- -3,4127805E-002
- -3,4164313E-002
- -3,4327772E-002
- -3,4017213E-002
- -3,3313580E-002
- -3,3459395E-002

- -2,4075206E-002
- -2,5336761E-002
- -2,6048595E-002
- -2,6499119E-002
- -2,6947299E-002
- -2,7433341E-002
- -3,1328205E-002
- -3,1818397E-002
- -2,7329659E-002
- 6,0837399E-003
- 6,8703182E-003
- 7,7951970E-003
- 8,3265398E-003
- 7,6311678E-003
- 6,6542262E-003
- 5,8027613E-003
- 8,4376512E-003
- 8,3114961E-003
- 8,2320096E-003
- 8,0569442E-003
- 7,7763004E-003
- 7,6648975E-003
- 7,3420489E-003
- 7,2652618E-003
- 7,1755257E-003
- 7,1458751E-003
- 7,1670651E-003
- 6,9467919E-003
- 7,0396927E-003
- 7,2869365E-003
- 5,7384889E-003
- 7,6241307E-003
- 7,3343012E-003
- 6,9868541E-003
- 6,6073379E-003
- 6,9390922E-003
- 6,3295597E-003
- 6,0446505E-003
- 1,0994689E-002
- 9,2938738E-003
- 4,4189114E-003
- 4,3836362E-003
- 4,6389205E-003

The b_0 -coefficient is 6,3457577E+001

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

The formula shall be valid for carcases weighing between 50 and 140 kilograms.]

Textual Amendments

F2 Inserted by Commission Decision of 3 February 2006 amending Decision 2004/370/EC authorising methods for grading pig carcases in the United Kingdom (notified under document number C(2006) 213) (Only the English text is authentic) (2006/99/EC).

Changes to legislation:

There are currently no known outstanding effects for the Commission Decision of 15 April 2004 authorising methods for grading pig carcases in the United Kingdom (notified under document number C(2004) 1340) (Only the English text is authentic) (2004/370/EC), ANNEX II.