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DEPARTMENT OF AGRICULTURE, FORESTRY AND FISHERIES**NO. R. 471****22 APRIL 2016**

AGRICULTURAL PRODUCT STANDARDS ACT, 1990 (ACT No. 119 OF 1990)

REGULATIONS REGARDING CONTROL OVER THE SALE OF POULTRY MEAT: AMENDMENT

The Minister of Agriculture, Forestry and Fisheries, acting under section 15 of the Agricultural Product Standards Act, 1990 (Act No. 119 of 1990), made the regulations in the Schedule.

SCHEDULE**Definitions**

1. In this Schedule "**the Regulations**" means the regulations published by Government Notice No. R. 946 of 27 March 1992, as amended by Government Notice No. R. 988 of 25 July 1997.

Amendment of regulation 1 of the Regulations

2. Regulation 1 of the Regulations is hereby amended by --

(a) the insertion, after the definition of "absorbed moisture", of the following definitions:

'**brine**' means a brine solution as defined in the regulations published under the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972);

'**brine based mixture**' means a brine solution to which only permitted phosphate salts and permitted food additives may have been added and which is used for, amongst others, tenderizing, flavouring and preserving of poultry meat;";

(b) the substitution of the definition of "food additive" of the following definition:

"'**food additive**' means a supplement or any other substance as permitted for in the regulations published under the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972), which may be added to a foodstuff to effect its keeping quality, consistency, colour, taste, flavour, smell or other technical property (these substances include but is not limited to acids, bases, salts, preservatives, antioxidants, anti-caking agents, colourants, flavourings, emulsifiers, stabilisers and thickeners);";

(c) the insertion, after the definition of "food additive", of the following definitions:

"'**foodstuff**' means a foodstuff as defined by the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972);

'**formulated solution**' means brine, brine based mixture, marinade, phosphate solution or any other similar solution/mixture to which food additives and/or foodstuffs may have been added;

'**fresh**', where used with regard to poultry meat, means poultry meat in its raw, unfrozen state, including meat which is vacuum-wrapped or wrapped in a controlled atmosphere, which --

(a) has not previously been frozen or undergone any heat treatment; and

(b) has not been subjected to any form of preservation other than chilling;";

- (d) the insertion, after the definition of “frozen”, of the following definition:
- “**further processing**” means poultry meat which is subjected to any process(es) that alters the poultry meat in such a way that it is not recognizable as a carcass, portion, piece or strip anymore;”;
- (e) the substitution of the definition of “inspection lot” of the following definition:
- “**inspection lot**’ where used, with regard to Regulation 14, means at least five eviscerated carcasses or portions representing at least five eviscerated carcasses or, in the case where the portions are not representative of carcasses, a representative sample of portions equal to the weight of at least five eviscerated carcasses: Provided that the carcasses or units representing the carcasses are treated as separate units in the inspection lot;”;
- (f) the insertion, after the definition of “intestines”, of the following definitions:
- “**main panel**’ means that part of the label or container bearing the trademark or trade name in greatest prominence and any other part of the label or container bearing the trademark or trade name in equal prominence;
- ‘**marinade**’ means a sweet, savoury or acidic, brine based sauce with foodstuffs and/or food additives in which poultry meat is marinated only to enhance its flavour and/or tenderness”;;
- (g) the insertion, after the definition of “packer”, of the following definition:
- “**permitted**’ means permitted under the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972);”;
- (h) the substitution for the definition of “poultry meat” of the following definition:
- “**poultry meat**’ means the slaughtered and sometimes deboned carcasses of *Gallus domesticus* (fowls), *Meleagus gallopavo* (turkeys) and *Anas* (ducks and muscovies) as well as any portions or parts of such carcasses which are usually sold for human consumption, whether as such or in cut form and which is still recognizable as a carcass, portion, piece or strip and includes raw processed poultry meat;”;
- (i) the insertion, after the definition of “production lot”, of the following definitions:
- “**prohibited articles**’ means prohibited articles as defined in the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972);
- ‘**QUID (‘Quantitative Ingredient Declarations’)**’ means the calculation of the % absorbed moisture or the % treatment with a formulated solution using the formula ((declarable weight of ingoing ingredient/weight of finished product) x 100);
- ‘**raw processed poultry meat**’ means poultry meat which has been treated with a formulated solution, has not undergone any heat treatment and is still recognizable as a poultry carcass, portion, piece or strip;
- ‘**spices**’ means natural dried components or mixtures of spices and aromatic plants used in foodstuffs for flavouring, seasoning and imparting aroma, and includes the whole, broken or ground form, which may either be rubbed on or added to raw poultry meat;” and
- (j) the insertion, after the definition of “trade mark”, of the following definition:

“**treatment**” or “**treated**” means the process whereby a formulated solution is added to raw poultry meat at the plant by means of but not limited to injection (pumping), tumbling, massaging and marinating, which is --

- (a) retained in the poultry meat up till the point of sale and will lead to an increase in its moisture content; and
- (b) , amongst others, intended to improve the eating quality (juiciness, flavour and tenderness) of the poultry meat:

Provided that water on its own or marinade shall not be injected;”.

Amendment of regulation 2 of the Regulations

3. Regulation 2 of the Regulations is hereby amended by --

- (a) the deletion of the word “and” at the end of paragraph (1)(d);
- (b) the insertion of the wording “; and” at the end of paragraph (1)(e);
- (c) the insertion of the following paragraph after paragraph (1)(e):

“(f) the poultry meat is free from any added plant protein (excluding coated poultry meat), any other source of meat protein or any prohibited articles.”; and

- (d) the substitution for subregulation (2) of the following subregulation:

“(2) Poultry meat which is intended for further processing or for use in the manufacturing or preparation of another foodstuff which is not recognisable as a whole carcass, portion, piece or strip, is excluded from the restrictions referred to in subregulation (1).”.

Amendment of regulation 4 of the Regulations

4. Regulation 4 of the Regulations is hereby amended by --

- (a) the substitution of the heading “**Standards for grades**” with the wording “**Standards for carcasses**”;
- (b) the substitution for subregulation (2) of the following subregulation:

“(2) A poultry carcass than has been graded as Grade A or Grade B shall, subject to the provisions of subregulations (1), (4) and (8) of regulation 14, contain not more than 7% (QUID) of absorbed moisture, and may then be treated with a formulated solution.”;

- (c) the substitution for paragraph (3)(a) of the following paragraph:

“(a) be cut into portions, pieces or strips or subjected to further processing; or”; and

- (d) the substitution for subregulation (9) of the following subregulation:

“(9) (a) In the case of a Grade A or Grade B carcass which is treated with a formulated solution, the mass increase of the carcass as a result of such treatment shall not be exceed 10% (QUID): Provided that --

- (i) , subject to the provisions of subregulation (2), the combined percentage of the absorbed moisture and formulated solution shall not exceed 10% (QUID); and

- (ii) the concentration of the phosphate and food additives in the formulated solution in the final treated poultry meat shall be within the permissible levels prescribed by the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972).
- (b) Records of absorbed moisture after water chilling and mass increase after treatment with a formulated solution shall be kept for a period of at least one year.
- (c) A carcass that does not comply with the requirements of subregulation (9)(a)(i) shall be cut into portions, pieces or strips or be subjected to further processing.”.

Amendment of regulation 5 of the Regulations

5. Regulation 5 of the Regulations is hereby amended by insertion of the following subregulation after subregulation (3):

- “(4) (a) Poultry portions may contain food additives in the amounts permissible in terms of the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972).
- (b) In the case of individual portions which is treated with a formulated solution, the mass increase of the individual portions as a result of such treatment shall not exceed 15% (QUID): Provided that –
- (i) , subject to the provisions of regulation 4(2), the combined percentage of the absorbed moisture and formulated solution shall not exceed 15% (QUID); and
 - (ii) the concentration of the phosphate and food additives in the formulated solution in the final treated poultry meat shall be within the permissible levels prescribed by the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972).
- (c) The provisions in paragraphs (a) and (b) above shall not be permitted on poultry meat which has already been subjected to a treatment referred to in regulation 4(9)(a).
- (d) Records of absorbed moisture after water chilling and mass increase after treatment with a formulated solution shall be kept for a period of at least one year.
- (e) Portions that do not comply with the requirements of subregulation (4)(b)(i) shall be supplied to the catering industry where the poultry meat is sold in the cooked form or be subjected to further processing.”.

Amendment of regulation 8 of the Regulations

6. Regulation 8 of the Regulations is hereby amended by --

- (a) the substitution for paragraph (1)(k) of the following paragraph:
- “(k) (i) In the case of raw processed poultry meat, the applicable class designation or alternative class designation shall either be preceded or followed by the generic name of the added formulated solution, or by any other wording reflecting a true description of the added formulated solution. [E.g. ‘chicken with brine’, ‘sweet ‘n sour marinated chicken drumsticks’, etc.]

- (ii) In the case of spiced poultry meat, the applicable class designation or alternative class designation shall either be preceded or followed by the generic name(s) of the added spice(s), or by any other wording reflecting a true description of the added spice(s). [E.g. 'lemon and herb chicken', 'chicken breasts with pepper & rosemary', etc.]".

Amendment of regulation 14 of the Regulations

7. Regulation 14 of the Regulations is hereby amended by the substitution for regulation 14 of the following regulation:

"Methods and procedures regarding absorbed moisture and carcasses and portions treated with a formulated solution"

14. (1) The amount of absorbed moisture of an inspection lot of water chilled carcasses as well as carcasses and portions treated with a formulated solution, shall be determined in accordance with Method A in the Annexure.

(2) For carcasses chilled with water as well as carcasses and portions treated with a formulated solution, the tests for absorbed moisture and formulated solution uptake shall be carried out with commencement of a work shift in a poultry abattoir and thereafter be repeated at least once every hour.

(3) The % average absorbed moisture of an inspection lot for water chilled carcasses shall not exceed the limit referred to in subregulation 4(2).

(4) If the limit referred to in subregulation 4(2) are exceeded, all carcasses in the "water spin chiller" shall be cut up into portions until such time as a further test produces results that are within the limit.

(5) The % average absorbed moisture and % formulated solution uptake of an inspection lot shall not exceed the limits referred to in subregulations 4(9)(a) and 5(4)(b): Provided that the following maximum permissible deviations shall be applicable --

- (a) carcasses - 1% (QUID); and
(b) portions - 2.5% (QUID).

(6) If the maximum permissible deviations referred to in subregulation 14(5) are exceeded the necessary adjustments shall be made immediately and a further test shall be carried out forthwith, and the records shall reflect this adjustment.

(7) The results of all tests shall be recorded and kept for at least one year.

(8) An indication of the % of absorbed moisture of an inspection lot of frozen or deep frozen water chilled poultry carcasses can be obtained in accordance with Method B in the Annexure.

(9) Method C in the Annexure may be used to get an indication of the % of absorbed moisture and formulated solution uptake of an inspection lot of frozen or deep frozen poultry cuts."

Amendment of the Annexure to the Regulations

8. The Annexure to the Regulations is hereby amended by the substitution for the Annexure of the following Annexure:

“ANNEXURE**1. METHOD A****METHOD FOR THE DETERMINATION OF THE % ABSORBED MOISTURE IN WATER CHILLED POULTRY CARCASSES AND THE % FORMULATED SOLUTION UPTAKE OF POULTRY CARCASSES AND PORTIONS:**

[Reg. 14(1)]

- (a) In the case of water chilling of carcasses, carcasses treated with a formulated solution and portions treated with a formulated solution: Identify and determine the mass to the nearest one gram of each unit of the inspection lot which have been taken from the production time immediately prior to the water chilling or treatment process. This represents the initial mass (I).
- (b) Place the identified carcasses or units of portions back onto the production line at the same point.
- (c) (i) In the case of water chilling of carcasses: After the carcasses have been chilled and drained, at the furthest point away from the chiller just before the next processing step, whether it is treatment or packaging, etc., the mass of each of the recovered carcasses is again determined to the nearest one gram. This represents the final mass (F).
- (ii) In the case of carcasses treated with a formulated solution: After the carcasses have been treated, at the furthest point away from the treatment equipment just before packaging and freezing, the mass of each of the recovered carcasses is again determined to the nearest one gram. This represents the final mass (F).
- (iii) In the case of portions treated with a formulated solution: After the portions have been treated, at the furthest point away from the treatment equipment just after freezing and before packaging, the mass of each of the recovered units of portions is again determined to the nearest one gram. This represents the final mass (F).
- (d) Carcasses and units with obvious water/formulated solution pockets may be ignored: Provided that the inspection lot requirements shall be adhered to.
- (e) Determine the % absorbed moisture/formulated solution uptake of each carcass or unit of portions by means of the following formula:

$$\frac{(F - I) \times 100}{F} = \% \text{ absorbed moisture/formulated solution (QUID)}$$

- (f) Calculate the average % absorbed moisture/formulated solution uptake of the inspection lot.

2. METHOD B**METHOD FOR THE DETERMINATION OF THE % ABSORBED MOISTURE IN FROZEN AND DEEP FROZEN WATER CHILLED POULTRY CARCASSES:**

[Reg. 14(8)]

- (a) *Objective and scope*

This method shall be used to determine the amount of moisture loss from recently frozen and deep frozen poultry carcasses during thawing. If this drip loss, expressed as a percentage by weight of the carcass (including all the edible offal contained in the pack), exceeds the limit value laid down in paragraph (g), it is an indication that excess moisture has been absorbed during cooling.

The technique shall not be applicable to poultry which has been treated with a formulated solution or similar substances in order to increase moisture retention.

(b) *Definition*

Drip loss determined by this method shall be expressed as a percentage of the total mass of the frozen or deep frozen carcass, including edible offal.

(c) *Principle*

The frozen or deep frozen carcass, including edible offal present, shall be allowed to thaw under controlled conditions which allow the mass loss resulting from water loss to be calculated.

(d) *Apparatus*

- (i) A scale with a weighing capacity of up to 5 kg and with an accuracy of one gram.
- (ii) Plastic bags large enough to hold a carcass and with a proper means of closing, but shall not be unduly large.
- (iii) A thermostatically controlled waterbath that --
 - (aa) can contain a volume of water not less than eight times the volume of the poultry carcass to be tested; and
 - (bb) can maintain water at a temperature at 42°C.
- (iv) Filter paper or other absorbent paper towels.

(e) *Method*

- (i) Seven carcasses shall be removed at random from the quantity of poultry to be tested. The carcasses shall be kept at a temperature not higher than -12°C, until each carcass can be tested as described in subparagraphs (ii) to (xii) below.
- (ii) The outside of the pack shall be wiped to remove superficial water and ice. The mass of the pack and the contents thereof shall be determined to the nearest gram. This mass shall be expressed as M_0 .
- (iii) The carcass, as well as any edible offal sold with it, shall be removed from the outer wrap. The wrap shall be dried and the mass shall be determined to the nearest gram. This mass shall be expressed as M_1 .
- (iv) The mass of the frozen carcass plus offal shall be calculated by subtracting M_1 from M_0 .
- (v) The carcass, including the offal, shall be placed in a strong waterproof plastic bag with the abdominal cavity facing towards the closed end of the bag. When the carcass and the offal are placed in the bag, as much air as possible shall be removed from the bag by compression and it must then be fastened properly.
- (vi) The bag containing the carcass and edible offal shall be immersed in a bath of water at 42°C up to the closed end of the bag and shall be positioned in

such a way that the water in the bath cannot flow into the bag. It may be held in position by means of weights if necessary.

- (vii) The bag shall be left in the bath of water until the thermal centre of the poultry carcass reaches $\pm 4^{\circ}\text{C}$. As an indication in the case of poultry at -12°C , the period of immersion during which the temperature of the water shall be maintained at 42°C , would be as follows:

Mass of carcass and offal	Time in minutes
Less than 800 g	65
801 - 900 g	72
901 - 1 000 g	78
1 001 - 1 100 g	85
1 101 - 1 200 g	91
1 201 - 1 300 g	98
1 301 - 1 400 g	105

- (viii) The period of immersion referred to in subparagraph (vii) shall be increased by seven minutes for each additional 100 g or part thereof.
- (ix) The bag and the contents thereof shall be removed from the bath of water. The bottom of the bag shall be pierced in order to allow water inside the bag to drain. The bag and the contents thereof shall be allowed to drip for one hour at an ambient temperature of between 18°C and 25°C .
- (x) The thawed carcass shall be removed from the bag and the pack that contains offal (if present) shall be removed from the abdominal cavity. The inside and outside of the carcass shall be dried with filter paper or paper towels. The pack that contains the offal shall be pierced and, once any liquid has drained away, the bag and thawed offal shall be dried as carefully as possible.
- (xi) The total mass of the thawed carcass, offal and pack shall be determined to the nearest gram and shall be expressed as M_2 .
- (xii) The mass of the pack which contained the offal shall be determined to the nearest gram and shall be expressed as M_3 .

(f) *Calculation of result*

The amount of water lost through thawing expressed as a percentage by weight of the frozen or deep frozen carcass (including offal) shall be determined by means of the following formula:

$$\frac{M_0 - M_1 - M_2}{M_0 - M_1 - M_3} \times 100$$

(g) *Evaluation of result*

If the average moisture loss on thawing for the inspection lot exceeds 7.0% of the average mass of the frozen or deep frozen poultry carcasses, it is an indication that the amount of moisture absorbed during processing exceeds the limit.

3. METHOD C

METHOD FOR THE DETERMINATION OF MOISTURE UPTAKE (ABSORBED MOISTURE AND/OR FORMULATED SOLUTION) IN FROZEN AND DEEP FROZEN POULTRY PORTIONS:

[Reg. 14(9)]

(a) *Objective and scope*

This method is used to determine the total added water content of certain poultry cuts (breasts, thighs and drumsticks). The method shall involve determination of the water and protein contents of samples from the homogenised poultry cuts. The water-protein ratio is then calculated as per paragraph (f)(i) and (ii) for the specific portions, to determine whether or not excess water has been taken up during processing (water chilling and other methods of water uptake such as injection, marinating, etc.).

The technique shall be applicable to poultry which has been subjected to processes that may have lead to water uptake during processing such as water used for chilling the carcasses and/or treatment of the carcasses and cuts with any solution that contains water (such as but not limited to injection, tumbling, marinating, etc.).

(b) *Definition*

Moisture content shall be expressed as a percentage of the total mass of the frozen or deep frozen portions (breasts, thighs or drumsticks).

(c) *Principle*

Water and protein contents are determined in accordance with the latest AOAC or other internationally accepted methods of analysis, the water-protein ratio is calculated and the value obtained is compared with the values in paragraph (g), indicating 15% moisture uptake for the poultry cuts concerned.

(d) *Apparatus*

- (i) A scale with a weighing capacity of up to 5 kg and with an accuracy of one gram.
- (ii) Heavy-duty bowl cutter with sufficient power to chop and blend frozen or deep-frozen meat and bones to produce a homogeneous mixture.
- (iii) Apparatus as specified in the latest AOAC or other internationally accepted method for the determination of water content.
- (iv) Apparatus as specified in the latest AOAC or other internationally accepted method for the determination of protein content.

(e) *Method and sampling*

- (i) Breasts, thighs or drumsticks are taken at random from the quantity of poultry cuts to be checked and kept frozen. In the case of frozen or deep-frozen bulk products (cuts not individually packed) the large packs from which samples are to be taken may be kept at 0°C until individual cuts can be removed. The analysis may concern the cuts separately or a composite sample of the cuts, depending on the capacity of the bowl cutter to produce a homogenous mixture.

- (ii) The preparation must commence immediately after the removal of the cuts from the freezer.
 - (iii) The cuts are removed from all wrapping material and the weight of the poultry cut is determined to the nearest gram. In the case of a composite sample analysis the total weight of the cuts is determined
 - (iv) The whole cuts are chopped in a bowl cutter to obtain a homogeneous mixture from which a sample representative of each cut may then be taken. In the case of a composite sample analysis, all cuts are chopped in a bowl cutter to obtain a homogeneous mixture from which two samples representative of the cuts may then be taken.
 - (v) A sample of the homogenised mixture is taken and used immediately to determine the water content in accordance with the latest AOAC or other internationally accepted method.
 - (vi) A sample of the homogenised mixture is taken and used immediately to determine the nitrogen content in accordance with the latest AOAC or other internationally accepted method. This nitrogen content is converted to crude protein content by multiplying it by the factor 6.25.
- (f) *Calculation of result*
- (i) Ensure that the weight of water and weight of protein are expressed in grams for the same amount of sample of homogenised mixture.
 - (ii) The water-protein ratio is determined by taking the weight of the water and dividing it by the weight of the protein.
- (g) *Evaluation of result*

Highest permissible W/P ratios (15% level)

Cut	Highest permissible ratio
Breast	4.36
Thigh	4.82
Drumstick	4.66

COMMENCEMENT

9. These amendments shall come into operation 6 months after the date of publication.