ANNEX I

DETERMINATION OF THE TOTAL WATER CONTENT OF CHICKENS REFERRED TO IN ARTICLE 5(1)

(Chemical test)

1. Object and scope

The method to determine the total water content of frozen and quick-frozen chickens involves determination of the water and protein contents of samples from homogenised poultry carcases. The total water content as determined is compared with the limit value given by the formulae indicated in Annex VII to Delegated Regulation (EU) 2023/XXX [PLAN/2022/1902, to be completed by OP], to determine whether or not excess water has been taken up during processing. If the analyst suspects the presence of any substance which may interfere with the assessment, it is for him or her to take the necessary appropriate precautions.

2. Definitions

‘Carcase’: the poultry carcase with bones, cartilage and any additional offal.

‘Offal’: liver, heart, gizzard and oviduct, yolks and eggs (with or without shell) obtained from spent hens at the slaughterhouse.

3. Principle

Water and protein contents are determined in accordance with recognised ISO (International Organisation for Standardisation) methods or other methods of analysis approved by the Council of the European Union.

The maximum total water content of the carcase is determined from the protein content of the carcase, which can be related to the physiological water content.

4. Apparatus and reagents

4.1. Scales for weighing the carcase and wrappings, accurate to at least 1 g.

4.2. Meat-axe or saw for cutting carcases into pieces of appropriate size for the mincer.

4.3. Heavy-duty mincing machine and blender capable of homogenising complete frozen or quick-frozen poultry pieces.

NB:

No special mincer is recommended. It should have sufficient power to mince frozen or quick-frozen meat and bones to produce a homogeneous mixture corresponding to that obtained from a mincer fitted with a 4-mm hole disc.

4.4. Apparatus as specified in ISO 1442, for the determination of water content.

4.5. Apparatus as specified in ISO 937, for the determination of protein content.

5. Method

5.1. Seven carcases are taken at random from the quantity of poultry to be checked and in each case kept frozen until analysis in accordance with points 5.2 to 5.6 begins.

The analysis shall be carried out either on each of the seven carcases separately or on a composite sample of the seven carcases.

5.2. The preparation is commenced within the one hour following the removal of the carcases from the freezer.

5.3.

(a) The outside of the pack is wiped to remove superficial ice and water. Each carcase is weighed and removed from any wrapping material. After cutting up of the carcase into smaller pieces, any wrapping material around the edible offal is removed. The total weight of the carcase, including the edible offal and ice adhering to the carcase, is determined to the nearest gram after deduction of the weight of any wrapping material removed, to give 'P_1'.

(b) In the case of a composite sample analysis, the total weight of the seven carcases, prepared in accordance with point 5.3(a), is determined to give 'P_7'.

5.4.

(a) The whole carcase of which the weight is P_1 is minced in a mincer as specified under point 4.3 (and, if necessary, mixed with the use of a blender as well) to obtain a homogeneous material from which a sample representative of each carcase shall then be taken.

(b) In the case of a composite sample analysis, all seven carcases of which the weight is P_7 are minced in a mincer as specified under point 4.3 (and, if necessary, mixed with the use of a blender as well) to obtain a homogeneous material from which two samples representative of the seven carcases shall then be taken. The two samples are analysed as described in points 5.5 and 5.6.

5.5. A sample of the homogenised material is taken and used immediately to determine the water content in accordance with ISO 1442 to give the water content 'a %'.

5.6. A sample of the homogenised material is also taken and used immediately to determine the nitrogen content in accordance with ISO 937. This nitrogen content is converted to crude protein content 'b %' by multiplying it by the factor 6,25.

6. Calculation of results

6.1.

(a) The weight of water (W) in each carcase is given by $aP_1/100$ and the weight of protein (RP) by $bP_1/100$, both of which are expressed in grams. The sums of the weights of water (W_7) and the weights of protein (RP_7) in the seven carcases analysed are determined.

(b) In the case of a composite sample analysis, the average content of water and protein from the two samples analysed is determined to give a % and b %, respectively. The weight of the water (W_7) in the seven carcases is given by $aP_7/100$, and the weight of protein (RP_7) by $bP_7/100$, both of which are expressed in grams.

6.2. The average weight of water (W_A) and protein (RP_A) is calculated by dividing W_7 and RP_7, respectively, by seven.

6.3. The theoretical physiological water content in grams as determined by this method may be calculated by the following formula:

chickens: $3{,}53 \times RP_A + 23$.

ANNEX II

DETERMINATION OF THE TOTAL WATER CONTENT OF POULTRYMEAT CUTS REFERRED TO IN ARTICLE 8(1)

(Chemical test)

1. Object and scope

The method to determine the total water content of certain poultry cuts involves determination of the water and protein contents of samples from the homogenised poultry cuts. The total water content as determined is compared with the limit value given by the formulae indicated in Annex VIII to Delegated Regulation (EU) 2023/XXX [PLAN/2022/1902, to be completed by OP], to determine whether or not excess water has been taken up during processing. If the analyst suspects the presence of any substance which may interfere with the assessment, it is for him or her to take the necessary appropriate precautions.

2. Definitions and sampling procedures

The definitions provided for in Article 2, point (2), of Delegated Regulation (EU) 2023/XXX [PLAN/2022/1902, to be completed by OP] are applicable to the poultry cuts referred to in Article 15 of that Delegated Regulation. Sample sizes for different types of poultry meat correspond to the following shares:

(a) chicken breast: half of the breast;

(b) chicken breast fillet: half of the boned breast without skin;

(c) turkey breast, turkey breast fillet and boned leg meat: portions of about 100 g;

(d) other cuts: whole cut as defined in Article 2, point (2), of Delegated Regulation (EU) 2023/XXX [PLAN/2022/1902, to be completed by OP].

In the case of frozen or quick-frozen bulk products (cuts not individually packed) the large packs from which samples are to be taken shall be kept at 0 °C until individual cuts can be removed.

3. Principle

Water and protein contents are determined in accordance with recognised ISO (International Organisation for Standardisation) methods or other methods of analysis approved by the Council of the European Union.

The highest permissible total water content of the poultry cuts is determined from the protein content of the cuts, which can be related to the physiological water content.

4. Apparatus and reagents

4.1. Scales for weighing the cuts and wrappings, accurate to at least 1 g.

4.2. Meat-axe or saw for cutting cuts into pieces of appropriate size for the mincer.

4.3. Heavy-duty mincing machine and blender capable of homogenising poultry cuts or parts thereof.

NB:

No special mincer is recommended. It should have sufficient power to mince frozen or quick-frozen meat and bones to produce a homogeneous mixture corresponding to that obtained from a mincer fitted with a 4-mm hole disc.

4.4. Apparatus as specified in ISO 1442, for the determination of water content.

4.5. Apparatus as specified in ISO 937, for the determination of protein content.

5. Method

5.1. Five cuts are taken at random from the quantity of poultry cuts to be checked and kept frozen or refrigerated as the case may be until analysis in accordance with points 5.2 to 5.6 begins.

Samples from frozen or quick-frozen bulk products referred to under point 2 shall be kept at 0 °C until analysis begins.

The analysis shall concern either each of the five cuts separately or a composite sample of the five cuts.

5.2. The preparation is commenced within one hour following the removal of the cuts from the freezer or refrigerator.

5.3.

(a) The outside of the pack is wiped to remove superficial ice and water. Each cut is weighed and removed from any wrapping material. After cutting up the cuts into smaller pieces, the weight of the poultry cut is determined to the nearest gram after deduction of the weight of any wrapping material removed, to give 'P_1'.

(b) In the case of a composite sample analysis, the total weight of the five cuts, prepared in accordance with point 5.3(a), is determined to give 'P_5'.

5.4.

(a) The whole cut of which the weight is P_1, is minced in a mincer as specified under point 4.3 (and, if necessary, mixed with the use of a blender as well) to obtain a homogeneous material from which a sample representative of each cut shall then be taken.

(b) In the case of a composite sample analysis, all five cuts of which the weight is P_5 are minced in a mincer as specified under point 4.3 (and, if necessary, mixed with the use of a blender as well) to obtain a homogeneous material from which two samples representative of the five cuts shall then be taken.

The two samples are analysed as described in points 5.5 and 5.6.

5.5. A sample of the homogenised material is taken and used immediately to determine the water content in accordance with ISO 1442 to give the water content 'a %'.

5.6. A sample of the homogenised material is also taken and used immediately to determine the nitrogen content in accordance with ISO 937. This nitrogen content is converted to crude protein content 'b %' by multiplying it by the factor 6,25.

6. Calculation of results

6.1.

(a) The weight of water (W) in each cut is given by $aP_1/100$ and the weight of protein (RP) by $bP_1/100$, both of which are expressed in grams.

The sums of the weights of water (W_5) and the weights of protein (RP_5) in the five cuts analysed are determined.

(b) In the case of a composite sample analysis, the average content of water and protein from the two samples analysed is determined to give a % and b %, respectively. The weight of the water (W_5) in the five cuts is given by $aP_5/100$, and the weight of protein (RP_5) by $bP_5/100$, both of which are expressed in grams.

6.2. The average weight of water (W_A) and protein (RP_A) is calculated by dividing W_5 and RP_5 respectively, by five.

6.3. The mean physiological W/RP ratio as determined by this method is as follows:

chicken breast fillet: 3,19 ± 0,12,

chicken legs and leg quarters: 3,78 ± 0,19,

turkey breast fillet: 3,05 ± 0,15,

turkey legs: 3,58 ± 0,15,

deboned turkey leg meat: 3,65 ± 0,17.

ANNEX III

CHECK ON WATER ABSORBED IN THE PRODUCTION ESTABLISHMENT REFERRED TO IN ARTICLE 6(1)

(Slaughterhouse test)

1. Select at random 25 carcases from the evisceration line immediately after evisceration and the removal of the offal and fat and before the first subsequent washing.
2. If necessary, remove the neck by cutting, leaving the neck skin attached to the carcase.
3. Identify each carcase individually. Weigh each carcase and record its weight to the nearest gram.
4. Re-hang the test carcases on the evisceration line to continue through the normal processes of washing, chilling, dripping, etc.
5. Remove identified carcases at the end of the drip line without allowing them any longer time to drip than that allowed normally for poultry from the lot from which the sample was taken.
6. The sample consists of the first 20 carcases recovered (from the carcasses identified in previous step). The test is declared void if less than 20 identified carcases are recovered. The recovered carcasses are re-weighed. Their weight to the nearest gram is recorded against the weight recorded on first weighing.
7. Remove identification from sample carcases and allow the carcases to proceed through normal packing operations.
8. Determine percentage moisture absorption by subtracting the total weight of these same carcases after washing, chilling and dripping, dividing the difference by the initial weight and multiplying by 100.
9. Instead of manual weighing as described under points 1 to 8, automatic weighing lines may be used for the determination of the percentage of moisture absorption for the same number of carcases and according to the same principles, provided that the automatic weighing line is approved in advance for this purpose by the competent authority.

ANNEX IV

TASKS OF NATIONAL REFERENCE LABORATORIES REFERRED TO IN ARTICLE 7(3)

The national reference laboratories are responsible for the following tasks:

(a) coordinating the activities of the national laboratories responsible for analyses of water content in poultrymeat;

(b) assisting the competent authority in the Member State in organising the system for monitoring water content in poultrymeat;

(c) participating in comparative testing (proficiency testing) between the various national laboratories referred to in point (a);

(d) ensuring that the information supplied by the board of experts is disseminated to the competent authority in the relevant Member State and to the national laboratories referred to in point (a);

(e) collaborating with the board of experts and, if appointed to join the board of experts, preparing the necessary test samples, including homogeneity testing, and arranging appropriate shipping.