



2024/601

16.2.2024

**COMMISSION IMPLEMENTING REGULATION (EU) 2024/601
of 14 December 2023**

**laying down rules for the application of Regulation (EU) No 1308/2013 of the European Parliament
and of the Council as regards the certification of hops and hop products and related controls**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) No 1308/2013 of the European Parliament and of the Council of 17 December 2013 establishing a common organisation of the markets in agricultural products and repealing Council Regulations (EEC) No 922/72, (EEC) No 234/79, (EC) No 1037/2001 and (EC) No 1234/2007 ⁽¹⁾, and in particular Article 90a(6), first subparagraph, point (c), and Article 91, first paragraph, points (b), (d) and (g), thereof,

Whereas:

- (1) Regulation (EU) No 1308/2013 repealed and replaced Council Regulation (EC) No 1234/2007 ⁽²⁾. Regulation (EU) No 1308/2013 lays down rules on marketing standards for hops and the certification of hops and empowers the Commission to adopt delegated and implementing acts in that respect. In order to ensure the smooth functioning of the application of marketing standards and the certification for hops and hop products in the new legal framework, certain rules have to be adopted by means of implementing acts. Those acts should replace the relevant implementing provisions of Commission Regulation (EC) No 1850/2006 ⁽³⁾, which is repealed by Commission Delegated Regulation (EU) 2024/602 ⁽⁴⁾. References to the repealed Regulation should be read in accordance with Annex II to that Delegated Regulation, which provides for a correlation table.
- (2) Article 77(1) of Regulation (EU) No 1308/2013 provides that products of the hops sector harvested or prepared within the Union are to be subject to a certification procedure which guarantees that they meet minimum quality requirements. In order to ensure a uniform application of the certification procedure in the Member States, it is necessary to specify when and where the certification procedure should take place and who should bear the cost of it, as well as what constitutes proof of certification. Rules should also be put in place for cases where the packaging of hops or hop products is changed after certification.
- (3) In order to ensure traceability, hop should be marketed in sealed packages, which should bear markings concerning the description of the product, the variety, the harvest year and the unique reference number of the consignment, which must be identical to the reference number of the certificate issued in accordance with Article 77(1) of Regulation (EU) No 1308/2013 for the consignment in question.
- (4) Rules for establishing reference numbers should be laid down to allow the identification and ensure traceability of each consignment. To ensure this, the reference number should contain information about the Member State of certification, the certification centre who issued the certificate, the harvest year and the unique reference number attributed to the consignment. Apart from their unique reference number, certificates for hops and hop products should contain a minimum list of characteristics describing the product. To ensure the traceability of hop products, the reference numbers of the certificates for the input products and in case of a blend of input products, the percentages of hops of each variety and/or hop growing region used, expressed in hop cone equivalent, should also be listed on the certificate of the final product.

⁽¹⁾ OJ L 347, 20.12.2013, p. 671, ELI: <http://data.europa.eu/eli/reg/2013/1308/oj>.

⁽²⁾ Council Regulation (EC) No 1234/2007 of 22 October 2007 establishing a common organisation of agricultural markets and on specific provisions for certain agricultural products (Single CMO Regulation) (OJ L 299, 16.11.2007, p. 1, ELI: <http://data.europa.eu/eli/reg/2007/1234/oj>).

⁽³⁾ Commission Regulation (EC) No 1850/2006 of 14 December 2006 laying down detailed rules for the certification of hops and hop products (OJ L 355, 15.12.2006, p. 72, ELI: <http://data.europa.eu/eli/reg/2006/1850/oj>).

⁽⁴⁾ Commission Delegated Regulation (EU) 2024/602 of 14 December 2023 supplementing Regulation (EU) No 1308/2013 of the European Parliament and of the Council as regards the marketing standards in the hop sector and repealing Commission Regulation (EC) No 1850/2006 (OJ L, 2024/602, 16.2.2024, ELI: http://data.europa.eu/eli/reg_del/2024/602/oj).

- (5) To ensure traceability of hops as from the harvest stage, each consignment of unprepared hops should be given an identification number, which should appear on the certificate issued for the prepared hops. It should be specified that certified unprepared hops may only be turned into hop products in a closed operation circuit and that no other additives than hot water extract prepared from hops and glucose syrups for the standardisation of hop extracts may be used in this process.
- (6) Given that the alpha acid content of hops is naturally decreasing over time, a deadline for the certification of hop cones should be set, giving Member States the possibility to set an earlier date. A written harvest declaration should be drawn up and signed by the producer for each consignment of unprepared hops presented for certification.
- (7) Rules should be laid down concerning the methods for taking samples and for checking compliance with the minimum marketing requirements for hop cones laid down in Annex I to Delegated Regulation (EU) 2024/602.
- (8) To ensure the high quality of hop products, rules should be laid down to ensure that only certified inputs can be used for their production. This can be achieved either by the presence of representatives of the competent certification authority or by the technical layout of the processing plant.
- (9) As far as hop-processing plants are concerned, they should provide the competent certification authority with all information related to the technical layout of the processing plant and the measures put in place to ensure that in the case of hop powder, hop powder with higher lupulin content, extract of hops and mixed hop products, the alpha acid content of those products is not lower than that of the hops from which they have been prepared. Rules for the records to be kept by processing plants for each batch of hop product should be established to allow traceability of each input product to the final hop products.
- (10) To ensure the good functioning of the certification of hop products, Member States should appoint competent certification authorities responsible for carrying out the necessary controls and establishing manuals of procedures with a view to guarantee a minimum quality and full traceability of the certified hops and hop products. The competent certification authority should approve certification centres that can carry out certification of hops and/or hop products, allocating a code number to each of them which will be part of the unique reference number of each certificate they issue.
- (11) Minimum requirements for approved certification centres, as well as a minimum frequency for their control through on the spot checks carried out by the competent certification authority should be established.
- (12) The high quality and good reputation of products of the hops sector is due to the traceability of the certified products from unprepared hops to the final hop product. Therefore it is important that the certification authority is authorized to withdraw the approval of a certification centre in case of incorrect entries into a certificate issued by them or a neglect of the notification obligations towards the certification authority. Approval should be withdrawn for at least 12 months and only be re-established on request by the applicant if the certification authority is satisfied with the remedial action taken.
- (13) To ensure full traceability, the information concerning the certificates issued for hops and hop products needs to be centralised at national level. To minimise the administrative burden, the Member States should be allowed to lay down the form and manner in which that information shall be notified to them.
- (14) In order to facilitate the communication of information from the Member States to the Commission on all relevant aspects of the certification system for products of the hops sector, rules should be laid down concerning the content, timing, frequency and deadlines of the notifications as regards this scheme. For the proper management of

the hops sector, it is appropriate to provide that all notifications from the Member States to the Commission required in accordance with this Regulation should be made in accordance with Commission Delegated Regulation (EU) 2017/1183 ⁽⁵⁾ and Commission Implementing Regulation (EU) 2017/1185 ⁽⁶⁾.

- (15) The measures provided for in this Regulation are in accordance with the opinion of the Committee for the Common Organisation of the Agricultural Markets,

HAS ADOPTED THIS REGULATION:

SECTION 1

INTRODUCTORY PROVISIONS

Article 1

Definitions

The definitions provided for in Article 3 of Delegated Regulation (EU) 2024/602 shall apply to this Regulation.

SECTION 2

CERTIFICATION OF HOPS AND HOP PRODUCTS

Article 2

Certification procedure

1. The procedure for the certification of hop cones falling under CN code 1210 10 00 covered by Part VI of Annex I to Regulation (EU) No 1308/2013 and hop products falling under CN codes 1210 20 and 1302 13 00 covered by Part VI of Annex I to that Regulation pursuant to Article 77 of that Regulation shall be carried out before the product is placed on the market and consists of an analysis of the consignment in question.
2. In order to be certified, hop cones shall comply with the minimum marketing requirements set out in Annex I to Delegated Regulation (EU) 2024/602. Hop products shall meet the requirements laid down in Article 77(2) of Regulation (EU) No 1308/2013 in order to be certified and it shall be ensured that they are derived entirely from hops meeting the minimum marketing requirements. Certified hops and hop products shall be accompanied by a certificate issued in accordance with Article 77 of Regulation (EU) No 1308/2013.
3. The certification procedure shall be carried out in the Member State in which the hops are grown for hop cones and in which the hop product is produced for processed hops and hop products.
4. The certification procedure shall take place at the farm or at certification centres under official surveillance.

⁽⁵⁾ Commission Delegated Regulation (EU) 2017/1183 of 20 April 2017 on supplementing Regulations (EU) No 1307/2013 and (EU) No 1308/2013 of the European Parliament and of the Council with regard to the notifications to the Commission of information and documents (OJ L 171, 4.7.2017, p. 100, ELI: http://data.europa.eu/eli/reg_del/2017/1183/oj).

⁽⁶⁾ Commission Implementing Regulation (EU) 2017/1185 of 20 April 2017 laying down rules for the application of Regulations (EU) No 1307/2013 and (EU) No 1308/2013 of the European Parliament and of the Council as regards notifications to the Commission of information and documents and amending and repealing several Commission Regulations (OJ L 171, 4.7.2017, p. 113, ELI: http://data.europa.eu/eli/reg_impl/2017/1185/oj).

5. The costs of the certification shall be borne by the operators subject to it, save where Member States decide otherwise.
6. The marking appearing on each sealed package and the certificate which shall accompany the hop product shall constitute proof of certification.
7. If, after certification, the packaging of hops or hop products is changed, with or without further processing, the product shall be subject to a new certification procedure. However, where a change of packaging is carried out under official surveillance without any processing of the product, the certification procedure shall comprise only of the marking of the new packaging and the entry on the original certificate of this marking and the mention 'change of packaging'.

Article 3

Marking and sealing

1. Marking of packages in accordance with Annex I shall be carried out after sealing under official surveillance, on the unit of packaging in which the product is to be marketed. The reference number shall be the same for all packages in a consignment and shall correspond to the unique reference number of the certificate for that consignment, established in accordance with Annex II.
2. Each package shall bear at least the following markings in one of the official languages of the Union:
 - (a) the description of the product including the mention 'prepared hops' or 'unprepared hops', as the case may be;
 - (b) the variety or varieties;
 - (c) the year of harvest;
 - (d) the unique reference number of the certificate issued in accordance with Article 4.

These markings shall appear in legible, indelible characters of uniform size.

3. In the case of hops from experimental strains in the course of development and produced by a research institute on its own premises or by a producer on behalf of such an institute, entries referred to in paragraph 2, first subparagraph, point (b), may be replaced by a name or number identifying the strain in question.

Article 4

Certificate

1. Each certificate shall be given a unique reference number made up of the codes designating, in accordance with Annex II, the Member State, the code number allocated to the certification centre, the year of harvest and the reference number given to the relevant consignment by the certification centre.
2. In the case of hop cones, the certificate shall include at least the following entries:
 - (a) the description of the product including the mentions 'seeded hops' or 'seedless hops', as appropriate, and 'prepared hops' or 'unprepared hops', as the case may be;
 - (b) the unique reference number of the certificate for the consignment;
 - (c) the net and/or gross weight of the consignment;
 - (d) the hop production area;
 - (e) the variety;
 - (f) the mention 'seeded hops' or 'seedless hops', as appropriate;
 - (g) the year of harvest;
 - (h) the entry listed in Annex III in at least one of the official languages of the Union.

In the case of hops from experimental strains, the entries referred to in the first subparagraph, point (e), may be replaced by a name or number identifying the strain in question.

3. In the case of hop products, the certificate shall include at least the following entries:

- (a) the description of the product;
- (b) the unique reference number of the certificate of the consignment;
- (c) the net and/or gross weight of the consignment;
- (d) the unique reference number of the certificate(s) of the hops used;
- (e) the variety or varieties of the hops used;
- (f) the production area(s) of the hops used;
- (g) the year of harvest;
- (h) the place and date of processing;
- (i) the entry listed in Annex III in at least one of the official languages of the Union.

4. Where hop cones of different varieties and/or production areas are blended to be transformed into a hop product, the certificate accompanying the product must state the percentage weight of each of the different hop varieties and production regions used in the blend.

5. If hop products are used in combination with hop cones for the manufacturing of hop products, or if different hop products are used, the percentage of each input product shall be stated on the certificate, based on the weight of the hop cones that were used for the preparation of the input products.

6. The unique reference numbers of the certificates issued for the input products used in the blend shall be mentioned next to the product.

Article 5

Common certification requirements for hops and hop products

- 1. An identification number shall be given to the consignment of original unprepared hops before preparation. This number shall appear on the certificate issued for the prepared hops.
- 2. Hop products produced from certified unprepared hops may be certified only if the preparation took place within a closed operating circuit.
- 3. With the exception of hot water extract prepared from hops and glucose syrups for the standardisation of hop extracts, only certified hops and hop products shall enter the closed operating circuit. They shall enter only in the state in which they have been certified.

SECTION 3

ADDITIONAL CERTIFICATION REQUIREMENTS FOR HOPS

Article 6

Unprepared hops presented for certification

- 1. For hop cones, certification shall take place not later than 31 March of the year following the year of harvest. Member States may set an earlier date.
- 2. Every consignment of unprepared hops presented for certification shall be accompanied by a written harvest declaration signed by the producer giving the following data:
 - (a) the producer's name and address;
 - (b) the place of production;

- (c) the variety;
- (d) the year of harvest;
- (e) the parcel reference in the land register or an official equivalent thereof;
- (f) the number of packages in the consignment.

3. The harvest declaration provided for in paragraph 2 shall accompany the consignment of hops until the certificate is issued.

Article 7

Verification of the minimum quality criteria of unprepared hops

1. Compliance with the minimum marketing requirement relating to the moisture content of the hops laid down in Annex I to Delegated Regulation (EU) 2024/602 shall be checked by representatives of the competent certification authority applying one of the methods described in section B of Annex IV to this Regulation and must give results within two standard deviations. In the event of a dispute, compliance shall be checked by the method described in section B, point 1, of Annex IV to this Regulation.
 2. Compliance with minimum marketing requirements other than the moisture content shall be checked in accordance with normal commercial practice.
- However, in the event of a dispute concerning the extraneous matter content, the method described in section C of Annex IV shall be used.
3. For the purpose of the control methods referred to paragraphs 1 and 2, samples shall be taken and treated in accordance with the method described in section A of Annex IV. Samples shall be taken, in each consignment, from at least one package in ten and, in any case, from at least two packages in a consignment.

SECTION 4

ADDITIONAL CERTIFICATION REQUIREMENTS FOR HOP PRODUCTS

Article 8

Safeguards during the production of hop products

1. Hop products may only be certified if representatives of the competent certification authority are present at all times when the processing is taking place. The representatives of the competent authority shall supervise the processing at every stage, from the opening of the sealed package containing the certified hops or certified hop product to be processed to the completion of packaging, sealing and marking of the final hop product.
2. The presence of representatives of the competent certification authority when processing is taking place is not required as long as it can be assured by technical means, approved by the competent certification authority, that the provisions of this Regulation are respected.
3. Hop products may only be certified if, before changing to a different batch in a processing system it has been ensured that the processing system is empty, at least to the extent necessary to avoid that the elements of two different batches are mixed.

Article 9

Information and record keeping by processing plants

1. The operators of hop-processing plants shall provide the competent certification authority with all information related to the technical layout of the processing plant, as well as the measures in place to ensure the respect of the requirement laid down in Article 77(2) of Regulation (EU) No 1308/2013.

2. The operators of hop-processing plants shall keep exact records concerning the mass throughput of hops processed. For each batch of hops to be processed records shall be drawn up which contain details of the weights of the input products and of the processed product obtained.

As far as the input products are concerned, the records shall furthermore contain the unique reference number of the certificate for all hop consignments involved and the variety and production region of the hops. If hops from more than one variety or production region are used in the production of the same batch, the respective shares of their weight must appear in the records.

As regards the processed product, the variety and production region shall also appear in the records, or, if the processed product is a blend, the composition by varieties and/or production regions. All weights may be rounded off to the nearest kilogram.

3. Records of the mass throughput shall be signed by representatives of the competent certification authority as soon as the processing of a batch has been completed. They shall be kept by the operator of the processing plant for at least 3 years.

SECTION 5

CERTIFICATION AUTHORITIES AND CERTIFICATION CENTRES

Article 10

Competent certification authority

1. Member States shall appoint competent certification authorities and ensure that the necessary controls and manuals of procedures are in place, with a view to guaranteeing a minimum quality of the certified hops and hop products, the respect of the requirement laid down in Article 77(2) of Regulation (EU) No 1308/2013 as well as traceability of the hops and hop products at consignment level.

2. The competent certification authority shall approve certification centres allowed to carry out certification of hops and/or hop products and allocate a code number to them in accordance with point 1 of Annex II.

Article 11

Approval and control of certification centres

1. The competent certification authority shall approve certification centres, having a legal personality or sufficient legal capacity to be subject, under national legislation, to rights and obligations, and ensure that they have adequate facilities to carry out the necessary sampling, analytical, statistical and recording tasks.

2. On the basis of a risk analysis, at least once per calendar year, the competent certification authority shall carry out random on-the-spot checks of certification centres in order to verify compliance with paragraph 1. The effectiveness of risk analysis parameters used in previous years shall be assessed on an annual basis.

Article 12

Withdrawal of approval

1. The competent certification authority shall withdraw the approval of a certification centre if it finds that in the preparation of hop products non-permitted components have been used, or that the components used do not conform to the entries in the certificate as provided for in Article 4(2) and (3), and if this is imputable to the certification centre concerned, or if the certification centre neglects the notification obligation referred to in Article 13 or submits incorrect notifications.

2. Approval may not be restored for a period of at least 12 months following the date of withdrawal. On request of the certification centre from which approval was withdrawn, approval may be restored after that period if the certification authority is satisfied with the remedial action taken.

SECTION 6

NOTIFICATIONS

Article 13

Notification to the competent certification authority

The information concerning the certificates issued for hops and hop products shall be centralised at national level.

Member States shall lay down the form and manner in which this information shall be notified to them by the certification centres.

Article 14

Notifications to the Commission

1. Member States shall notify to the Commission, by 30 June each year at the latest, of:
 - (a) a list of their hop production areas;
 - (b) the names and addresses of their competent certification authorities;
 - (c) a list of the certification centres on their territory and the code number allocated to each certification centre.
2. The notifications to the Commission referred to in paragraph 1 shall be made in accordance with Delegated Regulation (EU) 2017/1183 and Implementing Regulation (EU) 2017/1185.
3. The removal of a certification centre from the national list shall be notified to the Commission without delay.

Article 15

Publication of lists

The Commission shall ensure that the list of hop production areas and the list of certification centres and their code numbers are updated regularly and available on the website of the Commission.

SECTION 7

FINAL PROVISIONS

Article 16

Entry into force

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 14 December 2023.

For the Commission
The President
Ursula VON DER LEYEN

ANNEX I

MARKING OF PACKAGES REFERRED TO IN ARTICLE 3

Packages shall be marked as follows, depending on the type of package:

- (a) for hop cones put up in bales or ballots:
 - printing on the package, or
 - printing on adhesive seal;
 - (b) for hop powder in packets:
 - printing on the packet, or
 - printing on adhesive seal;
 - (c) for hop powder or hop extract in containers:
 - printing on the container,
 - printing on adhesive seal or stamping into the container;
 - (d) for sealed packages containing a consignment of packets or containers of powder or extract:
 - printing on the sealed package or the adhesive seal, and
 - printing on each packet or container of powder or extract in the sealed package, or on its adhesive seal.
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ANNEX II

COMPOSITION OF THE UNIQUE CERTIFICATE REFERENCE NUMBER REFERRED TO IN ARTICLE 4

1. CERTIFICATION CENTRE

A number in three digits between 000 and 099 allocated by the certification authority of the Member State.

2. MEMBER STATES CARRYING OUT CERTIFICATION

BE	for Belgium
BG	for Bulgaria
CZ	for Czechia
DK	for Denmark
DE	for Germany
EE	for Estonia
EL	for Greece
ES	for Spain
FR	for France
HR	for Croatia
IE	for Ireland
IT	for Italy
CY	for Cyprus
LV	for Latvia
LT	for Lithuania
LU	for Luxembourg
HU	for Hungary
MT	for Malta
NL	for the Netherlands
AT	for Austria
PL	for Poland
PT	for Portugal
RO	for Romania
SI	for Slovenia
SK	for Slovakia
FI	for Finland
SE	for Sweden

3. YEAR OF HARVESTING

The last two figures of the year of harvesting.

4. UNIQUE IDENTIFICATION NUMBER

Each certification centre shall give distinct, consecutive numbers to the consignments they certify.

5. IDENTIFICATION OF THE CONSIGNMENT

The unique reference number given to the consignment by the certification centre (for example 012 BE 23 170225).

ANNEX III

ENTRIES REFERRED TO IN ARTICLE 4(2), FIRST SUBPARAGRAPH, POINT (h), AND ARTICLE 4(3), POINT (i)

<i>in Bulgarian:</i>	Сертифициран продукт – Регламент за изпълнение (ЕС) 2024/601
<i>in Spanish:</i>	Producto certificado – Reglamento de Ejecución (UE) 2024/601 de la Comisión
<i>in Czech:</i>	Ověřený produkt – Prováděcí nařízení Komise (EU) 2024/601
<i>in Danish:</i>	Certificeret produkt – Kommissionens gennemførelsesforordning (EU) 2024/601
<i>in German:</i>	Zertifiziertes Erzeugnis – Durchführungsverordnung (EU) 2024/601 der Kommission
<i>in Estonian:</i>	Sertifitseeritud toode – Komisjoni rakendusmäärus (EL) 2024/601
<i>in Greek:</i>	Πιστοποιημένο προϊόν – Εκτελεστικός κανονισμός (ΕΕ) 2024/601 της Επιτροπής
<i>in English:</i>	Certified product – Commission Implementing Regulation (EU) 2024/601
<i>in French:</i>	Produit certifié – Règlement d'exécution (UE) 2024/601 de la Commission
<i>in Croatian:</i>	Certificirani proizvod – Provedbena uredba Komisije (EU) 2024/601
<i>in Irish:</i>	Táirge deimhnithe – Rialachán Cur Chun Feidhme (AE) 2024/601
<i>in Italian:</i>	Prodotto certificato – Regolamento di esecuzione (UE) 2024/601 della Commissione
<i>in Latvian:</i>	Sertificēts produkts – Komisijas Īstenošanas regula (ES) 2024/601
<i>in Lithuanian:</i>	Sertifikuotas produktas – Komisijos įgyvendinimo reglamentas (ES) 2024/601
<i>in Hungarian:</i>	Tanúsított termék – A Bizottság (EU) 2024/601 végrehajtási rendelete
<i>in Maltese:</i>	Prodott Iccertifikat – Regolament ta' Implimentazzjoni tal-Kummissjoni (UE) 2024/601
<i>in Dutch:</i>	Gecertificeerd product – Uitvoeringsverordening (EU) 2024/601 van de Commissie
<i>in Polish:</i>	Produkt certyfikowany – Rozporządzenie wykonawcze Komisji (UE) 2024/601
<i>in Portuguese:</i>	Produto certificado – Regulamento de Execução (UE) 2024/601 da Comissão
<i>in Romanian:</i>	Produs certificat – Regulamentul de punere în aplicare (UE) 2024/601 al Comisiei
<i>in Slovak:</i>	Certifikovaný výrobok – Vykonávacie nariadenie Komisie (EÚ) 2024/601
<i>in Slovenian:</i>	Certificiran pridelek – Izvedbena uredba Komisije (EU) 2024/601
<i>in Finnish:</i>	Varmennettu tuote – Komission täytäntöönpanoasetus (EU) 2024/601
<i>in Swedish:</i>	Certifierad produkt – Kommissionens genomförandeförordning (EU) 2024/601

ANNEX IV

METHODS REFERRED TO IN ARTICLE 7

A. SAMPLING METHOD

The following procedure shall be used to take samples of hop cones for determining the moisture content and, where applicable, the extraneous matter content:

1. Sampling

(a) Packed hops

A weight of hops proportional to the weight of the package shall be taken from the number of packages specified in Article 7(3). Enough samples shall be taken to ensure that there are enough cones to be representative of the package.

(b) Hops in a loose pile

Take equal portions from five to ten different places in the pile both at the surface and at various depths to constitute a sample. Place the sample in the container as soon as possible. To avoid rapid deterioration, the quantity of hops must be sufficiently large to be highly compressed when the container is closed.

The sample must weigh at least 250 gram.

2. Mixture

The samples must be carefully mixed to be representative of the consignment.

3. Sub-sampling

After mixing, take one or more representative samples and place them in a waterproof, airtight container such as a metal box, a glass jar or a plastic bag, except where only the extraneous matter content is to be checked.

4. Storage

Except during transport, samples must be stored in a cold place. Care should be taken to allow the samples to return to room temperature inside the container before opening for examination or analysis.

B. METHODS FOR CHECKING THE MOISTURE CONTENT OF HOPS

1. Method (i)

Samples for moisture content must not be ground. They should be exposed to the air only for the minimum time necessary for their transfer from the container to the weighing vessel (which must have a lid).

Apparatus

Balance sensitive to 0,005 grams.

Drying oven electrically heated and thermostated to 105 to 107 °C (the efficacy of the oven should be checked by the copper sulphate test).

Metal dishes 70 to 100 mm in diameter, 20 to 30 mm deep and provided with well-fitting lids.

Ordinary desiccators, suitable for accommodating the dishes and containing a desiccant such as indicator silica gel.

Method

Transfer 3 to 5 grams of hops to a dish and close the lid before weighing. Weigh as quickly as possible. Remove the lid and place the dish in the oven for one hour exactly. Replace the lid, place the dish in a desiccator to cool for at least 20 minutes and then weigh the dish.

Calculation

Calculate the loss of weight as a percentage of the original weight of hops. The maximum deviation for individual estimation is 1 %.

2. Method (ii)

Method using either an electronic weighing machine which dries the hops with infra-red rays or hot air, or an electric measuring apparatus, which registers on a scale the degree of humidity of the sample taken.

C. METHOD FOR CHECKING THE EXTRANEEOUS MATTER CONTENT

1. Determination of the leaf, stalk and waste content

Sieve five 100 gram samples (or one 250 gram sample) using a 2 to 3 mm sieve. Collect the lupulin, waste and seeds and separate the seeds by hand. Place the samples on one side. Transfer the contents of the 2 to 3 mm sieve to a 8 to 10 mm sieve and sieve again.

The hop cones, leaves, stalks and extraneous matter are collected by hand from the sieve while cone leaves, seeds, lupulin, waste and some leaves and stalks pass through. All this is sorted by hand and divided into the following groups:

- (a) leaves and stalks;
- (b) hops (cone leaves, hop cones and lupulin);
- (c) waste;
- (d) seeds.

Whereas it is extremely difficult to separate the waste and the lupulin precisely it is possible, using a sieve with a mesh size of 0,8 millimetres, to determine approximately the relative proportions of the waste and the lupulin.

When estimating the proportion of lupulin, it should be taken into account that the density of the lupulin is four times greater than that of the waste.

The various groups are weighed and the percentage which each group represents in the weight of the original sample is determined.

2. Determination of the seed content

Place a 25 gram sample in a metal container with a lid and heat in a drying oven for two hours at 115 °C in order to neutralise the sticky resin.

Wrap the dried sample in coarse cotton cloth and rub vigorously or beat mechanically in order to detach the seeds from the hops. Separate the dried and finely fragmented hops from the seeds with a grinder or a 1 mm metal sieve.

Separate any items remaining with the seeds using either a sloping surface covered with emery paper or any other method which gives the same result, i.e. retains the stems and other matter and permits the seeds to roll off.

Weigh the seeds and determine the percentage of seeds relative to the weight of the original sample.