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COMMISSION REGULATION (EC) No 824/2000

of 19 April 2000

establishing procedures for the taking-over of cereals by intervention agencies and laying down methods of analysis for determining the quality of cereals

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COMMISSION REGULATION (EC) No 824/2000

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establishing procedures for the taking-over of cereals by intervention agencies and laying down methods of analysis for determining the quality of cereals

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Regulation (EEC) No 1766/92 of 30 June 1992 on the common organisation of the market in cereals ([1]), as last amended by Regulation (EC) No 1253/1999 ([2]), and in particular Article 5 thereof,

Whereas:

(1) The intervention price for common wheat, durum wheat, barley, rye, maize and sorghum is fixed for qualities corresponding as far as possible to the average quality of the cereals harvested in the Community.

(2) Intervention prices are increased or reduced to reflect price differences observed on the market for different qualities.

(3) Cereals of inadequate quality for use or storage should not be accepted for intervention.

(4) In order to simplify the management of intervention operations and, in particular, to permit the establishment of homogeneous lots for each type of cereal offered to intervention, a minimum quantity, below which the intervention agency is not obliged to accept the offer, should be fixed. However, it may be necessary to provide for a greater minimum tonnage in certain Member States, so that intervention agencies may take account of pre-existing conditions and practices of the wholesale trade in those countries.

(5) The conditions under which cereals are offered to and taken over by the intervention agencies must be as uniform as possible throughout the Community in order to avoid any discrimination between producers.

(6) Methods of determining the quality of common wheat, durum wheat, rye, barley, maize and sorghum must be defined.

(7) In addition to requiring an annual stock statement pursuant to Commission Regulation (EC) No 2148/96 of 8 November 1996 laying down rules for evaluating and monitoring public intervention stocks of agricultural products ([3]), as amended by Regulation (EC) No 808/1999 ([4]), the Member States must check the state of preservation of the intervention stocks held.

(8) Commission Regulation (EEC) No 689/92 of 19 March 1992 fixing the procedure and conditions for the taking-over of cereals by intervention agencies ([5]), as last amended by Regulation (EC) No 1664/1999 ([6]) and Commission Regulation (EEC) No 1908/84 of 4 July 1984 fixing the standard methods for determining the quality of cereals ([7]), as last amended by Regulation (EEC) No 2507/87 ([8]), have been frequently amended. For reasons of clarity they should be replaced.

([1]) OJ L 181, 1.7.1992, p. 21.
([2]) OJ L 160, 26.6.1999, p. 18.
([3]) OJ L 288, 9.11.1996, p. 6.
([4]) OJ L 102, 17.4.1999, p. 70.
([5]) OJ L 74, 20.3.1992, p. 18.
([6]) OJ L 197, 29.7.1999, p. 28.
([7]) OJ L 178, 5.7.1984, p. 22.
([8]) OJ L 235, 20.8.1987, p. 10.

▼B

(9) The Management Committee for Cereals has not delivered an opinion within the time limit set by its chairman,

HAS ADOPTED THIS REGULATION:

Article 1

During the periods referred to in Article 4(2) of Regulation (EEC) No 1766/92, any holder of a homogeneous batch of not less than 80 tonnes of common wheat, rye, barley, maize or sorghum or 10 tonnes of durum wheat, harvested within the Community, shall be entitled to offer the batch to the intervention agency.

However, the intervention agencies may fix a greater minimum tonnage.

Article 2

1. In order to be accepted for intervention, the cereals must be sound, fair and of marketable quality.

2. They shall be considered sound, fair and of marketable quality if they are of the typical colour of the cereal in question, are free from abnormal smell and live pests (including mites) at every stage of their development and meet the minimum quality requirements set out in Annex I hereto, and if their radioactivity levels do not exceed the maximum levels permitted under Community regulations.

The level of radioactive contamination of the product shall be monitored only if the situation so requires and only for as long as is necessary. Where necessary, the duration and scope of the controls shall be determined in accordance with the procedure laid down in Article 23 of Regulation (EEC) No 1766/92.

In addition, in cases where analyses indicate that the Zeleny index of a batch of common wheat is between 22 and 30, for this wheat to be deemed sound, fair and of marketable quality within the meaning of paragraph 1, the dough obtained from it must be judged to be non-sticky and machinable.

3. For the purposes of this Regulation, matter other than basic cereals of unimpaired quality shall be as defined in Annex II.

Grains of basic cereals and other cereals which are damaged, affected by ergot or decayed shall be classified as ‘miscellaneous impurities’ even if they have defects which belong to other categories.

Article 3

To determine the quality of cereals offered for intervention under Articles 5 and 6 of Regulation (EEC) No 1766/92, the following methods shall be used:

3.1. the standard method for determining matter other than basic cereals of unimpaired quality shall be that set out in Annex III;

3.2. the standard method for determining moisture content shall be that set out in Annex IV. However, Member States may also use other methods based on the principle set out in Annex IV, method ISO 712:1998 or a method based on infra-red technology. In case of dispute, only the results of using the method set out in Annex IV shall be accepted;

3.3. the standard method for determining the tannin content of sorghum shall be method ISO 9648:1988;

3.4. the standard method for determining the non-stickiness and machinability of the dough obtained from common wheat shall be that set out in Annex V;

3.5. the standard method for determining the protein content of ground common wheat shall be that recognised by the International Association for Cereal Chemistry (ICC), the standards of which are laid

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down under heading No 105/2: ‘method for the determination of the protein content of cereals and cereal products’

However, Member States may use any other method. In such a case, they must furnish the Commission with evidence of recognition by the ICC that the method in question gives equivalent results;

3.6. the method for determining the Zeleny index of ground common wheat shall comply with ISO 5529:1992;

3.7. the method for determining the Hagberg falling number (amylase activity test) shall comply with ISO 3093:1982;

3.8. the standard method for determining the rate of loss of vitreous aspect of durum wheat shall be that set out in Annex VI;

3.9. the standard method for determining the specific weight shall comply with ISO 7971/2:1995.

Article 4

1. To be valid, all offers for intervention shall be made using a form issued by the intervention agency, containing the following details:

(a) name of the applicant,

(b) cereal offered,

(c) place of storage of the cereal offered,

(d) quantity, main characteristics and harvesting year of the cereal offered,

(e) intervention centre for which the offer is made.

The form shall also contain a declaration that the products are of Community origin or, in the case of cereals admitted to intervention under specific conditions according to their zone of production, details of the region in which they were produced.

However, the intervention agency may regard as valid offers submitted in another written form, in particular telecommunications, provided that all the details to be shown on the form referred to in the first subparagraph are included.

Without prejudice to the validity from the date of presentation of an offer submitted in accordance with the third subparagraph, Member States may require that it be followed by the forwarding or direct submission to the competent agency of the form provided for in the first subparagraph.

2. Should an offer be inadmissible, the operator concerned shall be informed by the intervention agency accordingly within five working days following receipt.

3. Should an offer be admissible, operators shall be informed as soon as possible of the store at which the cereals are to be taken over and of the delivery schedule.

At the request of the offerer or the storekeeper, the said schedule may be amended by the intervention agency.

The final delivery shall be made not later than the end of the fourth month following the month during which the offer was received, without, however, being later than 1 July in Spain, Greece, Italy and Portugal and 31 July in the other Member States.

Article 5

1. The cereals offered shall be taken over by the intervention agency when the quantity and the minimum required standards, as set out in the Annex, have been established by the intervention agency or its representative for the entire lot in respect of the goods delivered to the intervention store.

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2. The quality characteristics shall be established on the basis of a representative sample of the lot offered, consisting of samples taken at the rate of once every delivery for at least every 60 tonnes.

3. The quantity delivered must be weighed in the presence of the offerer and a representative of the intervention agency who is independent vis-à-vis the offerer.

The representative of the intervention agency may also be the storekeeper. In that case:

(a) within 45 days of take-over, the intervention agency shall itself conduct an inspection involving at least a volumetric check; any difference between the quantity determined by weighing and the quantity estimated in accordance with the volumetric method may not exceed 5 %;

(b) where the tolerance is not exceeded, the storekeeper shall bear all costs relating to any difference observed, at a later weight check, from the weight entered in the accounts on when the cereals were taken over;

(c) where the tolerance is exceeded, the cereals shall be weighed forthwith. The costs of weighing shall be borne by the storekeeper, where the weight determined is less than that recorded, or by the Member State, where it is more.

4. In the case of take-over in the store in which the cereals are being held at the time of the offer, the quantity may be established on the basis of the stock records, which must satisfy professional requirements and those of the intervention agency, and provided that:

(a) the stock records show the weight recorded on weighing, the physical quality characteristics at the time of weighing, and, in particular, the moisture content, transsilages if any, and treatments carried out; the weighing may not have been carried out more than 10 months previously;

(b) the storekeeper declares that the lot offered corresponds in all respects to the details contained in the stock records;

(c) the quality characteristics established at the time of weighing are the same as those of the representative sample made up from the samples taken by the intervention agency or its representative at a rate of one for every 60 tonnes.

5. Where paragraph 4 is applied:

(a) the weight to be recorded shall be that entered in the stock records, adjusted, where appropriate, to take account of any difference between the moisture content and/or the percentage of miscellaneous impurities (Schwarzbesatz) recorded at the moment of weighing and those determined on the basis of the representative sample. A difference between the percentages of miscellaneous impurities may only be taken into account to reduce the weight entered in the stock records;

(b) within 45 days of take-over the intervention agency shall make a further volumetric check; the difference between the quantity determined by weighing and the quantity estimated in accordance with the volumetric method may not exceed 5 %;

(c) where the tolerance is not exceeded, the storekeeper shall bear all costs relating to any difference observed, at a later weight check, from the weight entered in the accounts on take-over;

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(d) where the tolerance is exceeded, the cereals shall be weighed forthwith. The costs of weighing shall be borne by the storekeeper, where the weight determined is less than that recorded, or by the European Agricultural Guidance and Guarantee Fund, where it is more, account being taken of the tolerance provided for in the first indent of Article 2(1) of Regulation (EEC) No 147/91.

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Article 6

The intervention agency shall see that the physical and technical characteristics of the samples taken are analysed under its responsibility within 20 working days of the representative sample being made up.

If the analyses provided for above show that the cereals offered do not meet the minimum quality required for intervention, the said cereals shall be withdrawn at the offerer's expense. The offerer shall also bear all the costs incurred.

The offerer shall bear the costs relating to:

(a) determination of the tannin content of sorghum,

(b) the amylasic activity (Hagberg) test,

(c) determination of the protein content of durum wheat and common wheat,

(d) the Zeleny test,

(e) the machinability test,

In cases of dispute, the intervention agency shall have the necessary tests on the cereals in question carried out again, the cost being met by the losing party.

Article 7

A take-over record shall be drawn up by the intervention agency for each lot. It shall indicate:

(a) the date on which the quantity and minimum characteristics were checked,

(b) the weight delivered,

(c) the number of samples taken to make up the representative sample,

(d) the physical characteristics established,

(e) the agency responsible for analysing the technological criteria and the results thereof.

The record shall be dated and sent to the storekeeper for countersigning.

Article 8

1. Without prejudice to paragraph 2, the price payable to the offerer shall be the intervention price referred to in Article 3(1) of Regulation (EEC) No 1766/92, valid on the date specified as the first day of delivery when notice was given of acceptance of the offer, for goods delivered at warehouse, before unloading. This price shall be adjusted in accordance with the increases and reductions referred to in Article 9.

However, where delivery takes place in a month in which the intervention price is lower than that of the month of the offer, the higher price shall be paid. This provision shall not apply to maize and sorghum offered in August and September.

2. On receipt of an offer, in compliance with Article 4 of Regulation (EEC) No 1766/92, the intervention agency shall decide on the place and the first date for the cereals to be taken over.

Transport costs from the place where the goods are stored when the offer is made to the intervention centre to which they can be transported at least expense shall be borne by the offerer.

Should the intervention agency take over the goods at a place other than the intervention centre to which they may be transported at least expense, it shall determine and bear the additional transport costs. In this case the transport costs referred to in the preceding subparagraph shall be determined by the intervention agency.

If the intervention agency, in agreement with the offerer, stores the goods at the place at which they are located at the time the offer is made, the costs referred to in the second sentence of the preceding

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subparagraph and the costs of removal from the warehouse, the latter being assessed on the basis of the rates actually recorded in the Member State concerned, shall be deducted from the intervention price.

3. Payment shall be made between the 30th and the 35th day following the date of take-over, as referred to in Article 5.

Article 9

The price increases or reductions by which the intervention price is increased or decreased shall be expressed in euro per tonne and applied jointly, as provided below:

(a) where the moisture content of the cereals offered for intervention is less than 14 %, the price increases to be applied shall be those listed in Table I of Annex VII. Where the moisture content of the cereals offered for intervention is more than 14 %, the price reductions to be applied shall be those listed in Table II of Annex VII;

(b) where the specific weight of common wheat or barley offered for intervention differs from the specific weight of 76 kg/hl or 64 kg/hl respectively, the price reductions to be applied shall be those listed in Table III of Annex VII;

(c) where the percentage of broken grains exceeds 3 % for durum wheat, common wheat, rye and barley and 4 % for maize and sorghum, a reduction of EUR 0,05 shall be applied for each additional 0,1 percentage point;

(d) where the percentage of grain impurities exceeds 2 % for durum wheat, 3 % for rye, 4 % for maize and sorghum, and 5 % for common wheat and barley a reduction of EUR 0,05 shall be applied for each additional 0,1 percentage point;

(e) where the percentage of sprouted grains exceeds 2,5 %, a reduction of EUR 0,05 shall be applied for each additional 0,1 percentage point;

(f) where the percentage of miscellaneous impurities (Schwarzbesatz) exceeds 0,5 % for durum wheat and 1 % for common wheat, rye and barley, maize and sorghum, a reduction of EUR 0,1 shall be applied for each additional 0,1 precentage points;

(g) where the percentage of piebald grains in durum wheat exceeds 20 %, a reduction of EUR 0,2 shall be applied for each additional percentage point or fraction thereof;

(h) where the protein content of common wheat is less than 11,5 %, the reductions to be applied shall be those listed in Table IV of Annex VII;

(i) where the tannin content of sorghum offered for intervention is higher than 0,4 % of the dry matter, the reduction to be applied shall be calculated in accordance with the method laid down in Annex VIII.

Article 10

1. Any operator who stores bought-in products on behalf of the intervention agency shall monitor their presence and state of preservation regularly and inform the aforesaid agency without delay of any problem arising in that respect.

2. The intervention agency shall check the quality of the stored product at least once a year. Samples for that purpose may be taken when the inventory is established as provided for in Article 4 of Regulation (EC) No 2148/96.

Article 11

The intervention agencies shall, where necessary, adopt additional procedures and conditions for taking over, compatible with this Regulation, to take account of any special conditions existing in the Member State in question; in particular, they may request periodic stock returns.

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Article 12

Regulations (EEC) No 689/92 and (EEC) No 1908/84 are hereby repealed with effect from 1 July 2000.

Article 13

This Regulation shall enter into force on the seventh day following its publication in the *Official Journal of the European Communities*.

It shall apply from 1 July 2000.

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

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ANNEX I

	Durum wheat	Common wheat	Rye	Barley	Maize	Sorghum
A. Maximum moisture content	14,5%	14,5%	14,5%	14,5%	14,5%	14,5 %
B. Maximum percentage of matter which is not basic cereal of unimpaired quality:	12 %	12 %	12 %	12 %	12 %	12 %
1. Broken grains	6 %	5 %	5 %	5 %	10 %	10 %
2. Impurities consisting of grains (other than indicated at 3)	5 %	7 %	5 %	12 %	5 %	5 %
of which:						
(a) shrivelled grains					—	—
(b) other cereals	3 %			5 %		
(c) grains damaged by pests						
(d) grains in which the germ is discoloured			—	—	—	—
(e) grains overheated during drying	0,50%	0,50%	1,5 %	3 %	3 %	3 %
3. Mottled grains and/or grains affected with fusariosis	5 %	—	—	—	—	—
of which:						
— grains affected with fusariosis	1,5 %	—	—	—	—	—
4. Sprouted grains	4 %	4 %	4 %	6 %	6 %	6 %
5. Miscellaneous impurities (Schwarzbesatz)	3 %	3 %	3 %	3 %	3 %	3 %
of which:						
(a) extraneous seeds:						
— noxious	0,10%	0,10%	0,10%	0,10%	0,10%	0,10 %
— other						
(b) damaged grains:						
— grains damaged by spontaneous heating or too extreme heating during drying	0,05%	0,05%				
— other						
(c) extraneous matter						
(d) husks						
(e) ergot	0,05%	0,05%	0,05%	—	—	—
(f) decayed grains			—	—	—	—
(g) dead insects and fragments of insects						
C. Maximum percentage of wholly or partially piebald grains	27 %	—	—	—	—	—
D. Maximum tannin content ([1])	—	—	—	—	—	1 %
E. Minimum specific weight (kg/hl)	78	73	70	62	—	—
F. Minimum protein content ([1]):						
— 2000/2001 marketing year	11,5%	10 %	—	—	—	—
— 2001/2002 marketing year	11,5%	10,3%	—	—	—	—
— 2002/2003 onwards	11,5%	10,5%				
G. Hagberg falling number (seconds)	220	220	120			

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	Durum wheat	Common wheat	Rye	Barley	Maize	Sorghum
H. Minimum Zeleny index (ml)	—	22	—	—	—	—

(1) As % of dry matter.

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ANNEX II

1. **DEFINITION OF MATTER OTHER THAN BASIC CEREALS OF UNIMPAIRED QUALITY**

1.1. **Broken grains**

All grains whose endosperm is partially uncovered shall be regarded as broken grains. Grains damaged by threshing and grains from which the germ has been removed also belong to this group.

For maize, 'broken grains' means pieces of grain or grains which pass through a sieve with a circular mesh 4,5 mm in diameter.

For sorghum, 'broken grains' means pieces of grain or grains which pass through a sieve with a circular mesh 1,8 mm in diameter.

1.2. **Grain impurities**

(a) *Shrivelled grains:*

grains which, after elimination from the sample of all other matter referred to in this Annex, pass through sieves with apertures of the following dimensions: common wheat 2,0 mm, rye 1,8 mm, durum wheat 1,9 mm, barley 2,2 mm.

Notwithstanding this definition, however:

— for barley from Finland or Sweden with a specific weight of at least 64 kilograms per hectolitre offered for intervention in those Member States, or

— for barley with a moisture content of 12,5 % or less,

'shrivelled grains' means grains which, after elimination of all other matter referred to in this Annex, pass through sieves with apertures of 2,0 mm.

In addition, grains damaged by frost and unripe grains (green) belong to this group.

(b) *Other cereals:*

all grains which do not belong to the species of grain sampled.

(c) *Grains damaged by pests:*

grains which have been nibbled. Bug-ridden grains also belong to this group.

(d) *Grains in which the germ is discoloured, mottled grains, grains affected with fusariosis:*

grains in which the germ is discoloured are those of which the tegument is coloured brown to brownish black and of which the germ is normal and not sprouting. For common wheat, grains in which the germ is discoloured shall be disregarded up to 8 %.

For durum wheat:

— grains which show a brown to brownish black discoloration elsewhere than on the germ itself shall be considered as mottled grains,

— grains affected with fusariosis are grains whose pericarp is contaminated with *Fusarium mycelium*; such grains look slightly shrivelled, wrinkled and have pink or white diffuse patches with an ill-defined outline.

(e) Grains overheated during drying are those which show external signs of scorching but which are not damaged grains.

1.3. **Sprouted grains**

Sprouted grains are those in which the radicle or plumule is clearly visible to the naked eye. However, account must be taken of the general appearance of the sample when its content, of sprouted grains is assessed. In some kinds of cereals the germ is protuberant, e.g. in durum wheat, and the germ tegument splits when the batch of cereals is shaken. These grains resemble sprouted grains but must not be included in that group. Sprouted grains are only those where the germ has undergone clearly visible changes which make it easy to distinguish the sprouted grain from the normal grain.

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1.4. **Miscellaneous impurities (Schwarzbesatz)**

(a) *Extraneous seeds*

'Extraneous seeds' are seeds of plants, whether or not cultivated, other than cereals. They include seeds not worth recovering, seeds which can be used for livestock and noxious seeds.

'Noxious seeds' means seeds which are toxic to humans and animals, seeds hampering or complicating the cleaning and milling of cereals and seeds affecting the quality of products processed from cereals.

(b) *Damaged grains*

'Damaged grains' are those rendered unfit for human consumption and, as regards feed grain, for consumption by cattle, owing to putrefaction, midlew, or bacterial or other causes.

Damaged grains also include grains damaged by spontaneous heat generation or too extreme heating during drying. These 'heated' or 'smutty' grains are fully grown grains in which the tegument is coloured greyish brown to black, while the cross-section of the kernel is coloured yellowish-grey to brownish-black.

Grains attacked by wheat midge shall be considered damaged grains only when more than half the surface of the grain is coloured grey to black as a result of secondary cryptogamic attack. Where discoloration covers less then half the surface of the grain, they must be classed with grains damaged by pests.

(c) *Extraneous matter*

All matter in a sample of cereals retained by a sieve with apertures of 3,5 mm, (with the exception of grains of other cereals and particulary large grains of the basic cereal) and that passing through a sieve with apertures of 1,0 mm shall be considered extraneous matter. Also included are stones, sand, fragments of straw and other impurities in the samples which pass through a sieve with apertures of 3,5 mm and are retained by a sieve with apertures of 1,0 mm.

This definition does not apply to maize. For maize, all matter in a sample which passes through a sieve with apertures of 1 mm shall be considered extraneous matter, in addition to that referred to in the first subparagraph.

(d) Husks (for maize: cob fragments).

(e) Ergot.

(f) Decayed grains.

(g) Dead insects and fragments of insects.

1.5. **Live pests**

1.6. **Piebald grains which have lost their vitreous aspect (mitadiné or piebald)**

Mitadiné grains of durum wheat are grains whose kernel cannot be regarded as entirely vitreous.

2. **SPECIFIC FACTORS TO TAKE INTO CONSIDERATION FOR EACH TYPE OF CEREAL FOR THE DEFINITION OF IMPURITIES**

2.1. **Durum wheat**

Grain impurities means shrivelled grains, grains of other cereals, grains damaged by pests, grains in which the germ is discoloured, mottled grains of grains affected with fusariosis and grains overheated during drying.

Miscellaneous impurities means extraneous seeds, damaged grains, extraneous matter, husks, ergot, decayed grains, dead insects and fragments of insects.

2.2. **Common wheat**

Grain impurities means shrivelled grains, grains of other cereals, grains damaged by pests, grains in which the germ is discoloured and grains overheated during drying.

▼B

Miscellaneous impurities means extraneous seeds, damaged grains, extraneous matter, husks, ergot decayed grains, dead insects and fragments of insects.

2.3. **Rye**

Grain impurities means shrivelled grains, grains of other cereals, grains damaged by pests and grains overheated during drying.

Miscellaneous impurities means extraneous seeds, damaged grains, extraneous matter, husks, ergot, dead insects and fragments of insects.

2.4. **Barley**

Grain impurities means shrivelled grains, grains of other cereals, grains damaged by pests and grains overheated during drying.

Miscellaneous impurities means extraneous seeds, damaged grains, extraneous matter, husks, dead insects and fragments of insects.

2.5. **Maize**

Grain impurities means grains of other cereals, grains damaged by pests and grains overheated during drying.

For maize, all matter in a sample which passes through a sieve with apertures of 1,0 mm shall be considered extraneous matter.

All extraneous seeds, damaged grains, extraneous matter, husks, dead insects and fragments of insects shall be considered miscellaneous impurities.

2.6. **Sorghum**

Grain impurities means grains of other cereals, grains damaged by pests and grains overheated during drying.

Miscellaneous impurities means extraneous seeds, damaged grains, extraneous matter, husks, dead insects and fragments of insects.

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ANNEX III

STANDARD METHOD FOR DETERMINING MATTER OTHER THAN BASIC CEREALS OF UNIMPAIRED QUALITY

1. For common wheat, durum wheat, rye and barley, an average sample of 250 g is passed through two sieves, one with slotted perforations of 3,5 mm and the other with slotted perforations of 1,0 mm, for half a minute each.

   In order to ensure constant sifting, it is advisable to use a mechanical sieve, e.g. a vibrating table with fitted sieves.

   The matter retained by the sieve with slotted perforations of 3,5 mm and that passing through the sieve with slotted perforations of 1,0 mm must be weighted together and regarded as extraneous matter. Where the matter retained by the sieve with slotted perforations of 3,5 mm includes parts in the 'other cereals' group or particularly large grains of the basic cereal, those parts or grains shall be returned to the sifted sample. During sifting, in the sieve with slotted perforations of 1,0 mm, a close check must be made for live pests.

   From the sifted sample, a sample of 50 to 100 g shall be taken using a separator. This partial sample must be weighed.

   The partial sample should then be spread out on a table with tweezers or a horn spatula and broken grains, other cereals, sprouted grains, grains damaged by pests, grains damaged by frost, grains in which the germ is discoloured, mottled grains, extraneous seeds, ergots, damaged grains, decayed grains, husks and live pests and dead insects must be extracted.

   Where the partial sample includes grains still in the husk, they shall be husked by hand, the husks obtained being considered as pieces of husks. Stones, sand and fragments of straw shall be considered extraneous matter.

   The partial sample shall be sifted for half a minute in a sieve with slotted perforations of 2,0 mm for common wheat, 1,8 mm for rye, 1,9 mm for durum wheat, 2,2 mm for barley. Matter which passes through this sieve shall be considered as shrivelled grains. Grains damaged by frost and unripe green grains belong to the 'shrivelled grains' group.

2. An average sample of 500 g in the case of maize and 250 g for sorghum, in shaken for half a minute in a sieve which has slotted perforations of 1,0 mm. Check for the presence of live pests and dead insects.

   Using tweezers or a horn spatula, extract from the matter retained by the sieve with slotted perforations of 1,0 mm stones, sand, fragments of straw and other extraneous matter.

   Add the extraneous matter thus extracted to the matter which has passed through the sieve with slotted perforations of 1,0 mm and weigh them together.

   Using a separator, prepare a partial sample of 100 to 200 g in the case of maize or 25 to 50 g for sorghum from the sample passed through the sieve. Weigh this partial sample. Spread it out in a thin layer on a table. Using tweezers or a horn spatula, extract the pieces of other cereals, grains damaged by pests, grains damaged by frost, sprouted grains, extraneous seeds, damaged grains, husks, live pests and dead insects.

   Next, pass this partial sample through a sieve with a 4,5 mm round mesh for maize and 1,8 mm round mesh for sorghum. The matter which passes through this sieve shall be considered as broken grains.

3. Groups of matter other than basic cereals of unimpaired quality, determined according to the methods referred to in 1 and 2 must be weighted very carefully to the nearest 0,01 g and distributed according to percentage over the average sample. The particulars entered in the analysis report shall be to the nearest 0,1 %. Check for live pests.

   As a general rule, two analyses must be made for each sample. They must not differ by more than 10 % in respect of the total of the abovementioned matter.

4. The apparatus to be used for the operations referred to in 1, 2 and 3 is as follows:

   (a) sample separator, e.g. a conical or grooved apparatus;

   (b) precision or assay balance;

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(c) sieves with slotted perforations of 1,0 mm, 1,8 mm, 1,9 mm, 2,0 mm, 2,2 mm and 3,5 mm and sieves with a 1,8 mm and 4,5 mm round mesh. The sieves may be fitted to a vibrating table.

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ANNEX IV

STANDARD METHOD OF TESTING FOR MOISTURE CONTENT

1. **Principle**

The product is dried at a temperature of 130 to 133 ºC under normal atmospheric pressure, for a period appropriate to the size of the particles.

2. **Scope**

This drying method applies to cereals crushed into particles of which at least 50 % pass through a sieve with 0,5 mm mesh and leave not more than 10 % residue on the sieve with a 1,0 mm round mesh. It also applies to flour.

3. **Apparatus**

Precision balance.

Crusher made of a material which does not absorb moisture, is easy to clean, enables crushing to be effected quickly and evenly without overheating, limits contact with the outside air to the minimum, and meets the requirements mentioned in 2 (e.g. a detachable roller mill).

Receptacle made of non-corrodible metal or glass, fitted with a sufficiently tight-fitting lid; working surface allowing distribution of the test sample at 0,3 g per cm^2.

Electrically heated isothermic heating chamber, set at a temperature of 130 to 133 ºC ([1]) having adequate ventilation ([2]).

Dessicator with a metal or, failing metal, porcelain plate (thick, perforated), containing any suitable dessicant.

4. **Procedure**

Drying

Weigh to the nearest 1 mg a quantity slightly greater than 5 g of the crushed small-grained cereals or 8 g of the crushed maize in the pre-weighed receptable. Place the receptacle in a heating chamber heated to a temperature of 130 to 133 ºC. This should be done as quickly as possible, so as to prevent too great a drop in temperature. Leave small-grained cereals to dry for two hours and maize for four hours after the heating chamber regains a temperature of 130 to 133 ºC. Remove the receptacle from the heating chamber, quickly replace the lid, leave to cool for 30 to 45 minutes in a dessicator and weigh (to the nearest 1 mg).

5. **Method of calculation and formulae**

E = the initial mass, in grams, of the test sample

M = the mass, in grams, of the test sample after preparation

M′ = the mass, in grams, of the test sample after crushing

m = the mass, in grams, of the dry test sample.

The moisture content as a percentage of the product is equal to:

— without previous preparation (E - m) × 100/E,

— with previous preparation

$$((M' - m)M/M' + E - M) \times 100/E = 100\ (1 - Mm/EM')$$

Tests to be made in duplicate at least.

([1]) Air temperatures inside the heating chamber.

([2]) Its heating capacity should be such that, when it has been pre-set to a temperature of 130 to 133 ºC, that temperature can be regained in less than 45 minutes after the maximum number of test samples have been placed in the chamber to dry simultaneously.
Ventilation should be such that, when small-grained cereals (common wheat, durum wheat, barley, sorghum and rye) are dried for two hours and maize for four hours, the results from all the test samples of semolina or, as the case may be, maize that the heating chamber can hold differ by less than 0,15 % from the results obtained after drying small - grained cereals for three hours and maize for five hours.

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6. **Repetition**

The difference between the values obtained from the two determinations carried out simultaneously or in rapid succession by the same analyst shall not exceed 0,15 g of moisture per 100 g of sample. If it does so, the determinations shall be repeated.

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ANNEX V

METHOD FOR DETERMINING THE NON-STICKINESS AND MACHINABILITY OF THE DOUGH OBTAINED FROM COMMON WHEAT

1. **Title**

Method for test baking of wheat flour.

2. **Scope**

The method is applicable to flour, experimentally milled from wheat for the production of yeast-raised bread.

3. **Principle**

A dough is made from flour, water, yeast, salt and sucrose, in a specified mixer. After dividing and rounding, the pieces are given 30 minutes' rest; they are moulded, placed on baking sheets and baked after a final proof of fixed duration. Dogh-handling properties are noted. The loaves are judged by volume and height.

4. **Ingredients**

4.1. *Yeast*

Active dry yeast of type *Saccharomyces cerevisiae* DHW-Hamburg-Wansbeck or a product having the same characteristics.

4.2. *Tap water*

4.3. *Sugar-salt-ascorbic acid solution*

Dissolve 30 ± 0,5 g of sodium chloride (commercial grade), 30 ± 0,5 g of sucrose (commercial grade), and 0,040 ± 0,001 g ascorbic acid in 800 ± 5 g of water. Prepare fresh daily.

4.4. *Sugar solution*

Dissolve 5 ± 0,1 g sucrose (commercial grade) in 95 ± 1 g of water. Prepare fresh daily.

4.5. *Enzyme active malt flour*

Commercial grade.

5. **Equipment and apparatus**

5.1. *Baking room*

Controlled to maintain a temperature of 22 to 25 ºC.

5.2. *Refrigerator*

For maintaining a temperature of 4 ± 2 ºC.

5.3. *Balance*

Maximum load 2 kg, accuracy 2 g.

5.4. *Balance*

Maximum load 0,5 kg, accuracy 0,1 g.

5.5. *Analytical balance*

Accuracy $0{,}1 \times 10^{-3}$ g.

5.6. *Mixer*

Stephan UMTA 10, with mixing arm model 'Detmold' (Stephan Soehne GmbH) or similar equipment having the same characteristics.

5.7. *Proving cabinet*

Controlled to maintain a temperature of 30 ± 1 ºC.

5.8. *Open plastic boxes*

Made from polymethylmethacrylate (Plexiglas, Perspex). Inside dimensions: 25 × 25 × 15 cm height, wall thickness 0,5 ± 0,05 cm.

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5.9. *Square plastic sheets*

Made from polymethylmethacrylate (Plexiglas, Perspex). At least 30 × 30 cm, thickness 0,5 ± 0,05 cm.

5.10. *Moulder*

Brabender ball homogeniser (Brabander OHG) or similar equipment having the same characteristics.

6. **Sampling**

According to ICC Standard No 101.

7. **Procedure**

7.1. *Determination of water uptake*

Determine the water absorption according to ICC Standard No 115/1.

7.2. *Determination of malt flour addition*

Determine the 'falling number' of the flour according to ISO 3093-1982. If the 'falling number' is higher than 250, determine the malt flour addition requried to bring it within the range 200 to 250, using a series of mixtures of the flour with increasing quantities of malt flour (4.5). If the 'falling number' is lower than 250, no malt flour is required.

7.3. *Reactivation of active dry yeast*

Adjust the temperature of the sugar solution (4.4) to 35 ± 1 ºC. Pour one part by weight of the active dry yeast into four parts by weight of this tempered sugar solution. Do not stir. Swirl if necessary.

Allow to stand for 10 ± 1 minute, then stir until a homogeneous suspension is obtained. Use this suspension within 10 minutes.

7.4. *Temperature adjustment of the flour and the dough liquid*

The temperature of the flour and the water must be adjusted to give a dough temperature of 27 ± 1 ºC after mixing.

7.5. *Dough composition*

Weigh, with a precision of 2 g, 10 y/3 g flour on as-is moisture basis (corresponding to 1 kg flour on a 14 % moisture basis), in which 'y' is the quantity of flour used in the farinograph test (see ICC Standard No 115, clause 9.1). Weigh, with a precision of 0,2 g, the quantity of malt flour necessary to bring the 'falling number' within the range 200 to 250 (7.2).

Weigh 430 ± 5 g sugar-salt-ascorbic acid solution (4.3) and add water to a total mass of (x–9) 10 y/3 g, (see 10.2) in which 'x' is the quantity of water used in the farinograph test (see ICC Standard No 115, clause 9.1). This total mass (usually between 450 and 650 g) must be achieved with a precision of 1,5 g.

Weigh 90 ± 1 g yeast suspension (7.3).

Note the total mass of the dough (P), which is the sum of the masses of flour, sugar-salt-ascorbic acid solution plus water, yeast suspension and malt flour.

7.6. *Mixing*

Before starting, bring the mixer to a temperature of 27 ± 1 ºC by use of a suitable quantity of tempered water.

Place the liquid dough ingredients in the mixer and place the flour plus malt flour on top.

Start the mixer (speed 1, 1 400 rev/min), and allow to run for 60 seconds. Twenty seconds after the start of mixing, turn the scraper attached to the lid of the mixing bowl two revolutions.

Measure the temperature of the dough. If it is outside the range 26 to 28 ºC, discard the dough and mix a new one after adjustment of ingredient temperatures.

Note dough properties using one of the following terms:

— non-sticky and machinable, or

— sticky and non-machinable. To be considered as 'non-sticky and machinable' at the end of mixing, the dough should form a coherent mass which hardly adheres to the sides of the bowl and spindle of

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the mixer. It should be possible to collect the dough by hand and remove it from the mixing bowl in a single motion without noticeable loss.

7.7. *Dividing and rounding*

Weigh, with precision of 2 g, three pieces of dough according to the formula:

p = 0,25 P, where:

p = mass of scaled dough piece

p = total mass of dough.

Immediately round the pieces for 15 seconds in the moulder (5.10) and place them for 30 ± 2 minutes on the square plastic sheets (5.9), covered by the inverted plastiuc boxes (5.8) in the proving cabinet (5.7).

Do not use dusting flour.

7.8. *Moulding*

Bring the pieces of dough on the plastic sheets, covered by the inverted boxes, to the moulder (5.10), and re-round each piece for 15 seconds. Dot not remove cover from a piece of dough until immediately before rounding. Note dough properties again, using one of the following terms:

— non-sticky and machinable, or

— sticky and non-machinable.

To be considered as 'non-sticky and machinable' the dough should adhere hardly, or not at all, to the sides of the chamber so that it can freely rotate around itself and form a regular ball during the operation of the machine. At the end of the operation the dough should not stick to the sides of the dough-moulding chamber when the lid of the chamber is raised.

(7.9; 7.10; 8.)

9. **Test report**

The test report should mention:

— dough-handling properties at the end of mixing, and at moulding,

— the 'falling number' of the flour without addition of malt flour,

— any anomalies observed.

It should further include:

— the method used,

— all details required for the identification of the sample.

10. **General remarks**

10.1.

10.2. The formula for the calculation of the quantity of dough liquid is based on the following considerations:

Addition of x ml water to the equivalent of 300 g flour at 14 % moisture produces the required consistency. As in the baking test 1 kg of flour (14 % moisture basis) is used, whereas x is based on 300 g of flour, for the baking test x divided by three and multiplied by 10 g of water is needed, so 10 x/3 g.

The 430 g sugar-salt-ascorbic acid solution contains 15 g salt and 15 g sugar. This 430 g solution is included in the dough liquid. So to add 10 x/3 g water to the dough, (10 x/3 + 30) g dough liquid composed of the 430 g sugar-salt-ascorbic acid solution and an additional quantity of water must be added.

Although part of the water added with the yeast suspension is absorbed by the yeast, this suspension also contains 'free' water. It is arbitrarily supposed that 90 g yeast suspension contains 60 g 'free' water. The quantity of the dough liquid must be corrected for this 60 g of 'free' water in the yeast suspension, so 10 x/3 plus 30 minus 60 g must finally be added. This can be rearranged as follows: (10 x3 + 30) – 60 = 10 x/3 – 30 = (x/3 – 3) 10 = (x – 9) 10/3, the formula given in clause 7.5. If, e.g., a water addition x in the farinograph test was found of 165 ml, this value must be substituted in this formula, so to the 430 g sugar-salt-ascorbic acid solution water must be added to a total mass of:

(165 - 9) 10/3 = 156 × 10/3 = 520 g.

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10.3. The method is not directly applicable to wheat. The procedure to be followed for characterising the baking properties of wheat is as follows:

Clean the wheat, and determine the moisture content of the cleaned wheat. If the moisture content is within the range 15,0 % to 16,0 %, do not temper the wheat. If the moisture content is outside this range, adjust the moisture content to 15,5 ± 0,5 %, at least three hours prior to milling.

Mill the wheat into flour using a Buehler laboratory mil MLU 202 or a Brabender Quadrumat Senior mill or similar equipment having the same characteristics.

Choose a milling procedure that yields a flour of minimum 72 % extraction, with an ash content of 0,50 to 0,60 % on dry matter basis.

Determine the ash content of the flour according to Annex I to Commission Regulation (EC) No 1501/95 (OJ L 147, 30.6.1995, p. 7) and the moisture content according to this Regulation. Calculate the extraction rate by the equation:

$E = (((100 - f)\ F)/(100 - w)\ W) \times 100\ \%$

where

E = extraction rate

f = moisture of the flour

w = moisture content of the wheat

F = mass of flour produced with moisture content f

W = mass of wheat milled with moisture content w.

Note: Information concerning the ingredients and equipment to be used is published in Document T 77/300 of 31 March 1977 from the Instituut voor Graan, Meel en Brood, TNO — Postbus 15, Wageningen, Netherlands.

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ANNEX VI

DETERMINATION OF THE RATE OF LOSS OF VITREOUS ASPECT

1. **Principle**

Only part of the sample is used to determine the percentage of grains which have wholly or partially lost their vitreous aspect. The grains are cut using a Pohl grain cutter or an equivalent instrument.

2. **Equipment and apparatus**

— Pohl grain cutter or equivalent instrument,

— tweezers, scalpel,

— tray or dish.

3. **Procedure**

(a) The determination is carried out on a sample of 100 g after separation of any matter other than basic cereals of unimpaired quality.

(b) Spread the sample on a tray and homogenise well.

(c) Insert a plate in the grain cutter and spread a handful of grains on the grid. Tap firmly to ensure that there is only one grain in each hole. Lower the moveable section to hold the grains in place and then cut them.

(d) Prepare sufficient plates to ensure that a minimum of 600 grains are cut.

(e) Count the number of grains which have wholly or partially lost their vitreous aspect (‘mitadiné’).

(f) Calculate the percentage of grains which have wholly or partially lost their vitreous aspect (‘mitadiné’).

4. **Expression of results**

I = mass, in grams, of matter other than basic cereals of unimpaired quality.

M = percentage of cleaned grains examined which have wholly or partially lost their vitreous aspect (‘mitadiné’).

5. **Result**

The percentage of grains which have wholly or partially lost their vitreous aspect (‘mitadiné’) in the test portion is:

$(M \times (100 - I)]/100 = \ldots$

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ANNEX VII

TABLE I

Price increases for moisture content

Moisture content (%)	Price increase (EUR/t)
13,4	0,1
13,3	0,2
13,2	0,3
13,1	0,4
13,0	0,5
12,9	0,6
12,8	0,7
12,7	0,8
12,6	0,9
12,5	1,0
12,4	1,1
12,3	1,2
12,2	1,3
12,1	1,4
12,0	1,5
11,9	1,6
11,8	1,7
11,7	1,8
11,6	1,9
11,5	2,0
11,4	2,1
11,3	2,2
11,2	2,3
11,1	2,4
11,0	2,5
10,9	2,6
10,8	2,7
10,7	2,8
10,6	2,9
10,5	3,0
10,4	3,1
10,3	3,2
10,2	3,3
10,1	3,4
10,0	3,5

TABLE II

Price reductions for moisture content

Moisture content (%)	Price reduction (EUR/t)
14,5	1,0
14,4	0,8
14,3	0,6

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Moisture content (%)	Price reduction (EUR/t)
14,2	0,4
14,1	0,2

TABLE III

Price reductions for specific weight

Cereal	Specific weight (kg/hl)	Price reduction (EUR/t)
Common wheat	less than 76 to 75	0,5
	less than 75 to 74	1,0
	less than 74 to 73	1,5
Barley	less than 64,0 to 62,0	1,0

TABLE IV

Price reductions for protein content

(EUR/t)

Protein content (1) (N × 5,7)	Marketing year 2000/2001	Marketing year 2001/2002	Marketing year 2002/2003 onwards
less than 11,5 to 11,0	1,5	2,0	2,5
less than 11,0 to 10,5	3,0	4,0	5
less than 10,5 to 10,3	5,0	5,0	
less than 10,3 to 10,0	5,0		

(1) As % of dry matter.

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ANNEX VIII

Practical method for determining the reduction to be applied to the price of sorghum by intervention agencies

1. *Basic data*

   P = the percentage of tannin in raw product

   0,4 % = the percentage of tannin above to which the reduction is to be applied

   11 % ([1]) = the reduction corresponding to 1 % tannin in the dry matter

2. *Calculation of the reduction*

   The reduction, expressed in euro to be applied to the intervention price, shall be calculated in accordance with the following formula:

$$11\ (P - 0{,}40)$$

([1]) Reduction to be applied to the price of sorghum on the basis of the tannin content of 1 000 g of dry matter:

(a) Poultry-metabolisable energy of 1 000 g of sorghum dry matter with a theoretical tannin content of 0 %: 3 917 K calories.

(b) Reduction of the poultry-metabolisable energy of 1 000 g of sorghum dry matter per additional percentage point of tannin: 419 K calories.

(c) Difference, expressed in percentage points, between the maximum tannin content laid down for sorghum accepted for intervention and the tannin content laid down for the standard quality: 1,0 – 0,30 = 0,70.

(d) Difference, expressed as a percentage, between the poultry-metabolisable energy of sorghum containing 1,0 % tannin and the poultry-metabolisable energy of sorghum with the same tannin content as the standard quality (0,30 %):

$$100 - \left(\frac{3\,917 - (419 \times 1{,}0)}{3\,917 - (419 \times 0{,}30)} \times 100 \right) = 7{,}74\ \%$$

(e) Reduction corresponding to a 1 % tannin content in the dry matter, in excess of 0,30 %

$$\frac{7{,}74}{0{,}70} = \text{EUR}\ \ 11$$