

[^{F1}ANNEX I U.K.]**METHODS OF SAMPLING****Textual Amendments**

- F1** Substituted by [Commission Regulation \(EU\) No 691/2013 of 19 July 2013 amending Regulation \(EC\) No 152/2009 as regards methods of sampling and analysis \(Text with EEA relevance\)](#).

1. PURPOSE AND SCOPE U.K.

Samples intended for the official control of feed shall be taken according to the methods described below. Samples thus obtained shall be considered as representative of the sampled portions.

The purpose of representative sampling is to obtain a small fraction from a lot in such a way that a determination of any particular characteristic of this fraction will represent the mean value of the characteristic of the lot. The lot shall be sampled by repeatedly taking incremental samples at various single positions in the lot. These incremental samples shall be combined by mixing to form an aggregate sample from which representative final samples shall be prepared by representative dividing.

If by a visual inspection, portions of the feed to be sampled show a difference in quality from the rest of the feed from the same lot, such portions shall be separated from the rest of the feed and treated as a separate subplot. If it is not possible to divide the feed into separate sublots, the feed shall be sampled as one lot. In such cases, mention shall be made of this fact in the sampling report.

Where a feed sampled in accordance with the provisions of this Regulation is identified as not satisfying EU requirements, is part of a lot of feed of the same class or description, it shall be presumed that all of the feed in that lot is so affected, unless following a detailed assessment there is no evidence that the rest of the lot fails to satisfy the EU requirements.

2. DEFINITIONS U.K.

- Lot (or batch) : an identified quantity of feed determined to have common characteristics, such as origin, variety, type of packaging, packer, consignor or labelling, and in case of a production process, a unit of production from a single plant using uniform production parameters or a number of such units, when produced in continuous order and stored together.
- Sampled portion : A lot or an identified part of the lot or subplot.
- Sealed sample : a sample sealed in such a manner as to prevent any access to the sample without breaking or removing the seal.
- Incremental sample : A quantity taken from one point in the sampled portion.
- Aggregate sample : An aggregate of incremental samples taken from the same sampled portion.
- Reduced sample : A part of the aggregate sample, obtained from the latter by a process of representative reduction.
- Final sample : A part of the reduced sample or of the homogenised aggregate sample.
- Laboratory sample : a sample intended for the laboratory (as received by the laboratory) and can be the final, reduced or aggregate sample.

3. GENERAL PROVISIONS U.K.

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- Sampling personnel: the samples shall be taken by persons authorised for that purpose by the competent authority.
- The sample has to be sealed in such a manner as to prevent any access to the sample without breaking or removing the seal. The seal's mark should be clearly identifiable and clearly visible. Alternatively, the sample can be put in a recipient which can be closed in such a manner that it cannot be opened without irreversibly damaging the receptacle or container, avoiding the re-use of the receptacle or container.
- Identification of the sample: the sample has to be indelibly marked and must be identified in such a way that there is an unambiguous link to the sampling report.
- From each aggregate sample at least two final samples are taken: at least one for control (enforcement) and one for the feed business operator (defence). Eventually, one final sample may be taken for reference. In case the complete aggregate sample is homogenized, the final samples are taken from the homogenized aggregate sample, unless such procedure conflicts with Member States' rules as regards the right of the feed business operator.

4. APPARATUS **U.K.**

4.1. The sampling apparatus must be made of materials which cannot contaminate the products to be sampled. Apparatus which is intended to be used multiple times must be easy to clean to avoid any cross-contamination.

4.2. **Apparatus recommended for the sampling of solid feed** **U.K.**

4.2.1. *Manual sampling* **U.K.**

4.2.1.1. Flat-bottomed shovel with vertical sides **U.K.**

4.2.1.2. Sampling spear with a long split or compartments. The dimensions of the sampling spear must be appropriate to the characteristics of the sampled portion (depth of container, dimensions of sack, etc.) and to the particle size of the feed.

In case the sampling spear has several apertures, in order to ensure that the sample is taken at the different locations alongside the spear, the apertures should be separated by compartments or sequentially staggered apertures.

4.2.2. *Mechanical sampling* **U.K.**

Appropriate mechanical apparatus may be used for the sampling of moving feed. Appropriate means that at least the whole section of the flow is sampled.

Sampling of feed in motion (at high flow rates) can be performed by automatic samplers.

4.2.3. *Divider* **U.K.**

If possible and appropriate, apparatus designed to divide the sample into approximately equal parts should be used for the preparation of reduced samples in a representative way.

5. QUANTITATIVE REQUIREMENTS AS REGARDS NUMBER OF INCREMENTAL SAMPLES **U.K.**

- The quantitative requirements in points 5.1 and 5.2 as regards the number of incremental samples are applicable for sampled portion sizes up to a maximum of 500 tonnes and which can be sampled in a representative way. The sampling procedure described is equally valid for quantities larger than prescribed maximum sampled portion size provided that the maximum number of incremental samples given in the tables below is ignored, the number of incremental samples being determined by the

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square-root formula given in the appropriate part of the procedure (see point 5.3) and the minimum aggregate sample size increased proportionally. This does not prevent a large lot being divided into smaller sublots and each subplot sampled in accordance with the procedure described in points 5.1 and 5.2.

- The size of the sampled portion must be such that each of its constituent parts can be sampled.
- For very large lots or sublots (> 500 tonnes) and for lots which are transported or stored in such a way that sampling cannot be done in accordance with the sampling procedure provided for in points 5.1 and 5.2 of this chapter, the sampling procedure as provided for in point 5.3 is to be applied.
- In case the feed business operator is required by legislation to comply with this Regulation within the frame of a mandatory monitoring system, the feed business operator may deviate from the quantitative requirements as provided for in this chapter to take into account operational characteristics on the condition that the feed business operator has demonstrated to the satisfaction of the competent authority the equivalence of the sampling procedure as regards representativeness and after authorisation from the competent authority.
- In exceptional cases, if it is not possible to carry out the method of sampling set out as regards the quantitative requirements because of the unacceptable commercial damage to the lot (because of packaging forms, means of transport, way of storage etc.) an alternative method of sampling may be applied provided that it is as representative as possible and is fully described and documented.

5.1. **Quantitative requirements as regards incremental samples in relation to the control of substances or products uniformly distributed throughout the feed** U.K.

5.1.1. *Loose solid feed* U.K.

Size of sampled portion	Minimum number of incremental samples
≤ 2,5 tonnes	7
> 2,5 tonnes	√ 20 times the number of tonnes making up the sampled portion ^a , up to 40 incremental samples

^a Where the number obtained is a fraction, it shall be rounded up to the next whole number.

5.1.2. *Loose liquid feed* U.K.

Size of sampled portion	Minimum number of incremental samples
≤ 2,5 tonnes or ≤ 2 500 litres	4 ^a
> 2,5 tonnes or > 2 500 litres	7 ^a

^a In case it is not possible to make the liquid homogeneous, the number of incremental samples has to be increased.

5.1.3. *Packaged feed* U.K.

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Feed (solid and liquid) can be packaged in bags, sacks, cans, barrels etc. which are referred to in the table as units. Large units (≥ 500 kg or litres) have to be sampled in accordance with the provisions foreseen for loose feed (see points 5.1.1 and 5.1.2).

Size of sampled portion	Minimum number of units from which (at least) one incremental sample has to be taken ^a
1 to 20 units	1 unit ^b
21 to 150 units	3 units ^b
151 to 400 units	5 units ^b
> 400 units	$\frac{1}{4}$ of the $\sqrt{}$ number of units making up the sampled portion ^c , up to 40 units

a In the case where opening of an unit might affect the analysis (e.g. perishable wet feeds) an incremental sample shall be the unopened unit.

b For units whose contents do not exceed 1 kg or one litre, an incremental sample shall be the contents of one original unit.

c Where the number obtained is a fraction, it shall be rounded up to the next whole number.

5.1.4. Feed blocks and mineral licks **U.K.**

Minimum one block or lick to be sampled per sampled portion of 25 units, up to a maximum of four blocks or licks.

For blocks or licks weighing not more than 1 kg each, an incremental sample shall be the contents of one block or one lick.

5.1.5. Roughages/forage **U.K.**

Size of sampled portion	Minimum number of incremental samples ^a
≤ 5 tonnes	5
> 5 tonnes	$\sqrt{}$ 5 times the number of tonnes making up the sampled portion ^b , up to 40 incremental samples

a It is acknowledged that in certain situations (e.g. silages) it is not possible to take the required incremental samples, without causing unacceptable damage to the lot. An alternative method of sampling may be applied in such situations and a guidance for sampling such lots will be elaborated before the entry into application of this Regulation.

b Where the number obtained is a fraction, it shall be rounded up to the next whole number.

5.2. Quantitative requirements as regards incremental samples in relation to the control of constituents or substances likely to be distributed non-uniformly in feed **U.K.**

These quantitative requirements as regards incremental samples are to be used in the following situations:

- control of aflatoxins, rye ergot, other mycotoxins and harmful botanical impurities in feed materials;

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- control of cross contamination by a constituent, including GM material, or substance for which non-uniform distribution is expected in feed materials.

In case the control authority has strong suspicion that such a non-uniform distribution occurs also in case of cross contamination by a constituent or substance in a compound feed, the quantitative requirements as provided for in the table below can be applied.

Size of sampled portion	Minimum number of incremental samples
< 80 tonnes	See quantitative requirements under point 5.1. The number of incremental samples to be taken has to be multiplied by 2,5.
≥ 80 tonnes	100

5.3. Quantitative requirements as regards the incremental samples in the case of very large lots **U.K.**

In the case of large sampled portions (sampled portions > 500 tonnes), the number of incremental samples to be taken = 40 incremental samples + $\sqrt{\text{tonnes}}$ in relation to the control of substances or products uniformly distributed throughout the feed or 100 incremental samples + $\sqrt{\text{tonnes}}$ in relation to the control of constituents or substances likely to be distributed non-uniformly in feed materials.

6. QUANTITATIVE REQUIREMENTS AS REGARDS AGGREGATE SAMPLE **U.K.**

A single aggregate sample per sampled portion is required.

	Nature of feed	Minimum size of aggregate sample ^{ab}
6.1.	Loose feed	4 kg
6.2.	Packaged feed:	4 kg ^c
6.3.	Liquid or semi-liquid feed:	4 litres
6.4.	Feed blocks or mineral licks:	
6.4.1.	each weighing more than 1 kg	4 kg
6.4.2.	each weighing not more than 1 kg	weight of four original blocks or licks
6.5.	Roughage/forage	4 kg ^d

a In case the sampled feed is of high value, a smaller quantity of aggregate sample can be taken on the condition this is described and documented in the sampling report.

b In accordance with the provisions of Commission Regulation (EU) No 619/2011 of 24 June 2011 laying down the methods of sampling and analysis for the official control of feed as regards presence of genetically modified material for which an authorisation procedure is pending or the authorisation of which has expired (OJ L 166, 25.6.2011, p. 9), the aggregate sample for the control of the presence of genetically modified material must contain at least 35 000 seeds/grains. This means that for maize the size of the aggregate sample must be at least 10,5 kg and for soybean 7 kg. For other seeds and grains such as barley, millet, oat, rice, rye, wheat and rapeseed, the aggregate sample size of 4 kg corresponds to more than 35 000 seeds.

c In case of packaged feed, it may also not be possible to achieve the size of 4 kg for the aggregate sample depending of the size of the individual units.

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- d** In case it concerns roughage or forage with a low specific gravity (e.g. hay, straw), the aggregate sample should have a minimum size of 1 kg.

7. QUANTITATIVE REQUIREMENTS AS REGARDS FINAL SAMPLES U.K.

Final samples

Analysis of at least one final sample is required. The amount in the final sample for analysis shall be not less than the following:

Solid feed	500 g ^{abc}
Liquid or semi-liquid feed	500 ml ^a
a	In accordance with the provisions of Regulation (EU) No 619/2011, the final sample for the control of the presence of genetically modified material must contain at least 10 000 seeds/grains. This means that for maize the size of the final sample must be at least 3 000 g and for soybean 2 000 g. For other seeds and grains such as barley, millet, oat, rice, rye, wheat and rapeseed, the final sample size of 500 g corresponds to more for 10 000.
b	In case the size of the aggregate sample is significantly less than 4 kg or litre (see footnotes point (6), also a smaller quantity of final sample can be taken on the condition this is described and documented in the sampling report.
c	In case of sampling pulses, cereal grains and tree nuts for the determination of pesticide residues, the minimum size of the final sample shall be 1 kg in accordance with the provisions of Commission Directive 2002/63/EC (OJ L 187, 16.7.2002, p. 30).

8. METHOD OF SAMPLING FOR VERY LARGE LOTS OR LOTS STORED OR TRANSPORTED IN A WAY WHEREBY SAMPLING THROUGHOUT THE LOT IS NOT FEASIBLE U.K.

8.1. General principles U.K.

In case the way of transport or storage of a lot does not enable to take incremental samples throughout the whole lot, sampling of such lots should preferably be done when the lot is in flow.

In the case of large warehouses destined to store feed, operators should be encouraged to install equipment in the warehouse enabling (automatic) sampling across the whole stored lot.

In case of applying the sampling procedures as provided for in this chapter 8, the feed business operator or his representative is informed of the sampling procedure. In case this sampling procedure is questioned by the feed business operator or his representative, the feed business operator or his representative shall enable the competent authority to sample throughout the whole lot at his/her cost.

8.2. Large lots transported by ship U.K.

8.2.1. Dynamic sampling of large lots transported by ship U.K.

The sampling of large lots in ships is preferably carried out while the product is in flow (dynamic sampling).

The sampling is to be done per hold (entity that can physically be separated). Holds are however emptied partly one after the other so that the initial physical separation does no longer exist after transfer into storage facilities. Sampling can therefore be performed in function of the initial physical separation or in function of the separation after transfer into the storage facilities.

The unloading of a ship can last for several days. Normally, sampling has to be performed at regular intervals during the whole duration of unloading. It is however not always feasible or appropriate for an official inspector to be present for sampling during the whole operation of

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unloading. Therefore sampling is allowed to be undertaken of part (sampled portion) of the whole lot. The number of incremental samples is determined by taking into account the size of the sampled portion.

In the case of sampling a part of a lot of feed of the same class or description and that part of the lot has been identified as not satisfying EU requirements, it shall be presumed that all of the feed in that lot is so affected, unless following a detailed assessment there is no evidence that the rest of the lot fails to satisfy the EU requirements.

Even if the official sample is taken automatically, the presence of an inspector is necessary. However in case the automatic sampling is done with preset parameters which cannot be changed during the sampling and the incremental samples are collected in a sealed receptacle, preventing any possible fraud, then the presence of an inspector is only required at the beginning of the sampling, every time the receptacle of the samples needs to be changed and at the end of the sampling.

8.2.2. *Sampling of lots transported by ship by static sampling* U.K.

In case the sampling is done in a static way the same procedure as foreseen for storage facilities (silos) accessible from above has to be applied (see point 8.4.1).

The sampling has to be performed on the accessible part (from above) of the lot/hold. The number of incremental samples is determined by taking into account the size of the sampled portion. In the case of sampling a part of a lot of feed of the same class or description and that part of the lot has been identified as not satisfying EU requirements, it shall be presumed that all of the feed in that lot is so affected, unless following a detailed assessment there is no evidence that the rest of the lot fails to satisfy the EU requirements.

8.3. **Sampling of large lots stored in warehouses** U.K.

The sampling has to be performed on the accessible part of the lot. The number of incremental samples is determined by taking into account the size of the sampled portion. In the case of sampling a part of a lot of feed of the same class or description and that part of the lot has been identified as not satisfying EU requirements, it shall be presumed that all of the feed in that lot is so affected, unless following a detailed assessment there is no evidence that the rest of the lot fails to satisfy the EU requirements.

8.4. **Sampling of storage facilities (silos)** U.K.

8.4.1. *Sampling of silos (easily) accessible from above* U.K.

The sampling has to be performed on the accessible part of the lot. The number of incremental samples is determined by taking into account the size of the sampled portion. In the case of sampling a part of a lot of feed of the same class or description and that part of the lot has been identified as not satisfying EU requirements, it shall be presumed that all of the feed in that lot is so affected, unless following a detailed assessment there is no evidence that the rest of the lot fails to satisfy the EU requirements.

8.4.2. *Sampling of silos not accessible from above (closed silos)* U.K.

8.4.2.1. *Silos not accessible from above (closed silos) with size > 100 tonnes* U.K.

Feed stored in such silos cannot be sampled in a static way. Therefore in case the feed in the silo has to be sampled and there is no possibility to move the consignment, the agreement has to be made with the operator that he or she has to inform the inspector about when the silo will be unloaded in order to enable sampling when the feed is in flow.

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8.4.2.2. *Silos not accessible from above (closed silos) with size < 100 tonnes* U.K.

Sampling procedure involves the release into a receptacle of a quantity of 50 to 100 kg and taking the sample from it. The size of the aggregate sample corresponds to the whole lot and the number of incremental samples relate to the quantity of the silo released in a receptacle for sampling. In the case of sampling a part of a lot of feed of the same class or description and that part of the lot has been identified as not satisfying EU requirements, it shall be presumed that all of the feed in that lot is so affected, unless following a detailed assessment there is no evidence that the rest of the lot fails to satisfy the EU requirements.

8.5. **Sampling of loose feed in large closed containers** U.K.

Such lots can often only be sampled when unloaded. It is in certain cases not possible to unload at the point of import or control and therefore the sampling should take place when such containers are unloaded.

9. INSTRUCTIONS FOR TAKING, PREPARING AND PACKAGING THE SAMPLES U.K.

9.1. **General** U.K.

The samples must be taken and prepared without unnecessary delay bearing in mind the precautions necessary to ensure that the product is neither changed nor contaminated. Instruments and also surfaces and containers intended to receive samples must be clean and dry.

9.2. **Incremental samples** U.K.

Incremental samples must be taken at random throughout the whole sampled portion and they must be of approximately equal sizes.

The incremental sample size is at least 100 grams or 25 grams in case of roughage or forage with low specific gravity.

In case that in accordance with the rules for the sampling procedure established in point 8 less than 40 incremental samples have to be taken, the size of the incremental samples shall be determined in function of the required size of the aggregate sample to be achieved (see point (6)).

In case of sampling of small lots of packaged feed where according to the quantitative requirements a limited number of incremental samples have to be taken, an incremental sample shall be the contents of one original unit whose contents do not exceed 1 kg or one litre.

In case of sampling of packaged feed composed of small units (e.g. < 250 g), the size of the incremental sample depends on the size of the unit.

9.2.1. *Loose feed* U.K.

Where appropriate, sampling may be carried out when the sampled portion is being moved (loading or unloading).

9.2.2. *Packaged feed* U.K.

Having selected the required number of units for sampling as indicated in chapter 5, part of the contents of each unit shall be removed using a spear or shovel. Where necessary, the samples shall be taken after emptying the units separately.

9.2.3. *Homogeneous or homogenisable liquid or semi-liquid feed* U.K.

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Having selected the required number of units for sampling as indicated in chapter 5, the contents shall be homogenised if necessary and an amount taken from each unit.

The incremental samples may be taken when the contents are being discharged.

9.2.4. *Non-homogenisable, liquid or semi-liquid feed* U.K.

Having selected the required number of units for sampling as indicated in chapter 5, samples shall be taken from different levels.

Samples may also be taken when the contents are being discharged but the first fractions shall be discarded.

In either case the total volume taken must not be less than 10 litres.

9.2.5. *Feed blocks and mineral licks* U.K.

Having selected the required number of blocks or licks for sampling as indicated in chapter 5, a part of each block or lick can be taken. In case of suspicion of a non-homogeneous block or lick, the whole block or lick can be taken as sample.

For blocks or licks weighing not more than 1 kg each, an incremental sample shall be the contents of one block or one lick.

9.3. **Preparation of aggregate samples** U.K.

The incremental samples shall be mixed to form a single aggregate sample.

9.4. **Preparation of final samples** U.K.

The material in the aggregate sample shall be carefully mixed⁽¹⁾.

- Each sample shall be put into an appropriate container/receptacle. All necessary precautions shall be taken to avoid any change of composition of the sample, contamination or adulteration which might arise during transportation or storage.
- In case of the control of constituents or substances uniformly distributed throughout the feed, the aggregate sample can be representatively reduced to at least 2,0 kg or 2,0 litres (reduced sample)⁽²⁾ preferably either by using a mechanical or automatic divider. For the control of the presence of pesticide residues in pulses, cereal grains and tree nuts, the minimum size of the reduced sample shall be 3 kg. In case the nature of the feed does not allow using a divider or the divider is not available, then the sample can be reduced by the quartering method. From the reduced samples the final samples (for control, defence and reference) shall then be prepared of approximately the same amount and conforming to the quantitative requirements of chapter 7. In case of the control of constituents, including genetically modified material, or substances likely to be distributed non-uniformly in feed materials, the aggregate sample shall be:
 - completely homogenized and divided afterwards into final samples or
 - reduced to at least 2 kg or 2 litres⁽³⁾ by using a mechanical or automatic divider. Only in the case that the nature of the feed does not allow for using a divider, the sample can, if necessary, be reduced by quartering method. For the control of the presence of genetically modified material in the frame of Regulation (EU) No 619/2011, the reduced sample must contain at least 35 000 seeds/grains to enable to obtain the final samples for enforcement, defence and reference of at least 10 000 seeds grain (see footnote (**)) in chapter 6 and footnote (*) in chapter 7).

9.5. **Packaging of samples** U.K.

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The containers or packages shall be sealed and labelled in such a manner that they cannot be opened without damaging the seal. The total label must be incorporated in the seal.

9.6. **Sending of samples to the laboratory** U.K.

The sample shall be sent without unnecessary delay to the designated analytical laboratory, together with the information necessary for the analyst.

10. **SAMPLING RECORD** U.K.

A record must be kept of each sample, permitting each sampled portion and its size to be identified unambiguously.

The record shall also mention any deviation of the sampling procedure as provided for in this Regulation.

Besides making the record available to the official control laboratory, the record shall be made available to the feed business operator and/or the laboratory designated by the feed business operator.]

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- (1) [^{F1}Any lumps shall be broken up (if necessary by separating them out and returning them to the sample).]
- (2) [^{F1}Except in the case of roughage or forage with low specific gravity.]
- (3) [^{F1}Except in the case of roughage or forage with low specific gravity.]

Textual Amendments

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