

THE MINISTRY OF AGRICULTURE, FISHERIES AND RURAL DEVELOPMENT

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Pursuant to Article 10, paragraph 4 and Article 67 of the Act on Plant Protection Products (Official Gazette 70/05), the Minister of Agriculture, Fisheries and Rural Development, with the approval of the Minister of Health and Social Welfare, hereby issues the

ORDINANCE

ON THE METHODS OF SAMPLING FOR THE OFFICIAL CONTROL OF PESTICIDE RESIDUES IN AND ON PRODUCTS OF PLANT AND ANIMAL ORIGIN ¹

I. GENERAL PROVISIONS

Subject matter

Article 1

(1) This Ordinance establishes the methods of sampling for the official control of products of plant and animal origin in order to determine the level of pesticide residues.

(2) Maximum levels of pesticide residues in food and feed are laid down in the Ordinance on maximum residue levels of pesticides in food and feed of plant and animal origin (Official Gazette 119/07)².

(3) The provisions of this Ordinance do not affect the sampling strategy, sampling levels and frequency of monitoring monitor certain substances and residues thereof in live animals and animal products as regulated by the Ordinance on measures to monitor certain substances and residues thereof in live animals and animal products (Official Gazette 118/04)³.

Article 2

Methods of sampling for the determination of pesticides residues for compliance with maximum residue levels (MRLs) were developed and agreed by the Codex Alimentarius Commission⁴.

Article 3

Sampling for official controls shall be carried out in accordance with the methods described in the Annex which forms and integral part of this Ordinance.

II. TRANSITIONAL AND FINAL PROVISIONS

Article 4

(1) The special regulation establishing maximum residue levels of pesticides in or on food and feed of plant and animal origin referred to in Article 1, paragraph 2 of this Ordinance shall be adopted by 31 December 2008.

(2) The special regulation referred to in paragraph 1 of this Article shall come into force on the eighth day after the day of its publication in the Official Gazette.

(3) Until entry into force of the regulation referred to in paragraph 1 of this Article the Ordinance on measures to monitor certain substances and residues thereof in live animals and animal products (Official Gazette 119/07) shall remain in force.

Repealed regulations

Article 5

On the date of entry into force of this Ordinance, the Ordinance concerning the manner of sampling and the methods of performing analyses and superanalyses of foodstuffs and general use items (Official Gazette 58/98) in the part relating to pesticides shall cease to have effect.

Entry into force

Article 6

This Ordinance shall enter into force on the eighth day after the day of its publication in the Official Gazette.

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Reg. No.: 525-02-08-1

Zagreb, 20 June 2008

The Minister

Božidar Pankretić, m.p.

¹ The Ordinance transposes the provisions of Commission Directive 2002/63/EC of 11 July 2002 establishing community methods of sampling for the official control of pesticide residues in and on products of plant and animal origin and repealing Directive 79/700/EEC

² The regulation will be aligned with the provisions of Regulation (EC) 396/2005 of the European Parliament and of the Council of 23 February 2005 on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC; Commission Regulation (EC) 178/2006 of 1 February 2006 amending Regulation (EC) No 396/2005 of the European Parliament and of the Council to establish Annex I listing the food and feed products to which maximum levels for pesticide residues apply, Commission Regulation (EC) 149/2008 of 29 January 2008 amending Regulation (EC) No 396/2005 of the European Parliament and of the Council by establishing Annexes II, III and IV setting maximum residue levels for products covered by Annex I thereto, Commission Regulation (EC) 260/2008 of 18 March 2008 amending Regulation (EC) No 396/2005 of the European Parliament and of the Council by establishing Annex VII listing active substance/product combinations covered by a derogation as regards post harvest treatments with a fumigant and Regulation (EC) 299/2008 of the European Parliament and of the Council of 11 March 2008 amending Regulation (EC) 396/2005 on maximum residue levels of pesticides in or on food and feed of plant and animal origin, as regards the implementing powers conferred on the Commission.

³ The Ordinance transposes the provisions of Council Directive 96/23/EC of 29 April 1996 on measures to monitor certain substances and residues thereof in live animals and animal products and repealing Directives 85/358/EEC and 86/469/EEC and Decisions 89/187/EEC and 91/664/EEC.

⁴ Document CAC/GL 33-1999 Codex Alimentarius Commission, FAO Rome

ANNEX

METHODS OF SAMPLING PRODUCTS OF PLANT AND ANIMAL ORIGIN FOR THE DETERMINATION OF PESTICIDE RESIDUES FOR CHECKING COMPLIANCE WITH MRLS

1. OBJECTIVE

Samples intended for the official control of the levels of pesticide residues in and on fruit and vegetables and in products of animal origin shall be taken according to the methods described below.

The objective of these sampling procedures is to enable a representative sample to be obtained from a lot for analysis to determine compliance with maximum residue levels (MRLs) for pesticides established in the Ordinance on maximum residue levels of pesticides in food and feed of plant and animal origin (Official Gazette 119/07).

In the absence of the established MRLs for pesticides, compliance with established by the Codex Alimentarius Commission shall be established.

The methods and procedures laid down in this Ordinance incorporate those recommended by the Codex Alimentarius Commission.

2. PRINCIPLES

MRLs are based on good agricultural practice data (GAP) and raw commodities as well as foods derived from them that comply with the MRLs are intended to be toxicologically acceptable.

A MRL for a plant, egg or dairy product takes into account the maximum level expected to occur in a composite sample, which has been derived from multiple units of the treated product and which is intended to represent the average residue level in a lot. A MRL for meat and poultry takes into account the maximum level expected to occur in the tissues of individual treated animals or birds.

In consequence, MRLs for meat and poultry apply to a bulk sample derived from a single primary sample, whereas MRLs for plant products, eggs and dairy products apply to a composite bulk sample derived from one to ten primary samples.

3. DEFINITION OF TERMS

Analytical portion

A representative quantity of material removed from the analytical sample, of proper size for measurement of the residue concentration.

Note:

A sampling device may be used to withdraw the analytical portion.

Analytical sample

The material prepared for analysis from the laboratory sample, by separation of the portion of the product to be analysed⁵ and then by mixing, grinding, fine chopping, etc., for the removal of analytical portions with minimal sampling error.

Note:

Preparation of the analytical sample must reflect the procedure used in setting MRLs and thus the portion of the product to be analysed may include parts that are not normally consumed.

Bulk sample/aggregate sample

For products other than meat and poultry, the combined and well-mixed aggregate of the primary samples taken from a lot.

For meat and poultry, the primary sample is considered to be equivalent to the bulk sample.

Notes:

- a) The primary samples must contribute sufficient material to enable all laboratory samples to be withdrawn from the bulk sample.
- b) Where separate laboratory samples are prepared during collection of the primary sample(s), the bulk sample is the conceptual sum of the laboratory samples, at the time of taking the samples from the lot.

Laboratory sample

The sample sent to, or received by, the laboratory. A representative quantity of material removed from the bulk sample.

Notes:

- a) The laboratory sample may be the whole or a part of the bulk sample.
- b) Units should not be cut or broken to produce the laboratory sample(s), except where subdivision of units is specified in Table 3.
- c) Replicate laboratory samples may be prepared.

Lot

A quantity of a food material delivered at one time and known, or presumed, by the sampling officer to have uniform characteristics such as origin, producer, variety, packer, type of packing, markings, consignor, etc. A suspect lot is one which, for any reason, is suspected to contain an excessive residue. A non-suspect lot is one for which there is no reason to suspect that it may contain an excessive residue.

Notes:

- a) Where a consignment is comprised of lots which can be identified as originating from different growers, etc., each lot should be considered separately.
- b) A consignment may consist of one or more lots.
- c) Where the size or boundary of each lot in a large consignment is not readily established, each one of a series of wagons, lorries, ships bays, etc., may be considered to be a separate lot.
- d) A lot may be mixed by grading or manufacturing processes, for example.

Primary sample/incremental sample

One or more units taken from one position in a lot.

Notes:

- a) The position from which a primary sample is taken in the lot should preferably be chosen randomly but, where this is physically impractical, it should be from a random position in the accessible parts of the lot.
- b) The number of units required for a primary sample should be determined by the minimum size and number of laboratory samples required.
- c) For plant, egg and dairy products, where more than one primary sample is taken from a lot, each should contribute an approximately similar proportion to the bulk sample.
- d) Units may be allocated randomly to replicate laboratory samples at the time of collecting the primary sample(s), in cases where the units are of medium or large size and mixing the bulk sample would not make the laboratory sample(s) more representative, or where the units (e.g. eggs, soft fruit) could be damaged by mixing.
- e) Where primary samples are taken at intervals during loading or unloading of a lot, the

sampling "position" is a point in time.

f) Units should not be cut or broken to produce the primary sample(s), except where subdivision of units is specified in Table 3.

Sample

One or more units selected from a population of units, or a portion of material selected from a larger quantity of material. For the purposes of these recommendations, a representative sample is intended to be representative of the lot, the bulk sample, the animal, etc., in respect of its pesticide residue content and not necessarily in respect of other attributes.

Sampling

The procedure used to draw and constitute a sample.

Sampling device

i. A tool such as a scoop, dipper, borer, knife or spear, used to remove a unit from bulk material, from packages (such as drums, large cheeses) or from units of meat or poultry which are too large to be taken as primary samples.

ii. A tool such as a riffle box, used to prepare a laboratory sample from a bulk sample, or to prepare an analytical portion from an analytical sample.

Notes:

a) Specific sampling devices are described by ISO and IDF standards⁶.

b) For materials such as loose leaves, the hand of the sampling officer may be considered to be a sampling device.

Sampling officer:

A person trained in sampling procedures and authorised to carry out official controls in accordance with Article 86 of the Food Act (Official Gazette 46/07) by the competent authorities.

Note:

The sampling officer is responsible for all procedures leading to and including preparation, packing and shipping of the laboratory sample(s). The officer must understand that consistent adherence to the specified sampling procedures is necessary, must provide complete documentation for samples, and should collaborate closely with the laboratory.

Sample size

The number of units, or quantity of material, constituting the sample.

Unit

The smallest discrete portion in a lot, which should be withdrawn to form the whole or part of a primary sample.

Notes:

Units should be identified as follows:

a) Fresh fruit and vegetables. Each whole fruit, vegetable or natural bunch of them (e.g. grapes) should form a unit, except where these are small. Units of packaged small products may be identified as in (d). Where a sampling device may be used without damaging the material, units may be created by this means. Individual eggs, fresh fruit or vegetables must not be cut or broken to produce units.

b) Large animals or parts or organs of them. A portion, or the whole, of a specified part or organ should form a unit. Parts or organs may be cut to form units.

c) Small animals or parts or organs of them. Each whole animal or complete animal part or

organ present may form a unit. Where packaged, units may be identified as in (d), below. Where a sampling device may be used without affecting residues, units may be created by this means.

d) Packaged materials. The smallest discrete packages should be taken as units. Where the smallest packages are very large, they should be sampled as bulk, as in (e). Where the smallest packages are very small, a pack of packages may form the unit.

e) Bulk materials and large packages (such as drums, cheeses, etc) which are individually too large to be taken as primary samples. The units are created with a sampling device.

⁵ A special regulation will transpose the provisions of Commission Regulation (EC) 178/2006 of 1 February 2006 amending Regulation (EC) No 396/2005 of the European Parliament and of the Council to establish Annex I listing the food and feed products to which maximum levels for pesticide residues apply

⁶ International Organisation for Standardisation, 1979, International standard ISO 950: Cereals - sampling (as grain).

International Organisation for Standardisation, 1979, International standard ISO 951: Pulses in bags - sampling.

International Organisation for Standardisation, 1980, International standard ISO 1839: Sampling - tea.

International Dairy Federation, 1995, International IDF standard 50C: Milk and milk products - methods of sampling.

4. SAMPLING PROCEDURES ⁷

4.1 Precautions to be taken

Contamination and deterioration of samples must be prevented at all stages, because they may affect the analytical results. Each lot to be checked for compliance must be sampled separately.

4.2. Collection of primary samples

The minimum number of primary samples to be taken from a lot is determined from Table 1, or Table 2 in the case of a suspect lot of meat or poultry.

Each primary sample should be taken from a randomly chosen position in the lot, as far as practicable. The primary samples must consist of sufficient material to provide the laboratory sample(s) required from the lot.

Note:

Sampling devices required for grain ⁸, pulses ⁹ and tea ¹⁰ are described in ISO recommendations and those required for dairy products ¹¹ are described by the IDF.

⁷ ISO recommendations for sampling of grain, or other commodities shipped in bulk may be adopted, if required.

⁸ International Organisation for Standardisation, 1979, International standard ISO 950: Cereals - sampling (as grain).

⁹ International Organisation for Standardisation, 1979, International standard ISO 951: Pulses in bags - sampling.

¹⁰ International Organisation for Standardisation, 1980, International standard ISO 1839: Sampling - tea.

¹¹ International Dairy Federation, 1995, International IDF standard 50C: Milk and milk products - methods of sampling.

Table 1. MINIMUM NUMBER OF PRIMARY SAMPLES TO BE TAKEN FROM A LOT

	Minimum number of primary samples to be taken from the lot
a) Meat and poultry	
A non-suspect lot	1
A suspect lot	Determined according to Table 2
b) Other products	
i) Products, packaged or in bulk, which can be assumed to be well mixed or homogeneous	1 (A lot may be mixed by grading or manufacturing process, for example).
ii) Products, packaged or in bulk, which may not be well mixed or homogeneous	For products comprised of large units, being primary food commodities of plant origin only, the minimum number of primary samples should comply with the minimum number of units required for the laboratory sample (see Table 4)
either:	
Weight of lot, kg	
<50	3
50 – 500	5
>500	10
or:	
Number of cans, cartons or other containers in the lot	
1 – 25	1
26 – 100	5
>100	10

Table 2. Number of randomly selected primary samples required for a given probability of finding at least one non-compliant sample in a lot of meat or poultry, for a given incidence of non-compliant residues in the lot.

Incidence of non-compliant residues in the lot	Minimum number of samples (n_0) required to detect a non-compliant residue with a probability of:		
	90%	95%	99%
%			
90	1	-	2

80	-	2	3
70	2	3	4
60	3	4	5
50	4	5	7
40	5	6	9
35	6	7	11
30	7	9	13
25	9	11	17
20	11	14	21
15	15	19	29
10	22	29	44
5	45	59	90
1	231	299	459
0,5	460	598	919
0,1	2301	2995	4603

Notes:

a) The table assumes random sampling.

b) Where the number of primary samples indicated in Table 2 is more than about 10 % of units in the total lot, the number of primary samples taken may be fewer and should be calculated as follows:

$$n = n_o / ((1 + (n_o - 1)) / N)$$

where

n = minimum number of primary samples to be taken

n_o = number of primary samples given in Table 2

N = number of units, capable of yielding a primary sample, in the lot.

c) Where a single primary sample is taken, the probability of detecting a non-compliance is similar to the incidence of non-compliant residues.

d) For exact or alternative probabilities, or for a different incidence of non-compliance, the number of samples to be taken may be calculated from:

$$1 - p = (1 - i)^n$$

where p is the probability and i is the incidence of non-compliant residues in the lot (both expressed as fractions, not percentages), and n is the number of samples.

4.3. Preparation of the bulk sample

The procedures for meat and poultry are described in Table 3. Each primary sample is considered to be a separate bulk sample.

The procedures for plant products, eggs or dairy products are described in Tables 4 and 5. The primary samples should be combined and mixed well, if practicable, to form the bulk sample. Where mixing to form the bulk sample is inappropriate or impractical, the following alternative procedure may be followed. Where units may be damaged (and thus residues may be affected) by the processes of mixing or subdivision of the bulk sample, or where large units cannot be mixed to produce a more uniform residue distribution, the units should be allocated randomly to replicate laboratory samples at the time of taking the primary samples. In this case, the result to be used should be the mean of valid results obtained from the laboratory samples analysed.

Table 3. MEAT AND POULTRY: DESCRIPTION OF PRIMARY SAMPLES AND MINIMUM SIZE OF LABORATORY SAMPLES

	Commodity classification ¹²	Examples	Nature of primary sample to be taken	Minimum size of each laboratory sample
Primary food commodities of animal origin				
1.	Mammalian meats Note: for enforcement of MRLs for fat-soluble pesticides samples must be taken according to item 2 below.			
1.1.	Large mammals, whole or half carcase, usually ≤ 10 kg	Cattle, sheep, pigs	Whole or part of diaphragm, supplemented by cervical muscle, if necessary	0.5 kg
1.2.	Small mammals, whole carcase	Rabbits	Whole carcase or hind quarters	0.5 kg after removal of skin and bone
1.3.	Mammal meat parts, loose fresh/chilled/frozen, packaged or otherwise	Quarters, chops, steaks, shoulders	Whole unit(s), or a portion of a large unit	0.5 kg after removal of bone
1.4.	Mammal meat parts, bulk frozen	Quarters, chops	Either a frozen cross-section of a container or the whole (or portions) of individual meat parts	0.5 kg after removal of bone
2.	Mammalian fats, including carcase fat Note: samples of fat taken as described in 2.1, 2.2 and 2.3 may be used to determine compliance of the fat, or the whole product, with the corresponding MRLs.			
2.1.	Large mammals, at slaughter, whole or half carcase, usually ≥ 10 kg	Cattle, sheep, pigs	Kidney, abdominal or subcutaneous fat cut from one animal	0.5 kg
2.2.	Small mammals at slaughter, whole or half carcase, < 10 kg		Abdominal or subcutaneous fat from one or more animals	0.5 kg
2.3.	Mammal meat parts	Legs, chops, steaks	Either visible fat, trimmed from unit(s) or whole unit(s) or portions of whole unit(s), where fat is not trimmable	0.5 kg 2kg
2.4.	Mammal bulk fat tissue		Units taken with a sampling device from at least three positions	0.5 kg
3.	Mammalian offal			
3.1.	Mammal liver fresh, chilled, frozen		Whole liver(s), or part of liver	0.4 kg

3.2.	Mammal kidney fresh, chilled, frozen		One or both kidneys, from one or two animals	0.2 kg
3.3.	Mammal heart fresh, chilled, frozen		Whole heart(s), or ventricle portion only, if large	0.4 kg
3.4.	Other mammal offal fresh, chilled, frozen		Part or whole unit from one or more animals, or a cross-section taken from bulk frozen product	0.5 kg
4.	Poultry meats Note: for enforcement of MRLs for fat-soluble pesticides samples must be taken according to item 5 below			
4.1.	Bird, large-sized carcass > 2kg	Turkey, goose, cocks, capons and ducks	Thighs, legs and other dark meat	0.5 kg after removal of skin and bone
4.2.	Bird, medium-sized carcass 500g—2kg	Hens, guinea fowl, young chicken	Thighs, legs or other dark meat from at least three birds	0.5 kg after removal of skin and bone
4.3.	Bird, small-sized carcass < 500 g carcass	Quail, pigeon	Carcasses from at least six birds	0.2 kg of muscle tissue
4.4.	Bird parts fresh, chilled, frozen retail or wholesale packaged	Legs, quarters, breasts and wings	Packaged units, or individual units	0.5 kg after removal of skin and bone
5.	Poultry fats, including carcass fat Note: samples of fat taken as described in 5.1 and 5.2 may be used to determine compliance of the fat, or the whole product, with the corresponding MRLs			
5.1.	Birds, at slaughter, whole or part carcass	Chickens, turkeys	Units of abdominal fat from at least 3 birds	0.5 kg
5.2.	Bird meat parts	Legs, breast muscle	Either visible fat, trimmed from unit(s) or whole unit(s) or portions of whole unit(s), where fat is not trimmable	0.5 kg 2kg
5.3.	Bird fat tissue in bulk		Units taken with a sampling device from at least three positions	0.5 kg
6.	Poultry offal			
6.1.	Edible bird offal, except goose and duck fat liver and similar high-value products		Units from at least six birds, or a cross-section from a container	0.2 kg
6.2.	Goose and duck fat liver and similar high-value products		Unit from one bird or container	0.05 kg

Processed foods of animal origin				
7.	Secondary food commodities of animal origin, dried meats Derived edible products of animal origin, processed animal fats, including rendered or extracted fats Manufactured food (single ingredient) of animal origin, with or without packing medium or minor ingredients such as flavouring agents, spices and condiments, and which is normally pre-packed and ready for consumption, with or without cooking Manufactured food (multi-ingredient) of animal origin, a multi-ingredient food consisting of ingredients of both animal and plant origin will be included here if the ingredient(s) of animal origin is (are) predominant			
7.1.	Mammal or bird, comminuted, cooked, canned, dried, rendered, or otherwise processed products, including multi-ingredient products	Ham, sausage, minced beef, chicken paste	Packaged units, or a representative cross-section from a container, or units (including juices, if any) taken with a sampling device	0.5 kg or 2 kg if fat content < 5%

¹² Special regulation will transpose provisions of the Commission Regulation (EC) No 178/2006 amending Regulation (EC) No 396/2005 of the European Parliament and of the Council to establish Annex I listing the food and feed products to which maximum levels for pesticide residues apply

Table 4. PLANT PRODUCTS: DESCRIPTION OF PRIMARY SAMPLES AND MINIMUM SIZE OF LABORATORY SAMPLES

	Commodity classification	Examples	Nature of primary sample to be taken	Minimum size of each laboratory sample
Primary food commodities of plant origin				
1.	All fresh fruits All fresh vegetables including potatoes and sugar beets and excluding herbs			
1.1.	Small sized fresh products units generally < 25 g	Berries, peas, olives	Whole units, or packages, or units taken with a sampling device	1kg
1.2	Medium sized fresh products, units generally	Apples, oranges	Whole units	1kg (at least 10 units)

	25 to 250 g			
1.3.	Large sized fresh products, units generally > 250 g	Cabbages, cucumbers, grapes (bunches)	Whole unit(s)	2kg (at least 5 units)
2.	Pulses	Beans, dried; peas, dried		1kg
	Cereal grains	Rice, wheat		1kg
	Tree nuts	Except coconuts		1kg
		Coconuts		5 units
	Oilseeds	Peanuts		0.5 kg
	Seeds for beverages and sweets	Coffee beans		0.5 kg
3.	Herbs	Fresh parsley	Whole units	0.5 kg
		Others, fresh		0.2 kg
	(for dried herbs see item 4 of this table)			
	Spices	Dried	Whole units or taken with a sampling device	0.1 kg
Processed foods of plant origin				
4.	Secondary food commodities of plant origin, dried fruits, vegetables, herbs, hops, milled cereal products Derived products of plant origin, teas, herb teas, vegetable oils, juices and miscellaneous products e.g. processed olives and citrus molasses Manufactured foods (single ingredient) of plant origin, with or without packing medium or minor ingredients, such as flavouring agents, spices and condiments, and which is normally pre-packed and ready for consumption with or without cooking Manufactured foods (multi-ingredient) of plant origin, including products with ingredients of animal origin where the ingredient(s) of plant origin predominate(s), breads and other cooked cereal products			
4.1.	Products of high unit value		Packages or units taken with a sampling device	0.1 kg ¹³
4.2.	Solid products of low bulk	Hops, tea, herb tea	Packaged units or units taken with a sampling device	0.2 kg

4.3.	Other solid products	Bread, flour, dried fruit	Packages or other whole units, or units taken with a sampling device	0.5 kg
4.4.	Liquid products	Vegetable oils, juices	Packaged units or units taken with a sampling device	0.5 l or 0.5 kg

¹³ A smaller laboratory sample may be taken from a product of exceptionally high value but the reason for doing so should be noted in the sampling record.

Table 5 EGG AND DAIRY PRODUCTS: DESCRIPTION OF PRIMARY SAMPLES AND MINIMUM SIZE OF LABORATORY SAMPLES

	Commodity classification	Examples	Nature of primary sample to be taken	Minimum size of each laboratory sample
Primary food commodities of animal origin				
1.	Poultry eggs			
1.1.	Eggs, except quail and similar		Whole eggs	12 whole hen eggs, 6 whole goose or duck eggs
1.2	Eggs, quail and similar		Whole eggs	24 whole eggs
2.	Milk		Whole units, or units taken with a sampling device	0.5 l
Processed foods of animal origin				
3.	Secondary food commodities of animal origin, secondary milk products such as skimmed milks, evaporated milks and milk powders Derived edible products of animal origin, milkfats, derived milk products such as butters, butteroils, creams, cream powders, caseins, etc. Manufactured food (single ingredient) of animal origin, manufactured milk products such as yoghurt, cheeses Manufactured food (multi-ingredient) of animal origin, manufactured milk products (including products with ingredients of plant origin where the ingredient(s) of animal origin predominates(s))			

	such as processed cheese products, cheese preparations, flavoured yoghurt, sweetened condensed milk			
3.1.	Liquid milks, milk powders, evaporated milks and creams, dairy ice creams, creams, yoghurts		Packaged unit(s) or unit(s) taken with a sampling device	0.5 l (liquid) or 0.5 kg (solid)
	<p>i) Evaporated milks and evaporated creams in bulk must be mixed thoroughly before sampling, scraping adhering material from the sides and bottom of containers and stirring well. About 2 to 3 l should be removed and again stirred well before removing the laboratory sample.</p> <p>ii) Milk powders in bulk should be sampled aseptically, passing a dry borer tube through the powder at an even rate.</p> <p>iii) Creams in bulk should be mixed thoroughly with a plunger before sampling but foaming, whipping and churning must be avoided.</p>			
3.2.	Butter and butteroils	Butter, whey butter, low fat spreads containing butter fat, anhydrous butteroil, anhydrous milk fat	Whole or parts of packaged unit(s) or unit(s) taken with a sampling device	0.2 kg or 0.2 l
3.3.	Cheeses, including processed cheeses			
	Units 0.3 kg or greater	Units 0,3 kg or greater	Units 0,3 kg or greater	0.5 kg
	Units < 0.3 kg			0.3 kg
	<p>Note: Cheeses with a circular base should be sampled by making two cuts radiating from the centre. Cheeses with a rectangular base should be sampled by making two cuts parallel to the sides.</p>			
3.4.	Liquid, frozen or dried egg products		Unit(s) taken aseptically with a sampling device	0.5 kg

4.4. Preparation of the laboratory sample

Where the bulk sample is larger than is required for a laboratory sample, it should be divided to provide a representative portion. A sampling device, quartering, or other appropriate size reduction process may be used but units of fresh plant products or whole eggs should not be cut or broken. Where required, replicate laboratory samples should be withdrawn at this stage or they may be prepared using the alternative procedure described above. The minimum sizes required for laboratory samples are given in Tables 3, 4 and 5.

4.5. Sampling record

The sampling officer must record the nature and origin of the lot; the owner, supplier or carrier of it; the date and place of sampling; and any other relevant information. Any departure from the recommended method of sampling must be recorded. A signed copy of the record must accompany each replicate laboratory sample and a copy should be retained by the sampling officer. A copy of the sampling record should be given to the owner of the lot, or a representative of the owner, whether or not they are to be provided with a laboratory sample. If sampling records are produced in computerised form, these should be distributed to the same recipients and a similar verifiable audit trail maintained.

4.6. Packaging and transmission of the laboratory sample

The laboratory sample must be placed in a clean, inert container which provides secure protection from contamination, damage and leakage. The container should be sealed, securely labelled and the sampling record must be attached. Where a bar code is utilised, it is recommended that alphanumeric information is also provided. The sample must be delivered to the laboratory as soon as practicable. Spoilage in transit must be avoided, e.g. fresh samples should be kept cool and frozen samples must remain frozen. Samples of meat and poultry should be frozen prior to despatch, unless transported to the laboratory before spoilage can occur.

4.7. Preparation of the analytical sample

The laboratory sample should be given a unique identifier which, together with the date of receipt and the sample size, should be added to the sample record. The part of the commodity to be analysed¹⁴, i.e. the analytical sample, should be separated as soon as practicable. Where the residue level must be calculated to include parts which are not analysed¹⁵, the weights of the separated parts must be recorded.

4.8. Preparation and storage of the analytical portion

The analytical sample should be comminuted, if appropriate, and mixed well, to enable representative analytical portions to be withdrawn. The size of the analytical portion should be determined by the analytical method and the efficiency of mixing. The methods for comminution and mixing should be recorded and should not affect the residues present in the analytical sample. Where appropriate, the analytical sample should be processed under special conditions, e.g. at sub-zero temperature, to minimise adverse effects. Where processing could affect residues and where practical alternative procedures are not available, the analytical portion may consist of whole units, or segments removed from whole units. If the analytical portion thus consists of few units or segments, it is unlikely to be representative of the analytical sample and sufficient replicate portions must be analysed to indicate the uncertainty of the mean value. If analytical portions are to be stored before analysis, the method and length of time of storage should be such that they do not affect the level of residues present. Additional portions must be withdrawn for replicate and confirmatory analyses, as required.

4.9. Schematic representations

Schematic representations of the sampling procedures described above are given in the document referred to in footnote 4.

5. CRITERIA FOR DETERMINING COMPLIANCE

Analytical results must be derived from one or more laboratory samples taken from the lot and received in a fit state for analysis. The results must be supported by acceptable quality control data¹⁶. Where a residue is found to exceed a MRL, its identity should be confirmed and its concentration must be verified by analysis of one or more additional analytical portions derived from the original laboratory sample(s).

The MRL applies to the bulk sample.

The lot complies with a MRL where the MRL is not exceeded by the analytical result(s).

Where results for the bulk sample exceed the MRL, a decision that the lot is non-compliant must take into account:

- (i) the results obtained from one or more laboratory samples, as applicable, and
- (ii) the accuracy and precision of analysis, as indicated by the supporting quality control data.

¹⁴ Special regulation will transpose provisions of the Commission Regulation (EC) No 178/2006 amending Regulation (EC) No 396/2005 of the European Parliament and of the Council to establish Annex I listing the food and feed products to which maximum levels for pesticide residues apply

¹⁵ For example, the stones of stone fruit are not analysed but the residue level is calculated assuming that they are included but contain no residue.

¹⁶ Quality control procedures for pesticide residue analysis. Document SANCO/3103/2000; amendments will be found on the Commission's Internet site.