

SCHEDULE 1

MANNER OF TAKING, MARKING, SEALING AND FASTENING UP OF SAMPLES

PART IV

TAKING AND PREPARATION OF SAMPLES

Incremental samples

1. Incremental samples of approximately equal sizes shall be taken at random throughout the whole sampled portion in the following manner:—

- (a) in the case of solid fertilisers in containers—
 - (i) having selected the required number of containers for sampling in accordance with paragraph 2(a) of Part III, part of the content of each selected container shall be taken as the incremental sample, except in the case of material to which sub-paragraph (iv) applies;
 - (ii) where necessary, each selected container shall be emptied and worked up with a shovel separately, and one shovelful taken as the incremental sample;
 - (iii) when the material is of a suitable nature the incremental sample may be taken from each selected container by means of a sampling spear or by divider;
 - (iv) when the material is so packed or of such a nature that a shovel or spear or divider cannot be used, or where the content of the container does not exceed 1 kg, the whole container shall be taken as the incremental sample;
 - (v) where the fertiliser is in a coarse or lumpy condition incremental samples shall be taken in accordance with sub-paragraph (ii) or (iv) as appropriate. These shall be crushed immediately and the whole passed through a sieve with meshes 31.8 mm square;
 - (vi) where the fertiliser consists of bulky material, uneven in character and likely to get matted together, each selected package shall be emptied separately and the matted portions tom up and the whole of the contents of each package shall be thoroughly mixed. The incremental samples shall then be taken in accordance with sub-paragraphs (ii) or (iv) as appropriate;
- (b) in the case of loose solid fertilisers—
 - (i) an imaginary division shall be made of the sampled portion into a number of approximately equal parts, corresponding to the number of incremental samples required in accordance with Table 2 in Part VI and at least one incremental sample shall be taken at random from each of these parts;
 - (ii) when sampling is being carried out while the material comprising the sampled portion is in motion, the incremental samples shall be taken from the approximately equal parts as required in sub-paragraph (b)(i);
 - (iii) when a sampling spear is used the sample shall be taken at an angle to the base of the heap;
 - (iv) where the fertiliser is in a coarse or lumpy condition, or consists of bulky material, uneven in character and likely to get matted together, the incremental samples shall be taken in accordance with the relevant provisions of paragraph 1(a)(v) or 1(a)(vi), as appropriate;

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- (v) where it is not possible to comply with the requirements of paragraph 1 of Part III when sampling fertilisers in bulk, the sampling should be carried out when the sampled portion is loaded or unloaded. In this case samples shall be taken from the randomly selected notional parts, as defined in sub-paragraph (b)(i), while these are being moved;
- (c) in the case of fluid fertilisers in containers each containing not more than 100 litres, the number of containers to be selected shall be taken in accordance with Table 3 in Part VI, and
 - (i) where the containers each contain not more than 1 litre the entire contents of the selected containers shall be transferred into a clean dry vessel of suitable material;
 - (ii) where the containers each contain more than 1 litre and not more than 100 litres the selected containers shall be well shaken or the contents agitated or otherwise treated to ensure uniformity. An approximately equal proportion of fluid shall then be taken immediately from each of the selected containers and transferred into a clean dry vessel of suitable material;
- (d) in the case of fluid fertilisers in containers each containing more than 100 litres —
 - (i) when a consignment is being withdrawn from the container and there is a tap in the outlet pipe from which it is suitable to draw a sample, a quantity of not less than 4 litres shall be drawn from the tap (after first withdrawing sufficient to remove any residues in the pipe) into a clean dry vessel of suitable material, made up of portions not less than 0.5 litres and of approximately equal size taken at regular intervals; otherwise
 - (ii) if the liquid is homogeneous, about 1 litre shall be drawn from a convenient outlet in the container (after first withdrawing sufficient to remove any residues in the outlet) into a clean dry vessel of suitable material, or
 - (iii) if the liquid is not homogeneous, the contents shall be well stirred or otherwise agitated and sampling shall then proceed as in sub-paragraph (ii), but
 - (iv) if it is not possible to make the liquid homogeneous, in the manner described in sub-paragraph (iii), or if the inspector considers that the procedure in sub-paragraphs (i), (ii) and (iii) may not be appropriate, the contents shall be sampled by lowering an open tube (which must be long enough to reach the bottom of the container) perpendicularly into the container. One or both ends of the tube shall then be closed and the contents transferred into a clean dry vessel of suitable material. If sampling by tube is impracticable, portions shall be taken from various levels of the container with a sampling bottle so as to obtain a quantity fairly representative of the whole. The appropriate process shall be repeated until a quantity of not less than 4 litres has been withdrawn:
- (v) where a sampled portion consists of two or more containers, incremental samples of approximately equal size shall be taken from each, drawn in the manner described in sub-paragraph (i), (ii), (iii) or (iv), as appropriate, and shall be placed in a clean dry vessel of suitable material.

Aggregate sample

2. The incremental samples shall be thoroughly mixed to form a single aggregate sample. In the case of solid fertilisers the material in the aggregate sample shall be carefully mixed to obtain an homogenised sample. Any lumps inconsistent with the nature of the material shall be broken up (if need be by separating them out and returning them to the aggregate sample).

Reduced sample

- (a) (a) In the case of solid fertilisers the aggregate sample shall, if necessary, be reduced to not less than 2 kg or 4 kg for ammonium nitrate fertilisers sampled for testing in accordance with method 16 in Part I of Schedule 2, in the following manner:—
 - (i) the material shall be heaped to form a “cone”, which shall then be flattened and quartered. Two diagonally opposite quarters shall be rejected, and the remainder shall then be mixed and the quartering and rejection continued as necessary, or
 - (ii) the reduction method effected by the use of a mechanical device.
- (b) In the case of fluid fertilisers if the aggregate sample consists of approximately 2 litres this may be taken as the reduced sample. In all other cases the aggregate sample shall be thoroughly mixed and a quantity of at least 2 litres transferred immediately into a clean dry vessel of suitable material.

Final samples

- 4. The final samples shall be obtained in the following manner—
 - (a) in the case of solid fertilisers, the reduced sample or where necessary the aggregate sample shall be thoroughly mixed and divided into three or, in the circumstances set out in section 77(2), four similar and approximately equal parts, and each part placed in an appropriate airtight container;
 - (b) in the case of fluid fertilisers the reduced sample or where necessary the aggregate sample shall be thoroughly mixed and at once divided into three or, in the circumstances set out in section 77(2) divided into four similar and approximately equal parts by pouring successive portions into appropriate airtight containers.

The containers used shall be such that the characteristics of the fertiliser at the time of sampling are preserved. In the case of a sample e.g. ammonium nitrate which is to be tested for particle size, precautions shall be taken to ensure that the physical condition of the sample does not change between sample and test. Where any void would occur within the sample container the sample may be placed in a plastic bag before being put in the final container and in that event the void shall be filled with a neutral product which will not affect either the physical or chemical composition of the sample. For the tests specified in Schedule 2. Method 16 a-g, the final samples shall be kept at a temperature between 0° and 25°C.