

# Sampling of solid fertilizers and liming materials

The European Standard EN 1482 : 1996 has the status of a  
British Standard

ICS 65.080

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- Association of Public Analysts
- British Aggregate Construction Materials Industries
- Chemical Industries Association
- Consumers' Association
- Department of Trade and Industry (Laboratory of the Government Chemist)
- Fertilizer Manufacturers' Association Ltd.
- Institute of Trading Standards Administration
- Ministry of Agriculture, Fisheries and Food
- Water Services Association of England and Wales

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# National foreword

This British Standard has been prepared by Technical Committee CII/37 and is the English language version of EN 1482 : 1996 *Sampling of solid fertilizers and liming materials* published by the European Organization for Standardization (CEN).

## Cross-references

| Publication referred to | Corresponding British Standard                                                                                         |
|-------------------------|------------------------------------------------------------------------------------------------------------------------|
| EN 1235 : 1995          | BS EN 1235 : 1995 <i>Solid fertilizers. Test sieving</i><br>BS 2846 <i>Guide to statistical interpretation of data</i> |
| ISO 2602 : 1980         | Part 2 : 1981 <i>Estimation of the mean: confidence interval</i>                                                       |
| ISO 3301 : 1975         | Part 6 : 1976 <i>Comparison of two means in the case of paired observations</i>                                        |

Some international standards for fertilizers are listed in annex A and these standards correspond to Sections of BS 5551 : Part 2 *Fertilizers Part 2: Sampling*.

**Compliance with a British Standard does not of itself confer immunity from legal obligations.**

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ICS 65.080

Descriptors: Fertilizers, manure, solids, sampling, sampling tables, specifications, samples, labelling

English version

## Sampling of solid fertilizers and liming materials

Enchantillonnage des matières fertilisantes solides  
et des amendements calciques et/ou magnésiens

Probenahme und Vorbereitung der Proben von  
festen Düngemitteln und Calcium-/Magnesium-  
Bodenverbesserungsmitteln

This European Standard was approved by CEN on 1996-03-14. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

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Foreword

This European Standard was prepared by Technical Committee CEN/TC 260, Fertilizers and liming materials, of which the secretariat is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 1996, and conflicting national standards shall be withdrawn at the latest by October 1996.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

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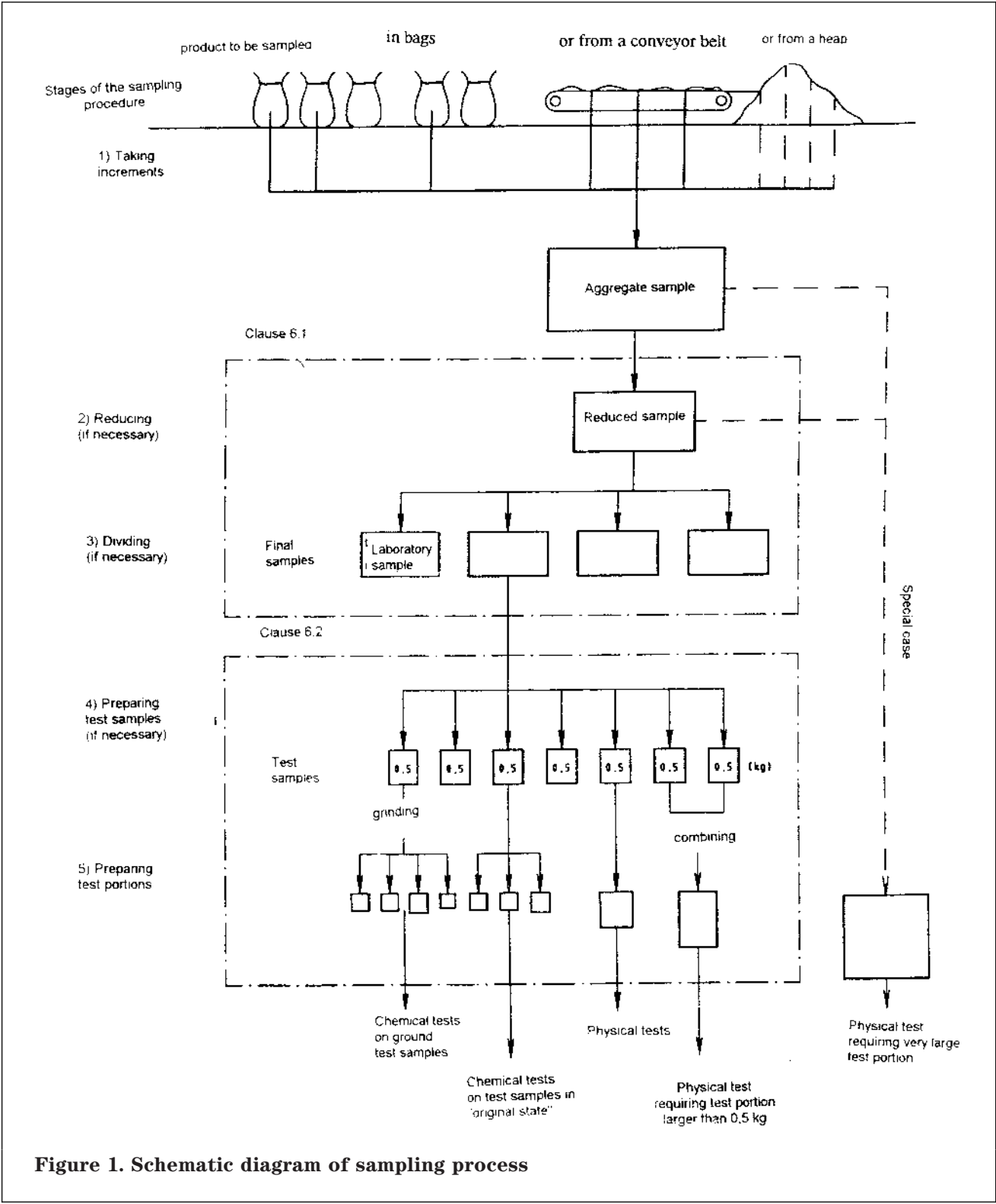
## 0 Introduction

This European Standard covers the following aspects of sampling, derived from the International Standards and documents indicated but presented in a simplified and condensed form. The titles of the International Standards are given in annex A.

- Sampling plans and quantitative data: ISO 8633, ISO 8634, ISO/TR 5307, ISO/TR 7553 and EEC 77/535 (annex A).
- Sampling methods: ISO 3693, ISO 5308, ISO 8633, ISO/DIS 10978 and EEC 77/535 (annex A).
- Reduction and preparation of samples for analysis: ISO 7410, ISO 7742, ISO 8358 and EEC 77/535 (annex A).
- Sampling reports: ISO 5306 and EEC 77/535 (annex A).

Figure 1 gives a schematic diagram of the sampling process.

The fundamental principle of representative sampling is that every particle has an equal chance of being selected or rejected. This principle cannot easily be complied with in the case of bulk heaps as the majority of the material cannot be reached by any sampling device. The fertilizer in these heaps may be sampled during transfer, either during the building up of the heap or during its break down for dispatch.



## 1 Scope

This European Standard describes and/or specifies sampling plans, methods of sampling, methods for the reduction and division of samples, and sets out the requirements for sampling reports.

This European Standard is applicable to deliveries of fertilizer or liming material supplied to third parties for resale under their own responsibility in smaller lots each of which would be subject to local, national or regional legislation.

It is not intended to and does not override any statutory control methods which have to be followed when samples are taken by control authorities.

The techniques and methods given in this European Standard apply to all solid fertilizers and liming materials in packages up to and including 50 kg in mass, and in bulk, provided the product is being moved. Static heaps of product are not included. Product in Intermediate Bulk Containers holding up to 1 000 kg may be treated either as packages or as bulk.

NOTE. The term fertilizer is used throughout the body of this Standard and should be taken to include liming materials unless otherwise indicated.

This European Standard does not cover complete, statistical sampling plans.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- ISO 2602 : 1980 *Statistical interpretation of test results — Estimation of the mean — Confidence interval*
- ISO 3301 : 1975 *Statistical interpretation of data — Comparison of two means in the case of paired observations*
- ISO 3310-1 : 1990 *Test sieves — Technical requirements and testing — Part 1: Test sieves of metal wire cloth*
- EN 1235 : 1995 *Solid fertilizers — Test sieving (ISO 8391 : 1988 modified)*

## 3 Definitions

For the purposes of this standard the following definitions apply:

### 3.1 aggregate sample

Combination of all increments from the lot.

NOTE. The increments may be grouped together in equal numbers in order to form several samples which can be reduced and analysed separately.

### 3.2 delivery

Quantity of material transferred at one time.

NOTE. A delivery may be made up of one or more lots or parts of a lot.

### 3.3 division

Process of producing a number of representative smaller portions, approximately equal in mass to each other, from a larger mass.

### 3.4 final sample

Representative part of the reduced sample or, where no intermediate reduction is required, of the aggregate sample.

NOTE. Often, more than one sample is prepared, at the same time, from the reduced sample (or from the aggregate sample). One or more of these final samples is used as a laboratory sample or as laboratory samples, while others may be stored for reference purposes.

### 3.5 increment

Representative quantity of material taken from a sampling unit.

NOTE. An increment may be constituted from a number of partial samples.

### 3.6 laboratory sample

Final sample intended for laboratory inspection or testing.

### 3.7 lot

Total quantity of material, assumed to have the same characteristics, to be sampled using a particular sampling plan.

### 3.8 reduced sample

Representative part of the aggregate sample obtained by a process of reduction in such a manner that the mass approximates to that of the final (laboratory) samples.

### 3.9 reduction

Process of producing a representative smaller mass of fertilizer from a larger mass, with the remainder being discarded.

### 3.10 sampling unit

Defined quantity of material having a boundary which may be physical, or hypothetical.

NOTE. An example of a physical boundary is a container. An example of a hypothetical boundary is a time interval for a flow of material.

### 3.11 test portion

Quantity of material taken from the test sample (or if both are the same, from the laboratory sample) and on which the test or observation is actually carried out.

### 3.12 test sample

Sample prepared from the laboratory sample and from which test portions are taken.