

ISO/TS 12788:2022-05 (E)

Rapeseed - Determination of glucosinolate content - Spectrometric method for total glucosinolates by glucose release

Contents	Page
Foreword.....	iv
Introduction.....	v
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	1
4 Principle.....	1
5 Reagents.....	1
6 Apparatus.....	3
7 Sampling.....	4
8 Preparation of the test sample.....	5
8.1 Reduction of test sample to laboratory sample.....	5
8.2 Moisture and volatile matter content.....	5
8.3 Grinding.....	5
9 Procedure.....	5
9.1 Test portion.....	5
9.2 Extraction of glucosinolates.....	5
9.2.1 General.....	5
9.2.2 Principle.....	5
9.2.3 Operating mode.....	5
9.3 Hydrolysis and collection of glucose from glucosinolates by myrosinase and column chromatography.....	6
9.4 Glucose determination.....	6
9.4.1 General.....	6
9.4.2 Glucose oxidase/peroxidase glucose assay (5.4).....	6
9.4.3 Glucose hexokinase/glucose-6-phosphate dehydrogenase assay (5.8).....	7
10 Calculation of glucosinolate content.....	8
11 Expression of results.....	9
12 Precision.....	9
12.1 Interlaboratory test.....	9
12.2 Repeatability.....	9
12.3 Reproducibility.....	9
12.4 Critical difference.....	9
12.4.1 General.....	9
12.4.2 Comparison of two groups of measurements in one laboratory.....	9
12.4.3 Comparison of two groups of measurements in two laboratories.....	10
13 Test report.....	10
Annex A (informative) Extraction and purification of myrosinase from <i>Sinapis alba</i> L., also called white or yellow mustard.....	11
Annex B (informative) Determination of recovery of glucosinolates.....	15
Annex C (informative) Results of the interlaboratory test.....	18
Bibliography.....	20