# ISO 21479:2019 (E)

## Soil quality — Determination of the effects of pollutants on soil flora — Leaf fatty acid composition of plants used to assess soil quality

## Contents


Foreword

Introduction

1 Scope

2 Normative references

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions
3.2 Abbreviated terms

4 Principle

5 Apparatus and reagents

5.1 Apparatus
5.2 Reagents

6 Sampling strategies

7 Sampling of leaf tissues

8 Obtaining, extraction and analyses of FAMES

8.1 Contamination control
8.2 Obtaining and extraction of FAMES from plant leaves
8.3 Analysis of FAMES

9 Test report

9.1 A reference to this document, i.e. ISO 21479
9.2 Description of the site and areas analysed
9.3 Leaf sampling
9.4 Fatty acid composition
9.5 Conclusion

Annex A (informative) Results of the ring test

A.1 General
A.2 Results obtained in Bordeaux by six laboratories
A.3 Results obtained by the same investigator in different laboratories:
A.4 Outcome

Annex B (informative) Assessment of soil quality by determining the Omega-3 index of Lactuca sativa seedlings grown ex situ under controlled conditions

Annex C (informative) Plant species previously successfully used to assess soils of contaminated sites (organic and/or metals)

Annex D (informative) Variation of the Omega-3 index as function of harvest time, plant size and leaf development

Annex E (informative) Effect of the quantity of foliar tissues on the FAMES composition

Annex F (informative) Example of chromatogram obtained after the FAMES analysis of foliar tissues

Annex G (informative) Recommended mathematical method to rate soils of areas when some sampled plant species are not found in all areas


Page count: 23