

# Standard



## NATIONAL STANDARD OF CANADA

CAN/BNQ 0413-220/2016

Organic Soil Conditioners — Composts —  
Determination of Respiration Rate — Part I:  
Respirometric Method — Part II: Modified  
Biochemical Oxygen Demand (BOD) Respiration  
Method



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*Amendements organiques — Composts — Détermination  
du taux de respiration — Partie I : Méthode  
respirométrique — Partie II : Méthode de respiration par  
la demande biochimique en oxygène (DBO) modifiée*

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**ORGANIC SOIL CONDITIONERS — COMPOSTS —  
DETERMINATION OF RESPIRATION RATE —  
PART I: RESPIROMETRIC METHOD — PART II:  
MODIFIED BIOCHEMICAL OXYGEN DEMAND  
(BOD) RESPIRATION METHOD**



**Conseil canadien des normes  
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## FOREWORD

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**ORGANIC SOIL CONDITIONERS — COMPOSTS —  
DETERMINATION OF RESPIRATION RATE —  
PART I: RESPIROMETRIC METHOD**

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**ORGANIC SOIL CONDITIONERS — COMPOSTS —  
DETERMINATION OF RESPIRATION RATE —  
PART I: RESPIROMETRIC METHOD**

**INTRODUCTION**

This part presents a respirometric method used to determine the respiration rate of compost, which was adapted from a method developed by the Centre de recherche industrielle du Québec (CRIQ). It was presented under the title *Mise au point d'une méthode respirométrique pour l'évaluation de la stabilité des composts* at the fourth annual meeting of the Composting Council of Canada held on June 13-14, 1994, in Toronto.

The method uses a respirometer to determine the amount of oxygen consumed by the metabolic activity of aerobic micro-organisms in a compost sample over a specific period of time, which permits an estimate of the biological activity of the compost. As the biological activity of compost diminishes as the composting process nears completion, the respiration rate decreases and may be used to provide an indication of compost maturity.

**1        PURPOSE**

This method aims to determine the respiration rate of compost by respirometry.

**2        SCOPE**

This method applies to compost from different sources used as organic soil conditioners.

**3        NORMATIVE REFERENCES**

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