

## New & Featured Products

NEW

# DIK-0465 Portable Gas Diffusion Coefficient Meter of Soil

### Checking soil physical quality in the field made easy.

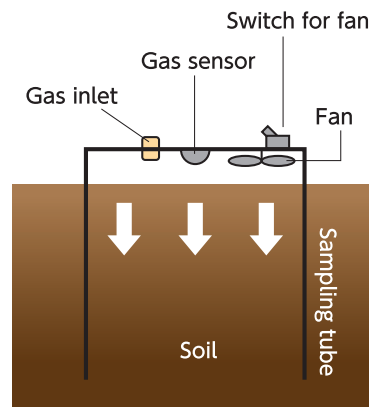
A soil's gas diffusion coefficient can be used to understand how well gases flow in a given soil. Poor gas flow, often caused by overly saturated soils, can result in a lack of oxygen available for crops. This results in crop moisture damage.

With this product, you can judge the physical quality of a soil in the field without procuring a sample and is suited for evaluating the structure of soil prone to moisture damage.

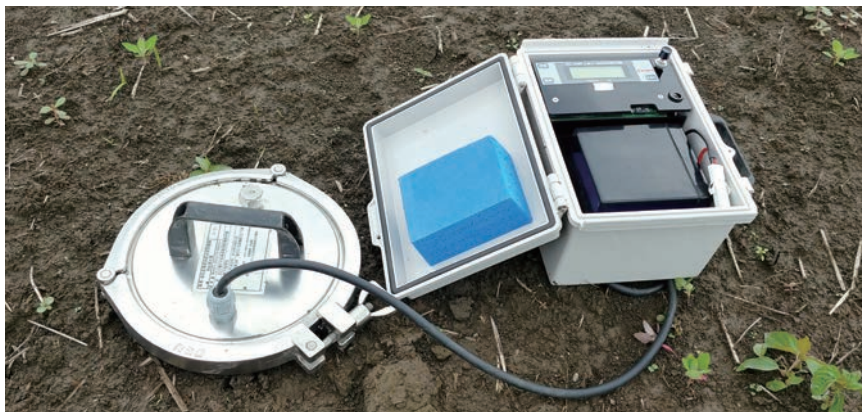
- ▶ Measuring takes only 30 minutes.
- ▶ Anyone can make an accurate evaluation using the dedicated spreadsheet software.
- ▶ Iso butane gas is used, widely available.



State of inserting gas at the field site



Measurement Outline



State of measured at the field site

Joint-developed  
by Tohoku Agricultural  
Research Center,  
NARO and Daiki

For more specifications, please refer to P.46

## DIK-0465

### Portable Gas Diffusion Coefficient Meter of Soil

It enables to judge good or bad in soil physical property at the crop field.

Conventional method was to measure air permeability or diffusion property in laboratory by using 100ml sampling tube with taken soil. This product is a newly developed method that can measure the diffusion coefficient of gas moving from the surface soil to the bottom of 1,800 ml cylinder in an actual field. This makes it possible to measure the gas movement characteristics of fields that have large scale of soil structure like cultivated soil.

#### ▼Measurement Procedures



① Fill isobutene gas into a bag



② Bury a cylinder in soil



③ Install a sensor part then put a lid on



④ Take the gas from the bag with a syringe



⑤ Inject the gas through the gas inlet



⑥ Start measurement



⑦ Check the length of the cylinder from the ground



⑧ Dig the cylinder out



⑨ Finish after collecting the soil

This product is Joint-developed by Tohoku Agricultural Research Center, NARO and Daiki.