

# **OPERATING INSTRUCTIONS**

1960 Pan Lysimeter

**July 2009** 



(Figure 1) - Pan Lysimeter



(Figure 2) - Pan Lysimeter (INSIDE)

A Pan Lysimeter (pore water sampler) is the perfect device for taking samples in conditions of soil saturation and subsequent drainage conditions.



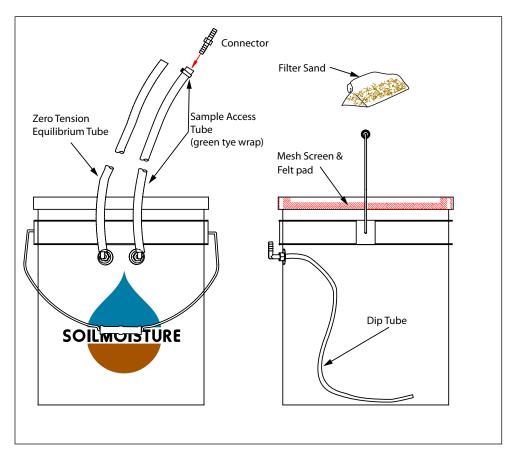
#### **WARRANTY & LIABILITY**

Soilmoisture Equipment Corp. (SEC) warrants all products manufactured by SEC to be free from defects in materials and workmanship under normal use and service for twelve (12) months from the date of invoice provided the section below has been met.

Soilmoisture Equipment Corp. (SEC) is not liable for any damages, actual or inferred, caused by misuse or improper handling of its products. SEC products are designed to be used solely as described in these product operating instructions by a prudent individual under normal operating conditions in applications intended for use by this product.

## **AQUAINT YOURSELF WITH THE PARTS**

The Soilmoisture Model 1960 Pan Lysymeter is shipped fully assembled.



(Figure 3) - Parts of the Pan Lysymeter

#### **SPECIFICATIONS:**

1960 PAN LYSIMETER Diameter 12" (30.5 cm), Height 15" (38.1 cm) VOLUME: 5 Gallons

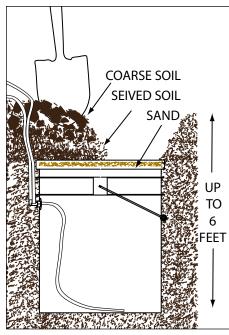
#### THEORY OF OPERATION

Placed near surface or at some depths up to 6 feet, it provides a good way to collect soluble agrochemical surface residue, near surface salt accumulations (created over the dry season), or in gaining a better understanding of the infiltration properties of a particular soil type under high flow conditions.

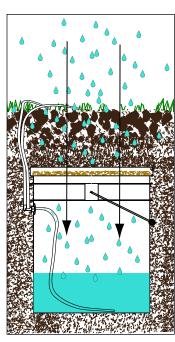
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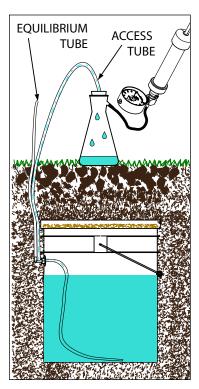
#### **HOW TO USE AND OR OPERATE UNIT**



(Figure 4) - Dig the hole, refill fine to coarse.



(Figure 5) - Bucket collecting water



(Figure 6) - Collecting a sample

#### **INSTALLATION / IN FIELD**

Before installation insure that all tubes are properly attached.

- 1. For in ground placement of the bucket, dig a hole atleast 12" wide and up to 6 ft deep depending on the depth of sample desired (often root level). Place bucket in ground so that it is level and both tubes are reaching up to the surface.
- 3. Sprinkle all of the filter sand media (supplied with unit) on top of the lid upon the mesh screen.
- 4. You may want to sieve dirt prior to replacement of soil. The soil that is shoveled onto the top of the sand that is on the lid of the bucket, should be fine to coarse (from lid to surface). This will allow pore water to move more naturally. Fill the hole so that the tubes are accessible and the bucket is covered (Fig. 4).
- 5. Upon irrigation or rain the sampler will capture the vertically percolated water. (Fig. 5).

### **COLLECTION OF SAMPLE** (Fig. 6)

- 1. Use the Soilmoisture Model1900K3 Sample Extraction Kit *(optional, Fig.7)* by attaching the sample access tube (with the green tie) to the collection flask, and the other to the Soilmoisture Model 2005G2 vacuum hand pump *(optional, Fig.8)*.
- 2. As you pull a vacuum, the sample that has been collected in the bucket will flow into the collection flask.

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# GENERAL CARE AND MAINTENANCE/TROUBLESHOOTING

- The Pan Lysimeter comes fully assembled, however, check all attachments to ensure that tubes are connected before installation.
- The Pan Lysimeter requires minimum maintenance after installation.
- Any kinks in any of the tubes will cause the unit to malfunction
- For the best results, the lysimeter should be checked and pumped on a regular basis.

## REPLACEMENT PARTS / HELPFUL ITEMS

ITEM PART #	DESCRIPTION
MCM037	Filter Sand
MZT007	1/4" ID Poly Tubing
MZT013	3/8" ID 5/8" OD Tubing
1960-003CR	Solilmoisture Modified Bucket
1960-004CR	Soilmoisture Modified Lid
MWM015	MALE TO MALE CONNECTOR
1907	Seive Kit
HELPFUL ITEMS	
1900K3	Extraction Kit
2005G2	Vacuum Hand Pump



1900K3 Extraction Kit



2005G2 Vacuum Hand Pump

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