



■ Drain Gauge tells you when to turn off your BigGun sprinkler.

# Need to know what you're putting into the ground water?

## GEE PASSIVE CAPILLARY LYSIMETER DRAIN GAUGE

### APPLICATIONS

- Farming operations, to measure and control irrigation during a cropping season.
- Recreational facilities, such as golf courses, to measure and control excess water and nutrient losses.
- Waste landfill sites, to advise operators when drainage is occurring and where cover systems need to be improved.
- Maximization of food processing waste applications by monitoring water drainage rates and water quality below the root zone.
- Environmental research measuring percolation and recharge rates.



■ Manure contaminates surface and ground water with disease-causing organisms.

**U**ntil now, it was hard to know for sure how much water was draining below the root zone—and what was leaching down with it. Research institutions use cumbersome and expensive equipment. Or plug multiple variables into computer models to get estimates. But Drain Gauge is neither cumbersome nor expensive. It's simple enough for anyone to use. And it doesn't guess. Instead, it lets you

## DRAIN GAUGE



GEE PASSIVE  
CAPILLARY  
LYSIMETER

So you know—and can show—just what you're adding to the ground water.

### How Drain Gauge works.

Drain Gauge sits below the root zone, collecting down-welling water into a duct and wick system. It measures the water volume collected and sends the information to a surface datalogger. A surface port lets you draw out samples to analyze for chemicals, fertilizers, and other contaminants.

### Hassle-free.

Water is emptied from the monitor through a siphon. Because there are no moving parts, Drain Gauge is



■ Unfiltered or untreated contaminants infiltrate the soil and pollute the ground water.

tough. It's built to be buried—and stay buried. You don't need to worry about digging it up for maintenance or inspection. And installation is easy.

Simply dig a shaft with an auger, or even a post hole digger and shovel. Then drop in the monitor, re-fill the hole, and begin taking measurements.

### The right measurement at the right price.

Drain Gauge is accurate—and affordable. You can count on your data. And you can afford to collect it in as many locations as you need to. With the right data, you can be sure your operation is efficient and safe. ■



■ Drain Gauge  
147cm length (58in)

### DECAGON

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## 1 How does Drain Gauge measure the volume of drainage?

A dielectric water level monitor in the center of the reservoir measures the water level to 1mm. There are no moving parts.

## 2 What is the divergence control tube?

The divergence control duct assures that soil moisture is neither lost nor accumulated once the downwelling soil water approaches the wick.

## 3 Why the wick?

The bottom of the divergence control duct creates a boundary where the water will not move. By installing a wick at this location the wick creates a suction which facilitates the water movement down to the reservoir.

### SPECIFICATIONS

DCT water interception:  
1.6mm per drain,  $\pm 0.03\text{mm}$

Reservoir drain volume: 50ml

Water level gauge resolution: 1ml or better

Measurement time: 10ms

Gauge power: 2.5VDC @ 3mA, for 10ms

Output: Proportional mv-to-water-level

Operating temperature: 0–50°C

Cable length: 3m

Reservoir sampling tube length: 3m

Wick: 60cm inert fiberglass

Construction Material: Steel

Overall length: 147cm  
*including divergence control tube*

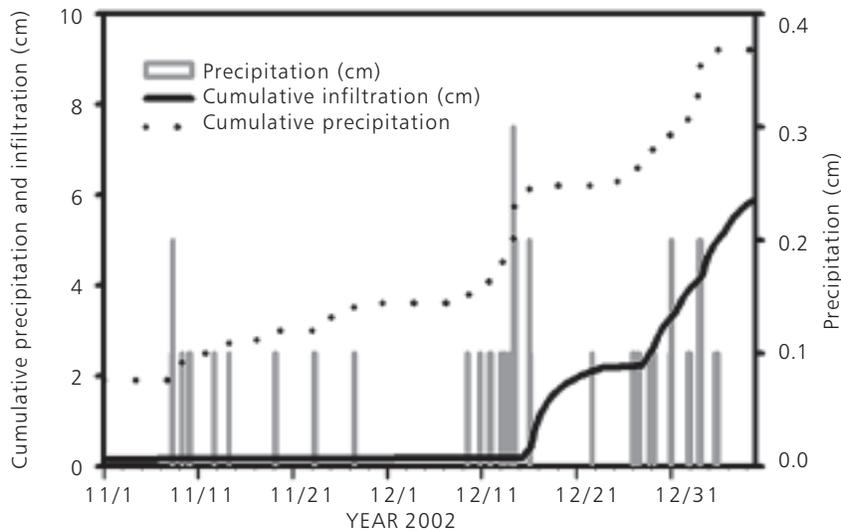
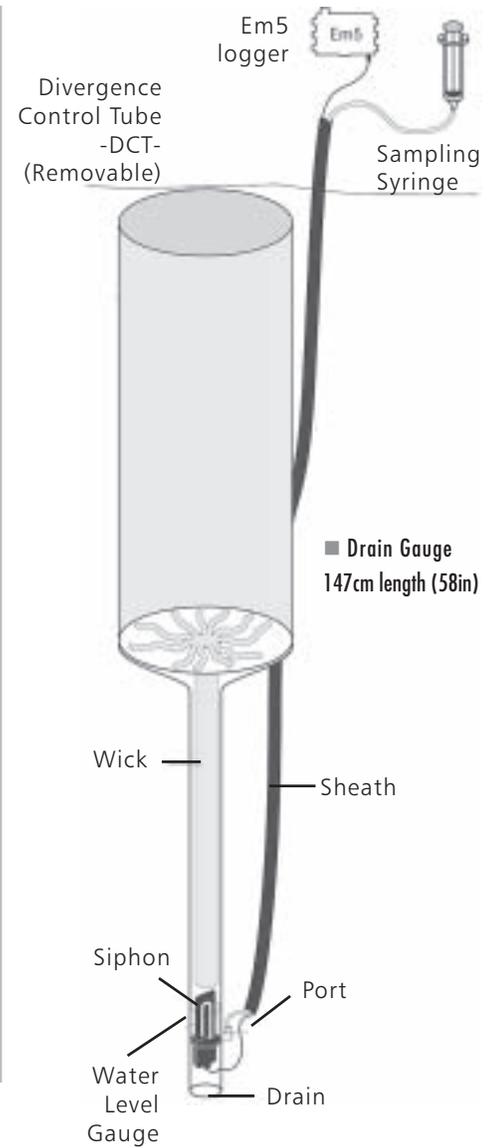
DCT length: 66cm

DCT OD: 20.3cm

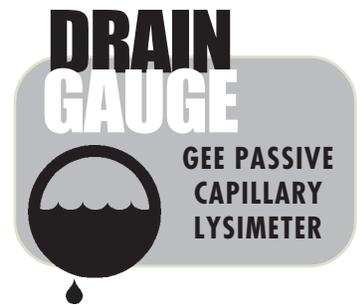
Weight: 10kg boxed

Warranty: One year

Compatible dataloggers:  
EM5 (DECAGON)  
CSI Loggers (21X, 23X, CR10X)



■ Cumulative precipitation and infiltration measured above and below a turf grass. Precipitation and infiltration accumulation was started at the beginning of October. The graph shows how little an effect the rain had on the soil infiltration until it reached near saturation around the 15th of December.



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