

## NAME OF THE INSTRUMENT: GRASS MINIMUM THERMOMETER

### ➤ PURPOSE OF MEASUREMENT:

- Grass minimum thermometer or terrestrial radiation thermometer is used to measure the actual minimum temperature experienced by the plants near the ground surface.
- The information on Grass minimum temperature is required to have an idea about **ground frosts** which are very crucial from the point of view of agriculture.
- When the instrument records temperature below 0 °C, a **ground frost** is likely to occur.

### ➤ UNIT OF GRASS MINIMUM TEMPERATURE:

- Degree Celsius (°C)

### ➤ LEAST COUNT:

- 0.5 °C

### ➤ TIME OF OBSERVATION:

- The reading of grass minimum thermometer is noted down **before sunrise in the morning**.

### ➤ DETAILS OF EQUIPMENT:

- The grass minimum thermometer is a glass thermometer filled with spirit or alcohol with a small index just like in case of minimum thermometer.
- The thermometer is exposed on short grass about one inch above ground surface on its support over the grass plot on a Y-shaped stand, so that bulb just touches the grasses.



- Its construction and working is similar to that of minimum thermometer except that its bulb is spherical and the stem is encased in a glass jacket in order to protect seal marks on the stem from dew, rain.

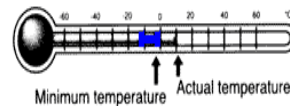
- The grass minimum temperature is lower than the air temperature at screen level.

### ➤ SETTING OF THE INSTRUMENT:

- Grass minimum thermometer is set at 14:18 hrs by tilting the bulb upwards (jerking is not given).

### ➤ PRECAUTIONS:

- In order to avoid condensation of spirit, do not leave the instrument exposed in the daytime.
- After reading, the instrument is kept in doors to avoid direct exposure to solar radiation.



The index is drawn back to the minimum position as the temperature falls. The thermometer is reset by tilting it, bulb end upwards.

