

NAME OF THE INSTRUMENT: WIND VANE

➤ WIND:

- Some of the solar energy reaching near the earth surface is transformed into kinetic energy of the gases of the atmosphere.
- As a result, their molecules are in continuous motion.
- Wind is air in horizontal motion, caused due to difference in atmospheric pressure.
- Wind is a vector; hence it is to be expressed in direction and speed both.

➤ PURPOSE OF MEASUREMENT:

- Wind has an important role in determining crop water use.
- Wind influences the crop physically and physiologically. Hence, has to be measured for crop growth studies.
- An instrument generally measures the wind direction is known as **Wind Vane**.

➤ UNIT OF WIND DIRECTION:

- There are two ways of expressing wind direction:
- By Direction like N, E, S, W, etc.
- By degrees (from north, measured in clockwise) like N= 360⁰, 0⁰; E=90⁰; S=180⁰, W=270⁰

➤ LEAST COUNT:

0⁰=N

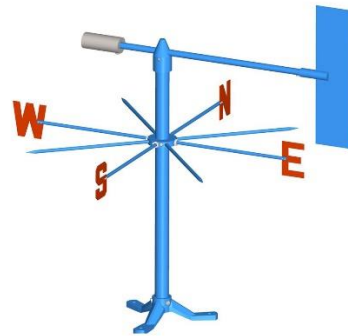
➤ TIME OF OBSERVATION:

- 07:18 hrs and 14:18 hrs

➤ DETAILS OF EQUIPMENT:

- Wind Vane is of the shape of a penchant.
- There is an arrow head installed on a metal frame free to rotate the horizontal plane with the direction of the arrow pointing towards the direction of wind.
- Below this indicator, a frame indicating 8 points of compass is fixed to facilitate the estimation of the direction.

- The height between the pointer and ground level is exactly 10 ft (3.05 m).
- The north indicator should be set to true north and not to the magnetic north.
- The axis of the wind vane should be exactly vertical.



➤ MEASURING PROCEDURE:

- Wind vane is read by standing exactly in the line of the arrow of the instrument.