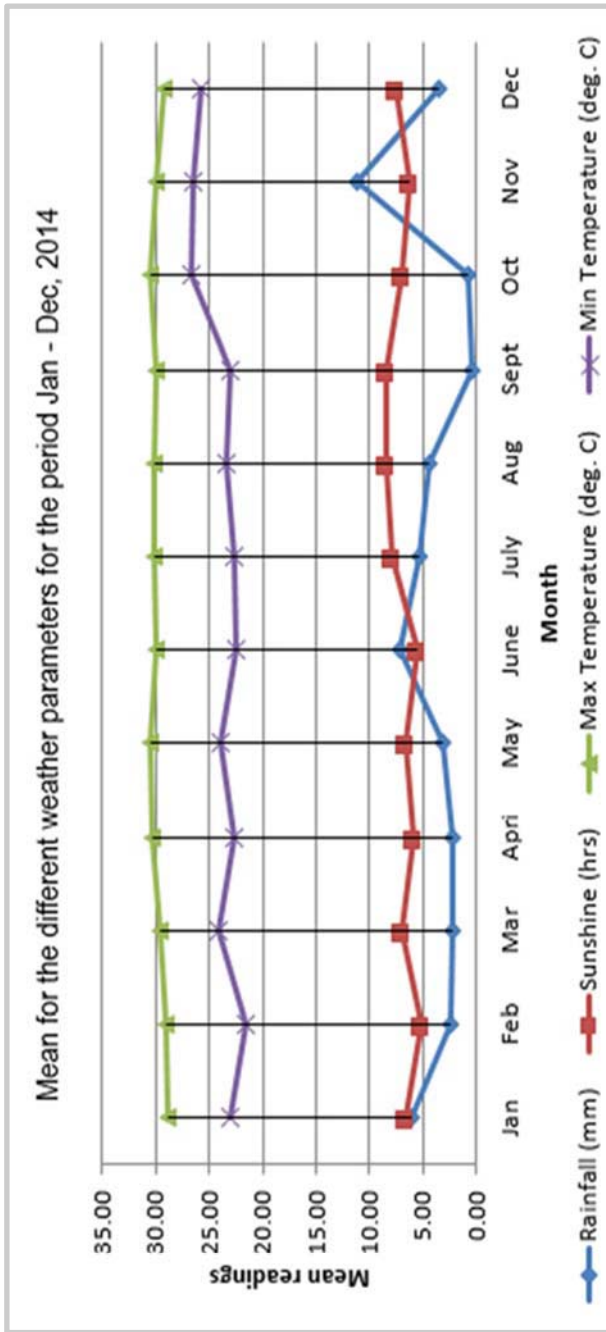


NOTES



Guyana Rice Development Board in collaboration with Hydrometeorological Service Ministry of Agriculture



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METEOROLOGICAL STATION



METEOROLOGICAL INSTRUMENTS AND ITS PURPOSE AT RRS, BURMA

A weather station is a facility, either on land or sea, with instruments and equipment for measuring atmospheric conditions to provide information for weather forecasts and to study the weather and climate. The measurements taken include temperature, barometric pressure, humidity, wind speed, wind direction, and precipitation amounts. Weather plays an important role in agricultural production. It has a profound influence on crop growth, development and yields; on the incidence of pests and diseases; on water needs; and on fertilizer requirements.

Instruments found at the weather station are:

1. Sunshine recorder



A **sunshine recorder** is a device that records the amount of sunshine hours per day

at a given location. The results provide information about the weather and climate for that geographical area. The recorder requires a human observer to interpret the results.

2. The Stevenson screen



This screen is enclosure to shield meteorological instruments against precipitation and direct heat radiation from the outside, while still allowing air to circulate freely around them. It forms part of a standard weather station. This Stevenson screen holds thermometers of varying kinds, namely, ordinary, maximum/minimum and wet/dry.

3. Rain gauge



A **rain gauge** is an instrument used to measure precipitation or amount of rainfall for a certain period of time. It is usually measured in millimetres.

4. An anemometer



An **anemometer** is an instrument that measures wind speed. The anemometer has three or four cups attached to horizontal arms. The arms are

attached to a vertical rod. As the wind blows, the cups rotate, making the rod spin. The stronger the wind blows, the faster the rod spins. The anemometer counts the number of rotations, or turns, which is used to calculate wind speed.

5. Soil thermometers



There are four soil thermometers which are placed at 5, 10, 20 and 30cm below the surface of the soil. These are used to measure the temperature of the soil at the varying depths. It is important because soil temperature affects plant growth and influences soil organisms, moisture content, aeration and availability of plant nutrients.