

Introduction

Regional Horticultural Research Station is situated on 20° 57' North latitude and 72° 57' East longitudes and has an altitude of 12 m above MSL. The farm is about 12 km away from Arabian Sea shore in the East.

This farm is situated in a typically tropical climate, characterized by three well defined seasons viz., hot summer, mild winter and warm and humid monsoon. The monsoon commences from the second week of June and lasts up to end of September realized entirely from South-West monsoon. Partial failure of rains once in three to four years is common in the area. July and August are the months of heavy precipitation. The climate of this area is humid and the mean relative humidity remains above 68.27 per cent throughout the year. Temperature during the rainy season ranges from 20 to 30°C. The temperature starts dropping in the beginning of November when winter season sets in and continues till the middle of February. January and part of February are the coldest months and April and May are the hottest months of the year. The average maximum temperature ranges from 27.6 to 36.0°C and minimum temperature from 12.0 to 28.1°C during the year.

The soil of RHRS farm is placed under Jalalpure series which is deep, moderately drained clayey soil with medium fertility, classified as deep black soil. The topography of the farm is fairly leveled. Chemical properties of the soil are as under

pH : 7.59 to 8.15

EC : 0.15 to 0.27 dSm

Organic carbon : 0.27 to 0.53 %

Available P₂O₅ : 13.9 to 36.3 kg/ha

Available K₂O : 250 to 671 kg/ha

Fe : 12.7 to 20.5 ppm

Mn : 29.2 to 49.9 ppm

Zn : 0.55 to 1.81 ppm

Cu : 2.95 to 6.28 ppm