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Identification of optimum cropping calendar and planting time of vegetables for home gardens in different agro-ecological locations of Matara District

Home gardens play a vital role in the economy of the small scale farmer. Therefore, water conservation in home gardens for irrigation becomes more important. Rain water harvested through roofs can be used to irrigate home gardens with water saving irrigation systems to use water more effectively in home gardens. In this endeavor, it is a need to consider the optimum cropping calendar and planting time of crops to avoid any water shortages during the crop establishment period.

The research was conducted to identify optimum cropping calendar and crop commencement date in respect to onset, magnitude and risk associated with water availability for crop production in nine locations of Matara district using the daily rainfall data for more than 35 consecutive years (1950-1995). The program "CROPWAT" was used to analyse the irrigation need. The crop coefficients of curry chilies detected under the subsurface pot irrigation and drip irrigation, were used for the water need assessment.

When planting date of curry chilies for "Yala" season falls on 12th meteorologicla week at Charley mount, Denagama, Dandeniya, Thihagoda, Kekandadura and Mapalana, the irrigation requirement approaches to be minimum. However the locations at Nilwala upper catchment have no irrigation requirement (anningkanda, Hiyare and Mawarala) when planting date falls on 9th to 15th meteorological weeks. During the "Maha" season, crop planning date elongates from 30th to 38th meterorologicl week for all locations.