Rainfall and the Length of the Growing Season in Nigeria

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ABSTRACT

This study examines the length of the growing season in Nigeria using the daily rainfall data of Ikeja, Ondo, Ilorin, Kaduna and Kano. The data were collected from the archives of the Nigerian Meteorological Services, Oshodi, Lagos. The length of the growing season was determined using the cumulative percentage mean rainfall and daily rainfall probability methods.

Although, rainfall in Ikeja, Ondo, Ilorin, Kaduna and Kano appears to commence around the end of the second dekad of March, middle of the third dekad of March, mid April, end of the first dekad of May, and early June respectively, its distribution characteristics in the respective stations remain inadequate for crop germination, establishment and development till the end of the second dekad of May, early third dekad of May, mid third dekad of May, end of May and end of the first dekad of July respectively. Also, rainfall at the various stations appears to retreat starting from the early third dekad of October, end of the first dekad of October, end of September and early second dekad of September respectively, but its distribution characteristics only remain adequate for crop development at the respective stations till around the end of the second dekad of October, middle of the first dekad of October, early October and middle of the first dekad of September respectively.

Thus, the active lengths of the growing season are approximately 5 months, 5 months, 4 months, 4 months and 2 months respectively. Plants that are short-dry-spell tolerant may thrive early in the rainy season, i.e. from the end of the second dekad of March to the end of the second dekad of May (in Ikeja), middle of the third dekad of March to the early third dekad of May (in Ondo), mid April to the middle of the third dekad of May (in Ilorin), end of the first dekad of May to end of May (in Kaduna) and early June to the end of the first dekad in July (in Kano), but other less tolerant plants should be planted starting from the end of the second dekad of May, early third dekad of May, mid third dekad of May, end of May and end of the first dekad of July respectively. The daily rainfall probability method is recommended as more efficient in the assessment of the nature and length of the growing season.

KEY WORDS: Length of the Growing Season; Rainfall Onset; Rainfall Cessation; Rainfall Probability; Cumulative Percentage Mean Rainfall; Nigeria

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