

Data for 10 years cultivation of rain-fed maize showed that crops failed when rainfall was equivalent to <54% of potential evapotranspiration and that with rainfall equivalent to >62%, grain yield was not related to available water but ranged from 3.4 to 5.1 t/ha. It was suggested that when rainfall is adequate, other factors are limiting. The higher yields were obtained when rainfall was concentrated in the latter part of the season and, it is suggested that soil or air temperatures or lack of sunshine limited yields when rain fell in the early part of the season.