Abstract

Farmers make various decisions in managing their farms that require informed use of climatic information in order to maximize production. Operational decisions like whether to spray pesticide in the afternoon and tactical decisions like which crop to plant in the coming season require shortrange and long range weather forecasts, respectively. Strategic decisions, like whether to invest in heavy machinery, on the other hand, require climatic type of information. From time immemorial, farmers in the southern rangelands of Kenya have evolved indigenous methods to guide them in their decision making. They are also willing to adopt strategies that reduce losses if accurate scientific forecasts of rainfall performance during a rainy season are given in good time. This study addresses this need by attempting to find if there is a reliable scientific way to tell when good or bad rainfall can be expected to occur so as to enable farmers to prepare well and maximize production during good rainfall and employ strategies that minimize losses during bad rainfall. Forty three years of mean monthly rainfall for Makindu Meteorological station were analyzed by comparing the data to the long term mean to determine whether periodicities of good and rainfall could be identified. Good rains were found to occur during the short rains in years ending with 2, 4, 7 and 8 while bad rains occurred in years ending with 0, 1, 3, 5, 6 and 9. This finding implies that farmers in the southern rangelands can expect to receive good amounts of rainfall in 4 out of every 10 years and bad amounts in 6 out of every 10 years.