

Rainfall distribution pattern and crop planning at Pusa in Bihar

K. A. SINGH , A. K. SIKKA and SUCHIT K. RAI¹

*ICAR Research Complex Eastern region WALMI, Complex Phulwari Sarif , Patna -
801505*

¹Indian Grassland and Fodder Research Institute, Jhansi-284003

Email: Suchitrai67@yahoo.co.in

ABSTRACT

Daily rainfall data of fifty two years (1952-2004) have been analyzed for establishing the long term averages of weekly, monthly, seasonal and annual rainfall and its variability. The annual rainfall at Pusa was 1222.3 mm and coefficient of variability indicated that rainfall was more or less stable over the years. Monthly rainfall had unimodal peak, July receives maximum rainfall of 331 mm followed by August (298.5 mm). The stable rainfall period was of 9 weeks, which spread over 27 to 37th standard meteorological weeks (SMW) except 32nd and 34th SMW. The average duration of rainy season is from 26 to 40th SMW. The initial and conditional probability of receiving 10 mm and 20mm weekly rainfall revealed that dependable rainfall occurs between 25 to 37th weeks. At 75% probability level rainfall of 9.5 mm can be expected to occur during 25th week. These pre-monsoon rains at 75 % probability level can be utilized for seedbed preparation for raising rice seedlings. Since, at 50% probability level, rainfall during 22 to 24th SMW ranges from 8.8 to 13.8 mm, thus summer crops (cowpea, black gram, green gram, maize and direct sown rice etc) could also be grown successfully in this region with supplemental irrigation.

Key Words: Rainfall pattern, initial and conditional probability and crop planning