551 - 594 - 221:551 - 577

CORRELATION BETWEEN LIGHTNING AND RAINFALL AT COIMBATORE

There is a local belief among the weather minded people that the frequency of lightnings in a particular period can be taken as an indication of rain in the coming months. To know more about this belief scientifically the data on lightning and rainfall collected at Coimbatore in a period of thirtynine years (1915 to 1953, both inclusive) were taken up for a statistical examination. The data pertaining to the period September to November revealed some interesting findings.

The number of lightnings in September was found to be significantly and positively correlated with the total rainfall in November $(r=+0.4151\pm0.1496)$. Likewise, the number of lightnings and total rainfall in the months of October and November appear to be positively correlated in a significant manner.

October Lightning and r = +0.3651Rainfall ± 0.1531 November Lightning and r = +0.3374

The month of September is the waning period of the southwest monsoon. October and November are the rainiest months at Coimbatore, recording respectively 27 · 2 per cent and 17.3 per cent of the total annual rainfall. This relationship between the nature of performance of the northeast monsoon in November and the frequency of lightnings in September seems worth further attention. If some more data are collected, drawing of an inference of more dependable nature may be possible in this connection. Further, the popular belief, namely, that "frequency of lightnings in a particular period foretells the adequacy of rains in the coming months" seems to have some scientific support.

C. BALASUBRAMANIAN

 ± 0.1548

Agricultural Research Institute, Coimbatore

January 13, 1955.