

BOOK REVIEWS

Queensland's rainfall history - graphs of rainfall averages 1880 - 1988.

Jacqui Willcocks and Philip Young.

Queensland Department of Primary Industries Information Series. 1991.

290 pp. A\$60.

This book provides a summary of the statistics of the rainfall received at 269 locations throughout Queensland over the last 90 - 100 years. It is printed on A4 bond paper from camera-ready copy and has a soft cover. The general layout is good with stations being listed in both alphabetical and latitudinal and longitudinal position. One page is allocated per station. A seven-page introduction provides a useful explanation of factors influencing Queensland's weather patterns, including the Southern Oscillation Index.

Queensland's rainfall is highly variable, with total annual rainfall, its reliability and seasonal distribution being dependent on both geographical location and altitude. Hence a good representative distribution of stations throughout the different regions of the state is important. This publication generally fulfils that requirement. The 269 stations are grouped into five geographic regions: north (37), central (38), western (80), southern (47) and south-east (67) Queensland. Understandably, the stations are concentrated in the more densely settled areas of south-east Queensland, although there is a surprisingly good distribution of stations throughout western Queensland. There are areas where representation is poor, for example, in the remote areas of Cape York in north Queensland and in the south-west corners of the state. Of greater significance is the lack of stations in the southern Brigalow area, north and west from Goondiwindi, and in the Capricornia region, in an area between Rockhampton and Emerald, stretching north from the tropic of Capricorn parallel to the coast, to a point south east of Charters Towers. In this case it may have been better to compromise the ideals of long term data records to gain some representative points in these two areas, both of which are important agricultural regions. Station altitude is not provided and is an important omission.

Tables of monthly and annual rainfall means, deciles and standard deviations are provided for each station. The reader is therefore able to determine the probability of receiving or exceeding a set amount of rain in any month or, conversely, the amount of rain that can be expected for a given probability of occurrence. Such information should be of interest to both research and extension workers, consultants, engineers, valuers and town planners. However, apart from a general interest viewpoint, the book is likely to be of limited use to farmers and graziers. The information in the book might have been of far greater use to farmers and graziers if it contained some examples of how to use the data in making risk decisions. For example, what is the probability of successfully growing winter crops or pastures at Eidsvold?

The book also presents graphical trends of both annual and seasonal (summer and winter) rainfall. Seasonal rainfall is displayed using both five and ten year moving averages, a technique that highlights long term trends or cycles by reducing the year-to-year variation, which is clearly evident in the graph depicting annual rainfall. Nevertheless, either the five or the ten year moving average would have been sufficient to portray these trends. The space might have been better used to provide additional information on the station, for example a location map.

The book will be a useful addition to libraries and for individuals who have a strong and ongoing interest in, or use of rainfall data. However, for the majority of individuals who are likely to be interested in only two or three stations, the \$60 price tag is likely to be a deterrent to the purchase of this book.

S.J. Cook.