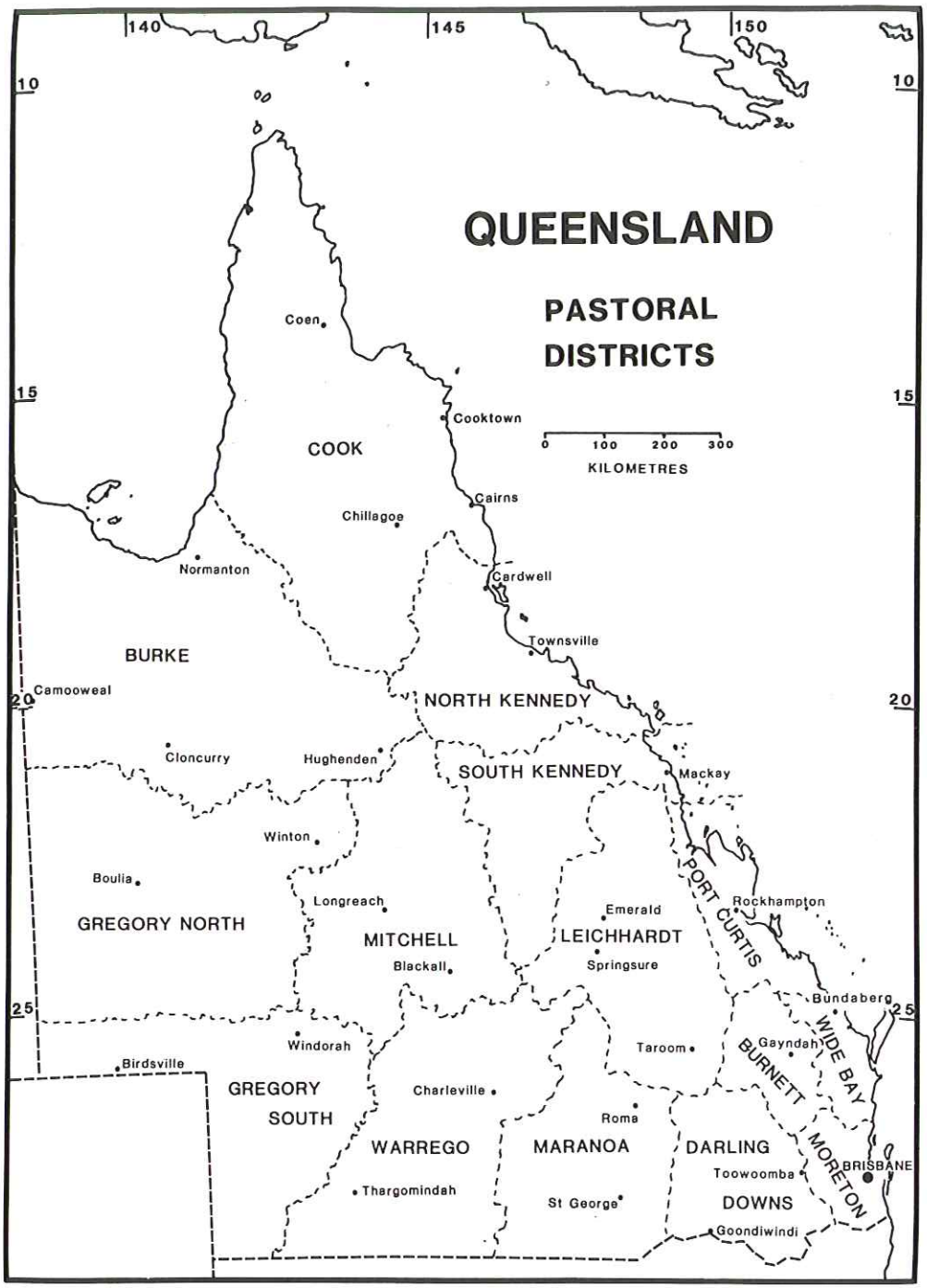

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A Guide to HERBACEOUS AND SHRUB LEGUMES OF QUEENSLAND

J·B·Hacker

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Identification is the keystone of biology

E.A. Bell, Director
Royal Botanic Gardens
Kew

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Foreword

It gives me special pleasure to write the foreword for this book. I watched and encouraged Bryan Hacker for several years as the project took shape. Bryan is a breeder of tropical pasture grasses, and the large effort required for the production of this book was fitted into an already full research program, and occupied countless days of "leisure" time. It was very much a labour of love, and reflects Bryan's passion for plants and his concern to tell people about them.

Legumes are among the most economically important and beautiful plants. The cultivated species have been closely studied. The legumes that are sown in pastures and crops in Australia have all been introduced from overseas. Their value to the Australian economy each year is measured in billions of dollars. Legume-based pastures provide the basis for the wool, meat and milk industries in southern Australia, and the nitrogen they fix drives the cereal crop industries. In northern Australia, the sown pasture revolution is newer but increasingly significant to the economy of Queensland. Temperate and tropical species such as lupins, soybeans, chickpeas, mungbeans, peanuts, field peas and beans provide multimillion dollar crops for Australian farmers. A great deal is known about the legumes we sow in this country.

In contrast, Australians are woefully ignorant about their native legumes. The number of species alone will surprise most people. Few of us could name or recognize more than a dozen or so of the hundreds of native legumes in Queensland, yet they are among the most beautiful, abundant and conspicuous wild flowers in the state. Their economic potential is largely untapped and unknown. Until quite recently, it was not even known that the wild races of cultivated mungbeans that occur in northern Australia are, in fact, native to this country. Many graziers recognize that a few legumes such as the Darling pea *(Swainsona galegifolia)* and some species of indigo *(Indigofera* spp.) are toxic or unpalatable to livestock, but there is a general lack of awareness of the extent and potential value of the countless biochemical compounds produced by legumes. These compounds are thought to have evolved mainly as defence mechanisms to protect protein-rich legumes from being eaten by insects or larger animals. Their potential usefulness as human medicines, drugs and industrial chemicals is still largely unexplored. Similarly, gardeners and plant breeders have been slow to exploit the beauty and diversity of our native legumes.

There has not previously been a concise, semi-popular treatment of Queensland's legumes. Bryan Hacker's book will help us to recognize and appreciate them. Increased public awareness of them will stimulate research on their biology, cultivation and use. The book will be a useful reference volume for landholders, conservationists, plant scientists, students and a wide section of the general public, and I commend it wholeheartedly to readers.

R.J. Clements
Chief, CSIRO Division of
Tropical Crops and Pastures

2 September 1989

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The staff of the Queensland Herbarium were enormously helpful in response to my questions relating to imperfectly understood genera and in identifying specimens collected and photographed. I would particularly like to thank Mr L. Pedley (who contributed the treatment of *Acacia* and also provided an (unpublished) key to *Tephrosia* which was used as the basis for the key in this book), Miss S.T. Reynolds and Mrs A. Holland. Mrs J. Thompson (Royal Botanic Gardens, Sydney) and Dr J.H. Ross (National Herbarium, Melbourne) generously provided information and assistance in the genera *Swainsona* and *Hovea* and Dr R.J. Lawn provided information on the genus *Vigna*.

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