harvested. They are grown with high rates of nitrogen (100 to 130 kg N ha^{-1} $crop^{-1}$) and irrigation. Over 1982/83 summer the first cleaning cut was applied late August 1982 followed by a nitrogen application and irrigation with the first harvest in mid November. A cleaning cut, nitrogen application and irrigation sequence was then applied and the 2nd harvest taken late January with the third crop started immediately and harvested mid April 1983. The same sequence is developing for the 1983/84 summer.

The material cut can be left on the ground if light enough or removed for other uses. Four hundred and fifty-five bales ha^{-1} of 6% protein material were removed in August 1983 following a moist, mild winter.

A nitrogen application of 130 kg ha^{-1} produces a crop 1.8 to 2.0 m tall which sags to 0.8 to 1.0 m as the crop matures. In so doing it increases the seed recovery by protecting the heads from wind shattering.

About five weeks after the clearing cut Dicamba and MCPA are sprayed for control of broad leaf weeds.

Irrigation requirements are seasonal, depending on rainfall and crop development. In 1982/83 250 mm were used over four applications. Uniformity of land and management practices are necessary to produce an evenly maturing crop. This is essential for choice of harvest date as there is no yield plateau evident, rather a sharp peak of standing seed.

Seed shatters readily and daily sampling suggests a quadratic trend in the presentation yield, with about four days during which yield of pure seed is within 15% of the maximum. Harvesting is with an unmodified Massey Ferguson 585 header with the wind cut to the minimum. It is not very efficient in recovery, losses of up to 50% of presentation crop being recorded.

Yields of 99+% purity have ranged from 61 kg ha^{-1} in May 1982 to 333 kg ha^{-1} in November 1983. The 1982/83 crop totalled 810 kg ha^{-1} from three harvests. Tetrazolium viability ranged from 92 to 45% and pure live seed from 56 to 168 kg ha^{-1} (1982/83 total 400 kg ha^{-1}).

The initial (May 1982) crop was low in yield and high for viability having been heavily cleaned.

Major conclusions are:

1. A high pure seed yield, in the order of 800 kg ha^{-1}, is possible from three harvests (November, January and April) per year.
2. Uniform management is required to promote even maturation.
3. Timing of harvest is imperative.
4. Seed viability may vary quite widely for reasons not presently understood.

BOOK REVIEW

Plants of the Kimberley Region of Western Australia by R. J. Petheram, and B. Kok—Photography by E. Bartlett-Torr (1983) ISBN 0–85564–215 7. Published by University of Western Australia Press, Nedlands, Western Australia, 6009 for the Rangeland Management Branch, Department of Agriculture, Western Australia. 556 pp A$20.00.

There has recently been quite a rash of books, and not before they were due, on the plants of various regions of Australia. These have varied in detail presented and method of presentation as well as price and style. The present book is a soft covered 21.5 × 15 cm by 556 page edition with a preliminary and three major sections plus appendixes. The introduction is an outline of "The Kimberley Scene"—Geology, Physiography, Climate, Population, Soils & Vegetation. History of Settlement and Pastoral Pursuits by K. Fitzgerald plus short sections on Rangeland Management Principles and How to use the book.

The three main sections cover: I. The Ground Story (Grasses and other herbs) II. The Middle Story (Woody shrubs and shrubby trees and III. The Upper Storey Trees). Within each of these sections there is a common name index against specific names and a two page treatment of each species or group of species. On the first page is a colour photograph (often with a detail inset) and opposite it a brief text of description (in lay terms) occurrence and value, the later including brief references to toxicities.

The photographs, considering the difficulties under which they would have been taken, which are outlined in Appendix II, are quite good although, even with the detail inset, I would, in many cases, find some difficulties in identifying the plants from them. The descriptions are also too short to be of a lot of help in confirming suspicions of identity.

The book has been arranged on the basis that either a common name or a specific name is known and the illustration/description used to confirm or deny this. The final pages are an all sections Botanical Names Index.

This book is not comprehensive, it covers only most of the common Kimberley species regardless of forage value, most valuable forage plants, indicators of pasture "condition", indicator plants of different soil and land types; representatives of common genera or to show variation within a genus and some common poisonous plants. There is, according to the authors, a better coverage of the East Kimberley plants than plants from the West and North Kimberleys. This was due to the authors being based on Kununurra when they were preparing the material.

Overall it is an excellent and worthwhile effort and the authors and publishers, including the Australian Meat Research Committee, who met some of the costs of publication, are to be congratulated.

D. G. CAMERON