A new tropical flora (review). It is right to give a review of the first volume of Backer & Backhuizen, Flora of Java*, a more general title, for its importance far transcends the island of Java. There are two reasons for this: first, Java itself is historically the hub of scientific knowledge of the flora of the Malay Archipelago; secondly this flora treats in detail the very numerous aliens which are now common to Java and most of the eastern tropics. It has long been recognized that the natural vegetation of these parts is nearly everywhere one form or another of tropical rain forest: man's clearing of this has opened vast opportunities which the species of the relatively meagre native secondary vegetation are ill-adapted to take: hence the success of the aliens, and the importance of their adequate coverage in local floras.

The format adopted here would not be everybody's choice. All the information given, descriptive, distributional, ecological, economic, nomenclatural is embodied in the descriptive keys. The result, however, is that we are promised a complete flora of Java, just over 6,000 species, in three volumes. It is doubtful if this would be possible in any other format.

The foundation of this work is the vast knowledge of the Javan flora built up by the late Dr. C. A. Backer during some 30 years on the island and many more working in the Netherlands. Onto this has been grafted the meticulous up-to-date taxonomy of Dr. Backhuizen van den Brink, Jr., who also has considerable field knowledge of the Javan flora. The respective shares of the authors are made clear in the introductory matter; but the book is essentially their joint endeavour. The version now printed is a new edition from the duplicated Dutch version started during the war. For the translation into almost faultless English the authors deserve the most generous thanks of the English-speaking world.

Botanically the text is of the highest quality, and the species and generic concepts, broad without being uncritical, appear admirably suited to a flora of this type.

This volume is scarcely open to criticism except at one point: and there it is serious. The key to the families is so formidable as to deter all but the bravest. Running over some 83 pages it lacks any breakdown into major groups—even monocotyledons and dicotyledons being mixed together. Does not this presume an ignorance of botany quite unlikely in anyone who will use an advanced flora? The lack of breakdown makes familiarity with the key very hard to acquire, and familiarity alone can speed identification. One will learn in time that achlamydeous groups (monocot or dicot) start at lead 799, gamopetalous groups at 403—and so on. But these points do not stand out in any way. Nor are there back-references to permit the retracing of one's steps. The key is so carefully constructed that each genus seems to have been checked: Euphorbiaceae comes in, I think, eighteen times—but always one must then start at the beginning of the 13 page key to the genera of that family. Here again grouping of the genera and cross-references to group as well as family in the main key would save an enormous amount of time.

Nevertheless a family key is not the most important part of a flora and everyone concerned with tropical plants will be eagerly awaiting the other two volumes of this work which is clearly going to stand for a very long time as an outstanding tropical flora.

B. L. BURTT.

* Flora of Java. By C. A. Backer & R. C. Backhuizen van den Brink, Jr., Vol. I, xxiv +648 p.p., 8vo. P. Noordhoff, Groningen, Netherlands 1963. Price Five Pounds Nineteen Shillings.