An Insect-moulting Hormone from a Plant

By M. N. GALBRAITH and D. H. S. HORN

(Division of Applied Chemistry, C.S.I.R.O., Melbourne, Australia)

THE observation[1] that *Podocarpus nakaii* contains compounds related to crustecdysone, the moulting hormone of insects[2] and crustaceans,[3] led us to examine other plants of the Taxaceae. We find that the wood of *Podocarpus elatus* R.Br., an Australian timber tree, contains considerable

quantities of a compound which is highly active in the *Calliphora* bioassay and has the same chromatographic properties, the same ultraviolet, nuclear magnetic resonance, and mass spectra as crustecdysone.[3] *P. elatus* is reported to be particularly resistant to insect attack[4] and this suggests that the hormone has been elaborated by the plant to interfere with the growth processes of insect predators. The discovery of a rich source of this important invertebrate hormone will now permit more extensive studies of its biological action and its evaluation as an insecticide.

(*Received, November 14th*, 1966; *Com.* 890.)

[1] K. Nakanishi, Eleventh Pacific Science Congress, Tokyo, August 1966, and personal communication.
[2] D. H. S. Horn, E. J. Middleton, J. A. Wunderlich, and F. Hampshire, *Chem. Comm.*, 1966, 339.
[3] F. Hampshire and D. H. S. Horn, *Chem. Comm.*, 1966, 37.
[4] R. T. Baker and H. G. Smith, "A Research on the Pines of Australia", Government Printer, Sydney, 1910, 437.