ABSTRACT

Two different approaches were used to study hypoglycin biosynthesis in *Blighia sapida*.

The first approach involved infiltration of likely precursors labelled with ^{14}C through cut ackee stems bearing healthy developing fruits. Hypoglycin was extracted from the fruits and the extent of ^{14}C-incorporation determined.

The second approach involved a study of selected steps of the proposed biosynthetic pathway through:

(a) identification of postulated enzymic reactions and
(b) identification of 2-(methylenecyclopropyl) glycine, the product of a postulated intermediate of hypoglycin.

A biosynthetic pathway is presented based on the evidence which emerged. It involves:

(a) addition of two 1-carbon units to α-ketobutyrate
(b) condensation of acetyl CoA with the α-keto analogue of 2-(methylenecyclopropyl) glycine and
(c) subsequent steps analogous to the biosynthetic pathway for leucine.