

cesses mutation, variation, selection and adaptation operate in tumour-cell populations are described. The author accepts the view that selection exerts a delaying effect on the incidence of common cancers until after the reproductive period and as a result the peak-incidence of cancer in man is shifted to a later age. This idea, first put forward by E. B. Ford, has important consequences and it could and should be tested experimentally.

Huxley's review represents the biologist's attitude to cancer, according to which cancer is "not a disease at all but an assembly of many different diseases having a certain symptom in common", the elucidation of which is bound up with advances in a number of key fields of present-day biology. He believes that in the future organization of cancer research the various disciplines of general biology and medicine must work together if true progress is to be achieved. Huxley's book is a testimony of this belief as well as a rich source of information and ideas, which should benefit biologists as well as clinicians. Reading the book, one often comes across problems, which are illuminated by Huxley's analysis from an entirely new angle; for such moments his labours are well rewarded.

P. C. KOLLER

## THE INDIAN MANGO DISPLAYED

### The Mango

By S. R. Gangolly, Ranjit Singh, S. L. Katyal and Daljit Singh. Pp. xiii+530 (278 plates). (New Delhi: Indian Council of Agricultural Research, 1957.) 85s.; 12 dollars.

THE mango, "the choicest fruit of Hindostan", has escaped much of the scientific study to which other popular fruits have been subjected. It has been cultivated in India from earliest times, and seedling propagation during many centuries has produced innumerable varieties showing, as an authority has remarked, a gradual continuous change in their characters, intergrading in range. Within the past 400 years, vegetative propagation has been used to perpetuate desirable trees, and cultivars recognized by appearance and name have been increasingly grown.

The object of this book, compiled by four pomologists under the auspices of the Indian Council of Agricultural Research, is to describe the most important of these cultivars and to register in permanent form their names and special features. After short introductory chapters on the place of the mango in India and on its botany, an account is given of the characters reckoned of importance in distinguishing cultivars, and there follows, in the main part of the book, a survey of 210 of them, each portrayed by a life-size coloured illustration on one page and a verbal description on the next. A short concluding section discusses the cultivation of the tree, and the pests and diseases which attack it, and some quantitative characters of the cultivars are given in an appendix. The illustrations are attractive, the descriptions have every appearance of care and precision, and from their study the reader can readily see the wide range of characters exhibited by Indian mangoes. The book is nicely printed and attired and has a good bibliography and index. In what they have attempted, the authors and publishers could scarcely have done better.

It is, perhaps, being ungrateful to wish they had attempted just a little more. Nearly fifty years ago,

Burns and Prayag, writing of the multiplicity of forms of mango, added: "Without some classification we have chaos. According to what scheme can this chaos be reduced to order?" They tried a scheme themselves, grouping the mangoes on fruit characters, the round-fruited, the long-fruited, those with beaks, those with ridged shoulders—a rough-and-ready arrangement, perhaps, but at least some attempt at grouping. Later workers in India and elsewhere (including one author of this book) have added to it, and the reader might be excused if he opened this new book hoping to find a further step taken in arranging the hordes of mangoes into some sort of ordered scheme. In this he would be disappointed. The cultivars follow each other according to the alphabetical order of their common name and, although distinguishing characters are mentioned for each, no attempt to group them is made. The reader wishing to name a fruit is unprovided with a key to help him, and must thumb his way through more than 400 pages to find the picture and description which best correspond.

It may be that mango cultivars are even less apt than those of the apple to fall into convenient classes, and the authors perhaps thought any grouping too unsatisfactory to adopt. Or they may have it still in mind, and this study may be a preliminary stage to a well-found system of classification. In any event, we are indebted to authors and artist for having gone so far in making accessible a new store of information about the mangoes grown in various parts of India, and in clearing away some of the confusion which surrounded their identity.

T. A. RUSSELL

## THEORIES OF EVOLUTION

### The Origins of Life

By Albert Ducrocq. Translated by Alec Brown. Pp. xvi+213+4 plates. (London: Elek Books, Ltd., 1957.) 25s. net.

### The Evolution of Living Things

By Prof. H. Graham Cannon. Pp. x+180. (Manchester: Manchester University Press, 1958.) 12s. 6d. net.

AMONG the many fascinating speculations which confront students of evolution are two which enjoy considerable priority. How does the infinitesimally small gene particle exert its all-powerful influence on hereditary developments? Can individual characteristics be transmitted by some form of cytoplasmic inheritance? Despite much investigation and many thoughtful hypotheses the answers to the questions are far from satisfactory. It is a pleasure, therefore, to recommend two books where views on these matters are so vigorously propounded that, even if unacceptable, they are bound to attract attention.

Albert Ducrocq is a French electronic engineer who uses his experience of cybernetics to investigate the origins and development of living matter. As a background to the biological discussion Ducrocq describes the nature of the mechanisms involved in the control mechanisms used in automatic factories and compares them with the complex system of homeostatic controls used by the living creature. After dealing with contemporary biochemical research into the origin of life, he then indicates how investigations into the use and applications of computing