

of iso-chromosomes. An interesting explanation of unequal distribution of cytoplasm when the generative nucleus is formed lies in the eccentric position of the primary nucleus before division. At mitosis, one of the daughter nuclei is therefore nearer the cell wall than the other, a difference in position which is accentuated by the infiltration of ribose nucleic acid into the zone between the two nuclei. Harlan Lewis, a visitor from the United States, shows some interesting similarity in range of chromosome numbers between *Clarkia* and *Godetia*. Cytology of *Narcissus* varieties is reported by Miss A. P. Wylie. The ancestral species *N. pseudonarcissus* and *N. poeticus* are diploid ($2n = 14$). Triploid varieties, raised about 1860, include Emperor, Empress and Sir Watkin. The variety King Alfred was one of the first tetraploids.

In the Garden Department, W. J. C. Lawrence again demonstrates the beneficial effects of twenty days of artificial illumination of tomato seedlings, showing increases of subsequent fruit yield, particularly in the early pickings, and average 10-16 per cent increase over the whole fruiting season. Other investigations include the use of 'standardized' loam, the best methods of raising particular plants, and the use of soil blocks instead of pots for growing plants.

A review of such a concentrated annual report must of necessity be somewhat invidious. There is a good deal of information for the teacher, the advisor and the research worker; such persons must, however, be referred to the report itself, or to the numerous specialist papers cited therein.

INTERNATIONAL CONFERENCE ON SCIENCE ABSTRACTING

AN International Conference on Science Abstracting, arranged by the United Nations Educational, Scientific and Cultural Organisation, was held during June 20-25, 1949, at Paris, and the Final Act has now been made available (Paris: Unesco House, 19 rue Kieber).

This Final Act was inspired by the conviction of the important place of abstracting and indexing services in scientific communication and of the inadequacies of the present overall arrangements. The Conference regarded the objectives of abstracting in science as complete coverage by abstracts of all papers containing new information, and adequate access to abstracts for all men of science in all countries. To this end, in the Final Act a number of specific recommendations are detailed. These include, besides the continuance of Unesco's efforts to promote the free interchange of scientific literature among different countries, the extension of abstracting and indexing services to cover such fields as agriculture and applied biology, which are not at present covered. Abstracting services are also recommended to provide separate sections for information on new scientific and technical apparatus and equipment, where this is not already done. Publication of abstracts, particularly agricultural abstracts, in additional languages is also urged, and abstracting agencies are recommended to co-operate by extending agreements for the exchange of abstracts and of original material for abstracting, and by defining their respective subject fields. The Conference noted that the Abstracting Services Consultative Committee, serving the interests of the United Kingdom and of the

British Commonwealth and embracing the whole field of science, had recently been established in London, and that the Unesco Co-ordinating Committee on the Abstracting and Indexing of Medical and Biological Sciences had been constituted on a permanent basis. The Conference recommended similar action in other regions and for other subjects, suggesting that regional or national committees on a voluntary basis should be formed to ensure that scientific publications in their own region are adequately listed and abstracted, and that scientific workers in their region are supplied with abstracts of papers published in foreign countries.

The formation of subject committees at an international level to co-ordinate abstracting in the major fields of pure and applied science is also suggested; and in particular it is recommended that Unesco should invite the appropriate bodies to co-operate in establishing subject committees of users and publishers of abstracts of physics and engineering, pure and applied chemistry, agriculture and applied biology, and should offer these committees facilities similar to those already provided for the Co-ordinating Committee on the Abstracting and Indexing of Medical and Biological Sciences. The Conference also endorsed a proposal for the publication under international auspices of a general abstracting periodical for physics, pure and applied, including astrophysics and the geophysical sciences, and possibly branches of engineering, and recommended the formation of a committee for this purpose. Other recommendations were in line with those of the Royal Society's Scientific Information Conference last year and relate to such details as the provision of synopses (the "Guide for the Preparation of Synopses" issued by the Royal Society being suggested as a basis for discussion), titles and the presentation of abstracts, lists of periodicals abstracted and of references and tables of contents, as well as to terminology and nomenclature. Publication, at least every five years, of a directory of indexing and abstracting services is recommended, as well as the establishment of regional bibliographical centres and depositories for published and unpublished works. Finally, the Conference urged support of the development of a standardized classification, and also the need for detailed evaluation of the various systems proposed for chemical notation, in view of their value for recording chemical data and possible application in indexing; and also the convening of a small conference of experts to lay the foundation for an international code for use with mechanical or electrical devices for selecting documents.

To the general importance of most of these matters most scientific workers would subscribe, and in Great Britain a committee has already been set up, under the chairmanship of Dr. C. W. M. Findlay, to consider problems of abstracting in the light of the discussions at the Royal Society's Scientific Information Conference last year. The "Guide for the Preparation of Synopses" was prepared by this Abstracting Services Consultative Committee. Not all these matters mentioned, however, are of the same urgency or importance, and financial considerations may well dictate that in the first instance attention be concentrated on only a few of them. The Unesco Abstracting Conference itself recognized that the provision of financial means would require special consideration, and suggested that on this point also Unesco should consult the World Health Organisation and the Food and Agriculture Organisation.