

The method of attack was to select a large team of highly qualified younger scientists from various behavioural sciences. Each was assigned a problem and they all attended an eight-week work-session during June 17–August 10, 1957, for interdisciplinary activity, that is, a kind of prolonged super-symposium. Such a method clearly has advantages, but there is the view that new ideas are produced by individuals and not by committees, the young research worker receiving daily inspiration and guidance in the laboratory of his chief. Both methods may be combined.

Dr. Rapoport writes: "The title of this volume reflects a delineation of areas of study which is different from the traditional delineations suggested by university departments. There is no university department concerned with either 'decisions', 'values', or 'groups'. Decisions are studied, of course, by psychologists, by political scientists, and by military strategists. A 'decision theory', however, should transcend these special content areas". Similarly, "Values are studied by philosophers, by economists, by psychiatrists and by anthropologists from different points of view and by different methods".

The change of pattern in air-force research during the past forty-five years is obvious. In the First World War it was largely sensory. Many of the problems were solved under the direction of two men working in close collaboration, the physiologist, General Wilmer of the United States, and the psychologist, Prof. Spearman of Britain. Thus, when more than seventy ace pilots were tested by means of a battery of ocular tests, it was found that most tended to do well. One exception, who did badly in one test, was a famous ace who lacked the ability to land his plane undamaged. He was always given another. In the Second World War, air force research was more concerned with intellectual capacities. At the present time, we have noted that research has embarked on the scientific study of values. Is it too sanguine a hope that this will eventually help to abolish war?

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DISEASES OF ORNAMENTAL PLANTS

Diseases and Pests of Ornamental Plants

By Pascal P. Pirone, Bernard O. Dodge and Harold W. Rickett. Third edition. (An official publication of the New York Botanical Garden.) Pp. x+775. (New York: The Ronald Press Company, 1960.) 10 dollars.

THIS book follows very closely the plan of the second edition but has been brought up to date by the inclusion of the latest information concerning the control of pests and diseases. In addition, the authors have revised the nomenclature of the pathogens to accord with the present views of taxonomists and plant pathologists. It is also evident from the increased number of entries under the various host plants that many new pests and diseases have been recorded in the United States since the publication of the previous edition twelve years ago.

The book is divided into two parts. The first contains an introductory chapter on "Plant Diseases" in which the diseases are classified and described under symptoms and causes. This is followed by a chapter entitled "Bacteria and Fungi" (viruses

are, rather surprisingly, omitted) in which the structure and classification of these organisms are briefly discussed. It is here that one finds (p. 39) the rather sweeping statement that "Recent improvements in staining techniques, however, have revealed one to three septa (cross-walls), showing the bacterial body actually consists of two to four cells". Likewise the observation (p. 42) that "The threads (hyphae) of many fungi are composed of fundamental structural units, cells, found generally in plants and animals" is apt to be misleading as it stands. Mycologists will also, no doubt, be surprised to learn (p. 66) that "It should be understood, that every species of fungus now classed among the imperfect fungi will ultimately be found to be connected either with some ascomycete, basidiomycete or phycomycete". The third chapter is devoted to a general account of "Insect and Other Animal Pests" and is followed by one on "Control". This latter chapter contains much useful information on such topics as disinfection of seeds, bulbs, clothing and hands; pasteurization of soil; fungicides, bactericides, insecticides and miticides; spreaders; and equipment. General advice on the choice, preparation and application of fungicides, bactericides and pesticides is also included.

The second part of the book consists of an account of the individual pests and diseases of particular host plants, which are arranged in alphabetical order according to their Latin names. This section appears to cover the subject very thoroughly, although there are omissions such as the failure to mention witches' brooms of *Carpinus* caused by *Taphrina* spp., but such instances are few.

Detailed comparison between the entries of the fungus diseases in this work with those of the second edition shows a number of omissions, but these would appear to be due to the authors having restricted themselves to diseases occurring in the United States. Sometimes, however, the wording in the second edition is such that one is not always clear whether the disease actually occurred in that country. There is one rather odd instance of an entry in the second edition under *Anemone* of rhizome-rot said to be caused by *Sclerotinia tuberosa* for which symptoms are given together with a full account of the fungus. The disease is said to be "irregular in its occurrence. It is found naturally on wild plants, but is not common in gardens around New York City and in cultivated plantings; it can be very destructive", all of which clearly implies its presence in the United States. In the third edition under review there is also an entry of rhizome-rot under the same host, but here the causative agents are said to be *Pellicularia rolfsii* and *Sclerotium delphinii*. No mention is made of a disease caused by *Sclerotinia tuberosa*.

In conclusion, it may be stated that the appearance of this third edition of *Diseases and Pests of Ornamental Plants* will be welcomed by plant pathologists and growers, especially those in the United States, although its usefulness is by no means confined to that country. Its faults are few and relatively unimportant since they are unlikely to cause serious inconvenience to the average person using this volume as a work of reference. It is attractively produced and very well illustrated. Furthermore it is printed in larger type than its predecessor which makes for easier reading.

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