

## Book Reviews

**Chromosome Botany.** C. D. Darlington. Allen & Unwin, London, 1956 (order from Macmillan, New York). 186 pp. Illus. \$2.75.

C. D. Darlington's book is devoted largely to the role of the chromosomes in the evolution, differentiation, and distribution of plant species in nature and in cultivation. He shows how cytogenetic analysis has clarified the origin and relationships of many species of flowering plants.

In considering the factors responsible for variation and speciation, Darlington discusses hybridization, polyploidy, structural chromosome changes, aneuploidy, and apomixis. The effect of polyploidy on the geographic distribution of species is shown to be related to adaptation to new territory and not necessarily correlated with latitude or elevation. The migration of species is correlated with chromosome change, although "an ecological diversity at the centre of a species demands a morphological and a genetic diversity, but it does not so imperatively demand a chromosome diversity."

The consideration of the origin and evolution of the cultivated economic plants in less than 30 pages necessarily limits the material presented, but it is surprising that Kihara's outstanding work on the cytogenetics of wheat is not mentioned. The chapter on the chromosome relationships in the ornamental plants is a little more adequate, although it is largely confined to work done in England.

According to Darlington, systematic botany "continues to rest half-poised on the eighteenth-century fiction that the living world is inhabited by fixed species which exist, on the one hand, as 'types' represented by original specimens in museums and, on the other hand, as 'varieties' diverging from these types by some ineffable process of mutation." Such criticism is no longer justified, since most taxonomists now use the tools of cytology, genetics, ecology, and internal anatomy in their investigations. But many of the older taxonomists, using only herbarium specimens, often showed great ability, or intuition, in separating species into groups which have withstood subsequent cytogenetic tests. And, as

Darlington points out, John Ray in 1686 defined a species in terms that are still valid.

*Chromosome Botany* is too limited in its scope to be used as a textbook, but it should be of interest to all botanists, agronomists, and horticulturists who are interested in the evolution, relationships, and improvement of plant species and varieties.

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**Report of the Special Committee on the Federal Loyalty-Security Program of the Association of the Bar of the City of New York.** Dodd, Mead, New York, 1956. xxvi + 301 pp. \$5.

To an area of public policy befogged by irresponsible charges, questionable statistics, and widespread misunderstanding, this report by a committee of distinguished practicing lawyers brings a new light of temperance and reason. The study was sponsored as a public service by the Association of the Bar of the City of New York and was financed by a grant from the Fund for the Republic, Inc. Dudley Baldwin Bonsal headed the committee, which was aided in its work by a small legal staff under Elliott E. Cheatham of Columbia University Law School. Some 150 informed persons, in and out of government, provided information from their experience on the operation of the federal loyalty-security program. The result is a carefully weighed review of the manner in which it has operated and a series of specific recommendations for making it more effective where it is most needed and less of a menace to justice and freedom where it has been overextended.

Early chapters discuss the basic problem of reconciling liberty with security, the nature of the Communist threat, and the countermeasures by the United States to meet the threat. The threat is seen as clear and unmistakable; the need for countermeasures, indisputable. But the committee notes that "if fear of totalitarianism were to force us into coerced uniformity of thought and belief, we should lose security in seeking it" (p.

27). Thus the need is for a security program that can continue indefinitely without interfering with scientific or economic development and without undermining the average citizen's sense of freedom and fair treatment by his government. Underlying the entire report is this thesis that myopic preoccupation with secrecy and security measures must not jeopardize this more vital and fundamental basis of true national security.

Personnel security programs are, of course, one phase of internal security. There are now several of these, covering some 6 million workers in and out of government. The committee would reduce this coverage to about 1.5 million by limiting the program to truly sensitive positions and abandoning outright the Port Security (seamen and longshoremen) and International Organizations Programs. Remaining with little change would be the Department of Defense Industrial Security Program, covering about 3 million workers in private industry, and the Atomic Energy Commission program, applicable to some 80,000 of its own and private contractors' employees. The program covering some 2.3 million civilian employees of the Federal Government under Executive Order 10450 would come in for a substantial overhaul, for it is here that the weaknesses in the current programs are believed to be most marked. These weaknesses are summarized as (i) lack of coordination and supervision among the programs, (ii) excessively broad coverage, (iii) too great rigidity in standards and criteria in view of the variety of elements to be considered, and (iv) the failure of security procedures at present to protect adequately the interests of either the government or its employees.

The committee's recommendations to overcome these weaknesses are clear and to the point, although they are too extensive for detailed recital here. A Director of Personnel and Information Security would be established in the Executive Office of the President, both to assure uniformity and fairness in the various programs and to help control the classification of information, since access to the latter tends to determine which jobs are "sensitive." The committee anticipated somewhat the Supreme Court decision of 11 June 1956, in *Cole v. Young et al.* (351 US 442) when it recommended that security clearances apply only to sensitive positions and to no others. The now infamous policy of "guilt by association" implied in uncritical use of the Attorney General's list of subversive organizations would be abandoned in favor of a policy permitting balanced judgment of suitability for employment in the light of all the evidence available. The committee recommends that the list itself either be abolished or