

budding) applicable to different members of the group, and this is followed by a detailed description of the methods recommended, for each of the genera arranged in alphabetical order, with special subsections for any species or varieties which require different treatment. This arrangement is an excellent one for the purpose of the book. Anyone faced with the problem of propagating a particular shrub or tree will find at once, under the genus heading, a description of the various methods which are practicable, with the necessary details as to time, cutting or grafting material, treatment, etc., with recommendations as to which method to adopt under various conditions. Reference to the introductory section will only be necessary for the novice or amateur who is not familiar with the general technique, and the expert in general horticulture receives just the details he requires to supplement his knowledge, when faced with the propagation of a plant he has not hitherto tackled. On the other hand, even the expert will find valuable suggestions in cases with which he is already familiar in practice.

This arrangement of the work undoubtedly involves a great deal of repetition. Many of the methods are applicable to a number of the genera; but the great advantage is that those who consult the book do not have to refer to different places for such information as they require, but can, as a rule, obtain it in one or two pages.

In the general description of propagation methods at the beginning of the first part, the appliances for raising plants under glass, cold frame, sun frame and close frame are discussed and drawings given of practical and useful types. Moreover, excellent diagrams and illustrations are provided of the different ways of preparing and planting cuttings, and carrying out the various methods of grafting and layering.

The author has not included in his prescriptions the use of hormones or chemical substances to induce root production. He quotes one experiment in which, though treated cuttings rooted more quickly and more abundantly than untreated ones, the subsequent behaviour of the plants indicated that the untreated ones soon overtook the others in growth and showed more vigour. He suggests that further experiments should take into consideration the ultimate condition of the plant, that is, for a period of three years at least, or until it is quite certain that no detrimental effect on the plant has been sustained in the process of propagation. He thinks that, up to date, no real commercial advantage has been gained by the use of growth substances for the propagation of plants by cuttings. In his view, it would be advisable if research stations based their experiments on the question of desirability of method rather than possibility. From the practical point of view there are often other methods of propagation more suitable than the use of cuttings. This is doubtless often true in the case of ornamental varieties of trees and shrubs where small quantities may be propagated by grafting or layering; but the help of growth substances may prove very valuable where, for example, difficult species, such as the *Abietineæ*, have to be reproduced vegetatively for the purpose of building up stocks of special genotypes for breeding purposes or ultimate production of supplies of *élite* seed. This book, however, is concerned with ordinary practice, and special strains of the *Abietineæ* of ornamental value are few. *Glaucus* varieties of cedar, *Picea pungens*, etc., may be raised in small numbers by

grafting or cuttings by the methods described in the book; but even in these cases the author recommends the selection of the most desirable individuals from batches raised from seed. The *Cupressineæ* and most of the other conifers do not present special difficulties.

The completeness of the descriptions of different methods of propagation, helped by Mr. O. Miller's excellent illustrations, the sound advice given and the convenient way in which the subject-matter is arranged, combine to make the work a first-rate handbook of its subject, which will be of the greatest value to all who are interested in the propagation of trees and shrubs. It will probably form a standard text-book of this branch of horticulture.

T. THOMSON

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THE PRACTICE OF FARMING

Profitable Ley Farming

By John Laity. (Agricultural and Horticultural Series.) Second edition, revised. Pp. xiv + 271 + 26 plates. (London: Crosby Lockwood and Son, Ltd., 1948.) 15s. net.

HOW many of us, after a walk with a competent farmer found his crops and stock, have later endeavoured to recapture the essentials of his system and his particular approach to the tricky problems that farming, of all occupations, provides? These efforts to record other people's experience are only partially successful because, in the course of ordinary conversation, it is not possible to enter another man's mind or obtain a sufficiently exact picture of his operations. The only real way is for the farmer to make the record himself, and for various good reasons practically no farmer will do it. Journalists turned farmer may do so, technically minded individuals with a 'system' will do so, but not, as a rule, plain farmers. Mr. John Laity is an exception. His book is a straightforward account of the style of farming that he has developed and found successful in the course of many years on his farm near Mount's Bay in Cornwall. The basis is good grass to support a sound livestock husbandry and to provide, when ploughed up, a reserve of fertility for arable cropping. Great importance is attached to the seeds mixture, which closely follows the Clifton Park prescription of drought-resisting species and excludes rye grass. Although Mr. Laity has obviously studied the technical side of farming—"one of my hobbies in life," he says, "has been the reading of old and new writings on agriculture"—he obviously has an independent and critical mind, and some practices, which in his hands are claimed to give good results, may appear to conflict with accepted doctrine.

The whole scheme of farming is taken crop by crop and described in considerable detail, yet in an almost conversational style. The chapter on broccoli is a case in point; the reader feels that he could almost set about growing broccoli after studying these twenty-two pages. There is room for more books like this. The recording of successful practice is an important branch of agricultural literature. Undoubtedly much of the success is to be attributed to energy and ability in management, as distinct from the ready adoptions of technical advances; but the operations of these men always throw up questions that may well be the subject of critical examination, not by the farmer himself, for no farmer has the time or resources for this, but more appropriately by the experimental station or husbandry farm.