

John Barleycorn.

The Barley Crop: a Record of some Recent Investigations. By Dr. Herbert Hunter. Pp. viii + 166. (London: Ernest Benn, Ltd., 1926.) 10s. 6d. net.

THIS little book serves to illustrate a thesis which frequently finds expression in this journal—that science embraces more than the mere ascertainment and enunciation of the laws of Nature: it connotes a logical system universal in its application. When in 1900 the Irish Department of Agriculture, in association with a leading firm of brewers, set out to solve the problem of what is the best barley to grow in Ireland, they attacked it scientifically. They cleared the ground of so-called practical opinions depending, as they do so often, on irrational ideas and traditions, and from the outset employed the tools upon which, as Kelvin once declared, all accurate scientific work must be founded, namely, weighing and measurement.

After upwards of twenty years of careful work, a variety of barley was found which can be proved to be best, and, as a matter of fact, it now occupies 90 per cent of the total area under the crop in that country. It is a further tribute to the value of scientific work that the variety of barley in question was ultimately made 'according to plan' by the application of the discoveries of Mendel to the problem. The author of the work under notice, Dr. Hunter, to whom the credit of the final achievement is due, has an interesting story to tell, and it is a story with a lesson for the plant-breeder and administrator with a definite economic object in view; a lesson, moreover, learned and practised in other countries which (like Ireland in pre-War days) possessed a Government ready to adopt the teachings of the scientific worker.

The finding and making of a super-barley followed what is now a well-trodden path: first, the recognition that the age-old varieties of the farmer are populations of various genetic types; the isolation of pure lines by propagation from a single plant; and, finally, the crossing of two pure lines in order to effect an exchange of desired characters. The first ten years were spent in isolating a pure line of "Danish Archer" barley as the best of existing types, giving both yield and quality, but possessing a weak straw: the next five in extracting the stiff straw from "Spratt" barley, transferring it to "Archer" and building up a stock of seed, starting again, be it noted, from a single plant. In the end, as already noted, nearly 100 per cent. of the barley area in Ireland is now sown with "Spratt Archer." Note also that when the original plans were laid in 1900, Mendel had just been re-discovered,

Johannsen's pure line had not been heard of: scientific methods were the only guide.

There was much the same story to tell in noticing Mr. A. Howard's book on "Crop-Production in India," and there also the plant-breeder's work has been exploited by the State. As Mr. Howard has said, the making of a new variety is futile, unless some means of introducing it to the farmer can be definitely organised. Nor is it less important, as Dr. Hunter points out, to provide for a continuous flow of pure seed ever after.

A few words of criticism: Dr. Hunter does not indicate what the desired quality of barley, other than low nitrogen content, may be, or the part played by diastase in the malting process. It is not quite clear, either, what effect various manurial treatments of the soil may have on quality. In a future edition it might be well to bring the statistics of barley acreage and yield in Ireland down to a later date than 1922. Finally, a problem is suggested by the graphs of nitrogen content and yield. May it not be the case that high nitrogen content of the seed promotes vigorous growth and that, consequently, a super-excellent malting sample (within the line) is not necessarily a good mother for the resulting plant? We seem to recollect some work of Dr. Beaven (of barley fame) which suggests this query.

We must compliment the author not only on a successful piece of work, but also on the interesting account he has written of its progress and results. It should prove of extreme interest to the enlightened farmer, the professional plant-breeder, and even to the ordinary men, who, through the ages, have hymned John Barleycorn and his products! A. B. B.

Labour Policy in Education.

From Nursery School to University: a Labour Policy.

Report of the Education Advisory Committee of the Trades Union Congress and the Labour Party. Pp. 93. (London: Trades Union Congress and the Labour Party, n.d.) Paper, 6d.; cloth, 1s.

THE little book which has just appeared with a foreword by Mr. Ramsay MacDonald follows lines now well understood in the matter of labour zeal for public education. It is the strongest side of Socialist policy, and all those who have experience, either official or private, with educational work, will testify that members of the Labour Party are foremost everywhere in their efforts to promote the education of the people.

Those who feel compelled to take a somewhat critical attitude will fasten on three points in the manifesto before us which give occasion to pause, if not actually