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Britain's Food Supply Basis.

THE papers read at the successful International Potato Conference held in London last week indicated the many points of interest which the potato presents for plant pathologists, breeders, and cultivators; but there was no topic discussed by the experts, who dealt with the technical problems presented by the crop, which has so much interest for the general public as the place which the potato should take in our national food economy. To this subject close attention has recently been directed in connection with the uses of the potato in time of war.

In a paper read before the Agricultural Section of the British Association at the Edinburgh meeting last September and now published in pamphlet form,¹ Lord Bledisloe remarked:—

“During the late war it was assumed by practically the whole British population . . . that bread made of wheat flour was the unalterable staff of life. . . . I desire to propound the view that, in a like emergency, potatoes, supplemented by pig-meat and a larger output of milk, would probably afford a less precarious basis for Britain's food supply than wheat, and a better insurance against national starvation.”

Lord Bledisloe marshals his points with much ability and industry, and he sets them out in a series which, if the public's right to self-determination in the matter of diet had been admitted, would have numbered exactly fourteen! In an emergency, however, there can

¹ “Potatoes and Pigs with Milk as the Basis of Britain's Food Supply.” By Lord Bledisloe. (With some Hints as to the Production of Each.) Pp. 59. (London: Hugh Rees, Ltd., 1921.) 1s. net.

be no self-determination, and so we have the whole case for potatoes and pigs; but there is little regard for the counter-claims of wheat, and none at all for the merits of oatmeal, an omission one would not have expected in an address delivered so close to the Heart of Midlothian!

Let us first take the case stated for potatoes. The crop is far more productive than wheat, yielding twice as much energy per unit of area. It can be grown successfully in every part of the United Kingdom, whereas wheat is suited to the dry eastern and southern counties. Potato cultivation is simple—every farmer and every allotment holder has grown this crop; with wheat cultivation many farmers are “wholly unfamiliar.” Home-grown potatoes would be safe from the risks of marine transport; there were heavy losses in sea-borne wheat in 1917. Potatoes, grown everywhere, could be used locally, thus reducing transport; in preparation for long journeys “desiccation of the tubers” might be resorted to. Wheat is exposed to the incendiary bomb of the airman and to the pitiless rain of the British climate; the potato is safe underground, and though blight may appear its effects may be minimised by spraying. (But is the potato a safer crop than wheat? Have we already forgotten 1916? Was it the Corn Law only that was “rained away” in the middle of the 'forties? What was William Cobbett thinking about when he “resolved, fire or fire not, that working men should not live upon potatoes in my country”?)

With potatoes the pig is naturally associated; it may be fed on spoiled or sound tubers; it makes meat more economically than any other domestic animal, its flesh supplies the protein and the fat required to supplement the starchy potato.

The pig and potato policy was, of course, the outstanding pre-war feature of German agriculture, and Lord Bledisloe makes a conservative estimate of its effect on the endurance of that nation when he expresses the opinion that, but for its potato crop, German resistance would have broken down a year before November, 1918.

It is not quite clear how far Lord Bledisloe would propose to carry the substitution of potatoes for wheat. He would not reduce the British corn area, but, from the estimates which he presents, he appears to think that, by extending potato cultivation, our wheat importation during war might be reduced by at least 50 per cent., and even be abandoned altogether, for he states that 1,280,000 acres under potatoes would provide food equivalent to half our wheat imports, and that by

doubling this area and making some increase in pigs we could do without any importation of wheat.

There is much to be said in favour of a potato and pig programme in war, as German experience proves. We ourselves did everything possible to increase the potato area during the war, and though Lord Bledisloe suggests that we vacillated in the matter of pigs, this was inevitable. Every belligerent European nation vacillated in its pig policy, the Germans included. This class of live stock requires extraordinarily close watching; it easily becomes a danger, and in some stages of the war it may be questioned if there was any animal in Europe that served the Allied cause better than the German pig. The management of swine led to violent controversies between the agrarian and the urban population; eventually a pig holocaust was necessary to save the lives of the unfortunate city dwellers. German experience, indeed, does not wholly support Lord Bledisloe's proposition, for even their enormous potato crop—which before the war was three or four times greater than was necessary for human use—played them false. The storage and transport difficulties were immense, there were great losses from frost, and we cannot have forgotten the tales of woe caused by the indigestible kohlrabis which were used to supplement the scanty potato supply. Potatoes may be productive and highly valuable to nations at war, but no crop is more difficult to deal with; the echoes of the German Food Controller's language, when he discussed his potato problems in public, reached us here; and attentive listeners might have discovered that the perplexities presented by the potato excited even our own Food Controllers!

In the course of a great war it might be possible to stimulate potato cultivation to an extent that would reduce corn imports by 25 or 30 per cent., but to achieve the results proposed by Lord Bledisloe it would be necessary to follow the German example and in peace time learn to cultivate and use three or four times as large a quantity as our markets now call for. But it is certain that the farmer would find potato growing for such industries as distilling or starch making very much less profitable than corn growing. Pig feeding would pay better than alcohol or farina, but when the human consumer can barely afford the price necessary to maintain the existing acreage, what prospect is there of a threefold extension of potato growing for pigs?

The present position suggests a decrease rather

than an increase in the area of potatoes grown for market. Since the Armistice a change has come over the prospects of the crop. The great rise in the cost of transport and of fuel makes this food-stuff no longer cheap to the urban consumer. In London potatoes are now being sold retail at from 1s. 9d. to 3s. per 14 lb. At 2s. the cost of energy would be about 225 Calories per penny; in the 4-lb. loaf at 10d. energy can be bought at about 400 Calories per penny, and potatoes must be cooked. There has therefore been a decline in consumption. The large drop in the percentage of the retail price of potatoes and other vegetables now received by the farmer, because of the increase in transport and marketing costs, is a serious matter for the consumer, as well as for the farmer. It means that the market demand has become much less effective than formerly in providing a supply. Until we can greatly reduce the cost of bringing the potato from the farm to the urban consumer the prospect of increasing the area under potatoes as desired by Lord Bledisloe is not encouraging.

Pigs form a more hopeful subject; there is great scope for their increase in peace time. Their place in war is less certain. In any long war we should probably have to ask ourselves whether fat pigs could be allowed to exist alongside a nation of lean people. There would always be advocates for both, but ultimately, as in Germany, the lean people would prevail.

Priestley in America.

Priestley in America, 1794-1804. By Prof. Edgar F. Smith. Pp. v+173. (Philadelphia: P. Blakiston's Son and Co., 1920.) 1.50 dollars net.

PROF. EDGAR SMITH, of the University of Pennsylvania, in studying the lives of early American chemists, naturally encountered the name of Priestley, who, as is well known, left this country for America in 1794. The odium and insult he had met with as a Dissenter culminated in the Birmingham Riots of 1791, when, to the cry of "Church and King," his house was wrecked and set on fire "with the most savage and determined fury," and the books and apparatus which it had been the business of his life to collect and use were utterly destroyed. What Pitt termed "the effervescence of the public mind" was kept alive by the implacable resentment of the great body of the clergy of the Established Church, aided by the speeches in Parliament