Crop Improvement in Japan

S. C. Salmon

There are few countries in the world in which crop yields per acre are so high as in Japan, or in which they have increased more within recent historical times. Moreover, there are few in which research has played a more important role in promoting greater production. A consideration of some of the means by which larger yields have been achieved may be of interest to American readers.

As in most countries, increases in yields in Japan have been brought about by a number of factors, including especially improved cultural methods, the extensive use of commercial fertilizers, better control of insect and plant pests, and better varieties. The term "crop improvement" is, therefore, used in this paper in a broad sense to include any and all means by which improvement has been affected.

Some Features of Japanese Agriculture

An understanding of why yields are relatively high and of how improvements have been brought about depends to a considerable extent on a knowledge of Japanese agriculture. The four main islands—Kyushu, Shikoku, Honshu, and Hokkaido—which constitute nearly all of postwar Japan are mostly mountainous. Only about 16% of the land area, or about 15,000,000 acres, is cultivated. This is about equal to the area seeded to wheat in Kansas in a favorable year. The cultivated land is divided among about 5,700,000 farms, averaging 2.5 acres each. About one-third of the land is double- or multiple-cropped, so that nearly 20,000,000 acres of crops...