WAR TIME demands for high food production and postwar planning have both increased the need for more detailed information on plant food consumption than has been obtainable in the past. Such information is often of greatest value immediately after the close of the period covered.

Figures on the consumption of nitrogen, phosphoric acid, and potash have been published annually in recent years for California, Indiana, Minnesota, Missouri, Ohio, and Wisconsin by state authorities, and for all states for 1941 by this office. Similar figures for all states have been published also for the fiscal years ended June 30, 1934, 1939, and 1943. No series of plant food consumption data for an extended period of years, however, has hitherto been available on a comparable basis, either for the United States or for most of the individual states. Although the number of tons of fertilizers distributed by Government agencies has been published and the total P2O5 disposed of in this way from 1935 to 1943 in each state was given in the August 1944 issue of the Fertilizer Review, the figures on the nitrogen and potash contents and those for P2O5 for individual years are not easily found.

The purpose of this paper is to give data regarding the consumption of the three principal plant nutrients by states for a series of years in order to show trends in usage and the effects of the war. The data for 1944 are preliminary and subject to revision in later publications.

HOW THE AMOUNTS WERE DETERMINED

The national figures, to be given later, are the sums of state figures for 1934 and later years. For earlier years they are largely estimates. State figures for 1934 to 1939, inclusive, were calculated from previously published data. Only the average figures for the 5-year period 1935–39 will be given here for individual states. Data for 1941

1 Contribution from the Division of Soil and Fertilizer Investigations, U. S. Dept. of Agriculture, Agricultural Research Administration, Bureau of Plant Industry, Soils and Agricultural Engineering, Beltsville, Md. Received for publication June 1, 1945.

2 Chemist and Assistant Statistical Clerks, respectively. The authors are indebted to W. F. Watkins and T. L. Jefferies, former and present Chief, respectively, Fertilizer Requirements Section, Office of Materials and Facilities, War Food Administration, for sending out the questionnaires upon which a part of this study is based.

3 The term plant food will be used to mean nitrogen, phosphoric acid (P2O5), and potash (K2O) as is customary in agriculture and industry rather than in the strictly scientific sense of the term.

4 Figures in parenthesis refer to "Literature Cited", p. 608.