Plant Analysis As A Guide In The Fertilization Of Sugar Beets For Improved Production

Albert Ulrich

The need for better methods of determining the fertilizer requirements of sugar beets is greatest whenever a fertilizer program is proposed for a field of beets. Soil analyses conducted either through chemical or biological means are helpful in estimating the concentrations of nutrients in the soil that are available to plants, but they do not indicate what the crop is actually getting from the soil under the prevailing climatic conditions.

Value of Plant Analysis

In contrast to soil analysis, an analysis of the plants collected from the field will indicate what the plants are getting from the soil in relation to its environment. When the analytical values from the plant samples are compared with the critical levels for each nutrient, conclusions may be drawn with respect to the adequacy or inadequacy of the nutrients at the time of taking the sample.

From the analyses of plant samples properly collected the relative importance of nutrients to the adequacy or inadequacy of the nutrients at the time of taking the sample was in asparagus; in Plant Analysis As A Guide In

BARTLETT PEARS

Bartlett is the most important variety of pear grown in California, where nearly all of the United States commercial Bartlett crop is produced. Bartlett pears are worth $23.4 million per acre in California, $20 per acre in Oregon and $11 per acre in Oregon. It is not likely that there will be much increase in the market function of this fruit. Conditions are such that the market for Bartlett pears is already just about fully loaded with the production level continuing to increase in China, where much of the fruit is grown while maintaining current acreage and good wartime cultural care, and it is said that China is not likely to increase production.

Rocks and Roots

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Sugar beets in a test field near King City, the larger, flatter plants are on the northern part of the field, treated with 170 pounds of nitrogen per acre, applied as ammonium nitrate

The chemical analyses of leaf samples indicate that the beets were well supplied with nitrogen through the growing season and the concentrations of nitrogen in the upper portion of the plant continued to increase up to the time of harvest. On September 11, 1948, the field was harvested and produced 22,000 tons of beets per acre with an average sugar concentration of 15.3 per cent.

The use of phosphorus in addition to nitrogen now should be considered for this field, particularly when it is planted to sugar beets. Potassium was apparently adequate, as shown by the potassium analyses for the two years.

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Pears: Economic Status, California Agricultural Experiment Station, W. C. R. 365, April 1943. It is now available at the College of Agriculture.

AVOCADOS

California is fortunate in having had a series of water experiments with avocado plants which have a keen interest in hor-

Although the avocado industry is still in the experimental stage, there is every reason to believe that it is moving along to a commercial stage, where the profits will not differ materially from those of other California specialty subtrips.

The culture of the avocado is described in the revised edition of the following publication, which is both informative and an excellent guide to the grower, harvest, market and the fruit and a survey of the soil and climatic requirements as to the successful establishment and operation of the avocado industry.

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