

Seed costs per acre for 1921 and 1923 were determined by adjusting the 1922 seed costs per acre by the percentage of change in price of seed for each of these years, as compared with the price of seed in 1922. In Ohio the price per pound paid by farmers for seed in 1922 was 15 cents, while in 1921 it was 25 cents. The 1921 seed cost per acre was therefore 1.66 times the 1922 cost. Prices per pound of seed were obtained from the farmers in the area investigated and were checked against the factory-grower contracts.

Commercial fertilizer costs for 1921 and 1923 were obtained by adjusting the 1922 fertilizer costs per acre by the percentage of variation in the market prices of fertilizer in those years. In Ohio the prices<sup>5</sup> of fertilizer in 1921 and 1923 were, respectively, 15.7 per cent and 31 per cent higher than in 1922. Consequently the factors used in multiplying to obtain the 1921 and 1923 costs were 1.157 and 1.31, respectively.

In like manner land charges for 1921 and 1923 were determined by applying to the 1922 land charges a factor of change based upon the percentage change in the "value of good plow lands," as shown in the 1922 Yearbook of the Department of Agriculture. For example, the value of good plow lands in Ohio was reported to be 10 per cent greater in 1921 than in 1922. Consequently, to obtain the land charges for 1921, the 1922 land charges as obtained in the field investigation were increased 10 per cent. The values were reported the same in 1923 as in 1922, therefore the land charges were considered the same.

*Yields for the three years.*—The yields per acre for 1921, 1922, and 1923, were obtained from the farmers themselves and were checked against the factory records except in Michigan and Ohio, where the 1923 crop had not been harvested when the investigators were in the field. For these two States the 1923 yields were determined from data furnished by the United States Department of Agriculture. The 1922 yields for the farms investigated were increased or decreased for 1923 in proportion as the yields for that year in the respective States deviated from the 1922 yields. If the average yield for all farms was 10 per cent lower in 1923 than in 1922, the average 1923 yields for the farms investigated were determined by reducing the 1922 yields for these farms by 10 per cent.

*Method of weighting.*—The annual average costs for each State for 1921 and 1923 were arrived at by weighting on the basis of the 1922 production, the three-year average by weighting the commission's data for each year by the total production of the State as reported by the Yearbooks of the United States Department of Agriculture. The averages for the United States were obtained by weighting the State costs by the total production of the State in each of the three years, respectively, as shown in the Yearbooks of the Department of Agriculture, and are combinations of data for the nine States only.

*Additional data.*—In addition to the data on the costs of production and returns to the growers, the commission obtained, for the area investigated, much supplemental information on the economic status of the sugar-beet industry—its present limitations, the possible in-

<sup>5</sup> The prices of fertilizer were furnished by the soil improvement committee of the National Fertilizer Association.