LABOR REQUIREMENTS CUT IN HALF IN BEET SUGAR MANUFACTURE

The amount of labor required to process a 100-pound bag of beet sugar has been cut in half in the last 20 years. During the period from 1890 to 1913 the increase in production was great enough to require increased employment in spite of rising output per worker. After 1920 the productivity increases were accompanied by a sufficiently rising volume of production to maintain employment approximately level. For the future, it is estimated that production in 1940 may be 20 percent higher than it was in 1935 with probably a decrease in the number of men employed. These are the principal findings of a report prepared by the National Research Project of the Works Progress Administration in cooperation with the National Bureau of Economic Research and released today by Administrator Harry L. Hopkins.

Productivity has increased despite the fact that no major changes in production methods have taken place since the World War, Corrington Gill, Assistant WPA Administrator in charge of all WPA research, pointed out in transmitting the report to Mr. Hopkins.

Attributing the increased productivity "almost entirely to minor improvements throughout the plants which accelerated the
production process and increased the yield of sugar from the beets," the report adds: "The increased application of electricity made possible the introduction of a variety of instruments and other devices which facilitated more precise control of chemical processes and the mechanization of handling operations. Advances in the knowledge of chemistry have brought minor though cumulatively important refinements in processing. Machine designs have been improved and operations made mechanically more efficient."

Mr. Gill stressed the seasonal nature of the beet sugar industry, saying:

"It is estimated that more than 260,000 persons find some employment in the growing of sugar beets and the manufacture of beet sugar. The industry is necessarily a seasonal one, however, and the great majority of these people work in the industry for less than 100 days during the year. The factories employ 20,000 to 30,000 workers during the 2- or 3-month 'campaign' period of sugar making which follows the harvest, but employ only 3,000 or 4,000 workers during the inter-campaign period. In 1933 there were approximately 70,000 sugar beet growers and 160,000 workers in the beet fields.

"Even if the daily earnings were high - and in the beet fields they certainly are not - the small number of days per year that most of the industry's labor force is employed would mean low annual earnings and dependence on some other source for a part of the annual income. It is estimated that the average earnings of factory workers during the campaign are about $225. The earnings of families who do the hand work on the beet crop on a contract basis have been found to be only a few
hundred dollars, or considerably less than is required for support throughout the year.

"Opportunities for other employment in the beet-growing regions, either in agriculture or in other industries, are usually very limited, and sugar-beet workers have therefore frequently had to resort to public belief with the result that in important beet-sugar producing regions these workers have represented a high proportion of the public relief burden."

Calling attention to an earlier research report which showed a marked reduction in labor requirements in the raising of sugar beets, as a result of the introduction of tractors, trucks and better equipment for field work, Mr. Gill cites a continuation of this trend in the agricultural end of the industry. "Recent development of economical blocking and harvesting machinery," he notes, "foreshadows reduced employment for many of the hand workers who have done 50 to 80 percent of the labor on the crop."

The report is entitled "Productivity and Employment in Selected Industries: Beet Sugar" and is published as a booklet of 190 pages with many charts and statistical tables. It was prepared by Raymond K. Adamson and Miriam E. West under the supervision of the late Harry Jerome and William A. Neiswanger as one of the reports of the WPA National Research Project on Re-employment Opportunities and Recent Changes in Industrial Techniques, directed by David Weintraub and Irving Kaplan.