Sugar Beets
And Mechanized Handling

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TODAY practical, both economically and from the standpoint of saving labor, mechanization of sugar beet growing must reduce two other at harvest.

peak labor loads, one at thinning time and the other at harvest time. The thinning problem can be attacked more satisfactorily if better seed distribution and resultant better spacing of seedlings can be accomplished. To meet the demand for better seed distribution the "single seed ball" planter has been developed. This planter is designed to plant several seeds at a time rather than bunches of seedballs as the old planters did. The result is a much better spacing of plants in the row. Another development is the use of small or cracked seed balls with the single seed ball planting cracker. Cracking the seed ball makes it possible to reduce the number of beet gernas to about 107 per 100 seed balls. This division of the seed ball along with better distribution reduces the amount of seed normally used from 20 pounds per acre down to 7 pounds or less.

Mechanical Thinning

Various types of machines are used for thinning, but there seems to be no particular advantage in buying special equipment. The ordinary beet cultivator, equipped with flat drum feet or a similar arrangement of knives and used to cross the rows, does a satisfactory job. In general it has been found best to use a comparatively small knife and leave a rather narrow block. A 2-inch knife and 2-inch block has been shown to give better spacing than earlier arrangements of wider knives and blocks. A good arrangement of knives is shown in the picture at the bottom of the page.

Mechanical thinning done in northern Colorado in 1941 on a commercial basis showed that the man-hours required for thinning could be reduced from 1 to 2½ that normally used.

Mechanical thinning has not been widely used by farmers to date for two reasons. In the first place, even though excellent yields can be obtained with mechanical thinning, the field of young beets appears to be body more up by the operation; thus many farmers lose their nerve before they complete the thinning. The second reason is that many farmers who have tried mechanical thinning have not been severe enough in the blocking operation or have not used a long-handled hoe after the mechanical blocking to reduce the beet population to from 100 to 120 beets per 100 feet of row.

Count the Plants

Unless actual counts are made the tendency is to leave too many beets. It should be unnecessary for stook labor to be used if the blocking is done properly, according to information which can be supplied by the fieldmen.

In some cases where the mechanical thinning plan has been followed, it has actually shown an increase in yield over the hand thinning method. In other cases there have been losses running around 10 percent, depending upon the kind of soil, the stand and distribution at thinning time, and the timeliness of the operation. The saving in time which mechanical thinning permits enables the grower to get the thinning job done at the proper time. Prompt thinning prevents overcrowding in the row and enables the farmer to keep ahead of the weeds.

Mechanical Harvesting

To be successful, a mechanical harvester must do as good a job of topping as hand labor, it must place the tops in a position where they can easily be saved for stock feed, it must at least place the beets in piles or windrows from which they can be scooped by hand or loaded with a mechanical loader, and it must be economical in operation.

There are some harvesters still in the experimental stage which do an excellent job of topping, in some cases better than hand labor. The problems of separating the beets from the soil and of caring for the crops are more serious than satisfactory topping. The most difficult of these problems is that of getting the beets out of the ground and separated from the clods.

Some machines lift the beets and soil on a conveyor with men to separate beets from clods. Under some conditions there are several times as many clods as there are beets on the conveyor. A few experimental machines have shown promise of meeting all the requirements of a successful mechanical harvester. With one machine on which data were recorded, two men could harvest 4 acres per day, a job ordinarily requiring 8 men.

Tax Moratorium Ends

The current moratorium on delinquent taxes will expire May 31, 1942. After that date, real estate owners charged with delinquencies must pay a penalty of 5 percent plus interest at the rate of 2 percent a year from the date of delinquency.

The state board of equalization this week has forwarded memorandums to all county officials pointing out the technical procedure to be followed under the moratorium and other recent tax statutes. Any property owner with delinquent taxes may be fully advised on his rights by consultation with his county officials. There are several methods by which property may be redeemed, including five-year contracts for the payment of back taxes.