

# Spring Mechanization in the Red River Valley—1953

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Cross cultivation, leaving a 4- or 5-inch block, has been a common practice in the Red River Valley for the past 17 or 18 years and, as a result, we have increased the average acreage handled by each worker from 7 to an average of 12.88 acres per worker in 1953 when 6,683 workers thinned and hoed 86,109 acres. The crop rotation practiced in the Valley has also been an important step toward complete mechanization of our thinning and hoeing operations.

By summer fallowing and keeping the land black the year previous to a beet crop, the growers have taken care of their weed problem. When coming back to this same piece of ground the third or fourth time in the customary three- or four-year rotation plan, there just are not enough weeds in the field to make hoeing a problem.

From experience gained on our company farm at East Grand Forks during the past seven years, we have proven to ourselves and to many of our growers that, when a field comes to good stand and an even stand, it is a simple task to completely mechanize the thinning operation by cross-cultivating, leaving an inch and a half block. Despite unfavorable weather conditions over parts of the Valley last year we did have 5,451 acres non-thinned by cross cultivation and 361 acres with down-the-row thinners. Time studies were kept on 3,363 of the 5,812 acres and we found that it took an average of 7.76 man hours per acre to hoe these fields for an average cost of \$8.42 per acre. At the same time, the workers were well satisfied with their earnings, which averaged \$1,085 per hour.

It was not until this past year that we had any experience with a down-the-row thinner. Although this experience is limited, we now feel that there may be a place for this machine in our mechanization program; especially in a field where there is not adequate stand to cross with a small block and still leave the necessary plant population per acre.

We know that the only factor which will keep us from getting all of our fields mechanically thinned within the next year or two is the fact that we do not have a drill that will give us the necessary positive seed distributions. The drill manufacturers have known our problem for several years now so we can only hope that in the very near future they will make a drill that will meet our needs.

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