

CROSS BLOCKING RESULTS IN OHIO

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In the effort to eliminate as much as possible the spring hand labor connected with growing sugar beets, the need for mechanization in two phases has long stood out -- a drill which will sow seeds evenly spaced and a mechanical cross-blocker.

It may seem like working from the back to the front, but in my opinion we now have a cross-blocker that has solved one of the two problems.

I, personally, and with the help of others started experimenting with mechanical cross-blockers in 1942. That year the Fremont area of the Great Lakes Sugar Company planted one of its largest acreages in history. That was fine except that, due to an early and dry Spring, the last of the acreage was planted before the first came up. Then came a heavy rain with the result that practically all of the acreage came up at once.

Since the supply of hand labor had been scheduled on the basis of successive planting, this posed a serious problem. Not enough labor was available to block and thin the crop as promptly as it should have been thinned. Fields became weedy. Beets grew so tall and thick that field workers could make no headway.

If there was any answer to this problem it was machinery.

Several years previous to this some experimenting with cross blocking beets had been done in the Fremont area. Now it was renewed with redoubled efforts.

In our earlier experiments we had encountered one chief difficulty; the right setting of the tools on the cross-bar.

Faced with a serious problem in 1942, we renewed our experiments and turned to a hydraulic-lift principle and this proved to be a partial solution. With the hydraulic-lift the cross-blocker "floated" following the contour of the soil. That left only the proper setting of the tools to be solved and this was indeed a problem.

After days of field trials and constant adjustments, it was found that by mounting 16 discs in a double tool bar, eight to a bar, so staggered on the bars to give from three to four inch blocks, along with 9 eight-inch knife weeders attached to the back of the rear tool bar, our problem was licked --At least in theory.

After equipping two tractors, both of popular make, with the cross-blocker, another unexpected problem was encountered. We wanted to experiment in the beet fields, but many of the growers eyed the machine with distrust. They were sure that such a revolutionary method of cross blocking would be sure to ruin their crop.

But we finally convinced one of our growers to let us go ahead in his field. Ten acres were cross-blocked and when harvested yielded 198 tons, an average of over 19 tons to the acre. And while we were cross blocking this field, the owner was so sure we were ruining his stand that he would not come near us.

There were many more such instances in the area, but I will mention but two more. On another farm five acres were cross-blocked and yielded an average of 19.22 tons while on a third we worked six acres and got a return of 18.78 tons average.

All of this had naturally taken time and many beet fields appeared to be total losses due to weeds and the rankness of beets, many of which were more than a foot high. One such field of 11.33 acres appeared to be a total loss as hand labor was out of the question. We cross-blocked this field the first week in July and got a yield of 9.82 tons to the acre.

Only 200 acres were cross-blocked in 1942, but it was a start. It proved that we had licked the problems and taken the bugs from mechanical cross-blocking. In 1943, 1944 and 1945 it jumped to 500 acres with the same results we had experienced in our initial try -- fields full of weeds and tall beets, which defied hand labor, could easily be mechanically cross-blocked.

Last year we cross-blocked 1200 acres and there was hardly a grower who did not express great interest in the mechanical blocker. Growers who had used it were convinced that it increased yields and cut down costs. They also view it as insurance against a year when hand labor may be at a premium.

One other big advantage in using the cross-blocker is that a field can be cross-blocked and then allowed to stand as long as 10 days before thinning. The beets in these fields will stop growing spindly and will begin to widen out and become much sturdier by the time they are thinned.

These blockers can be mounted on almost any farm tractor equipped with power lift. The span of the tool set-up is 110 inches, covering 16 feet of ground on each round.

With this machine the cross-blocking can be done when beets are from one inch to a foot tall and this method of cultivation will destroy approximately 80 per cent of the weeds and beets not required for a healthy and sturdy stand.

While we have had remarkable results with our cross-blocker as it stands today, we expect to make further improvements in 1947 so that the thinning season for beet growers will be further extended and the need for hand labor further reduced.

Last year seven of these cross-blockers were in operation in the Fremont area and I am confident that this number will be increased this year. A section of this cross-blocker, showing the setting of the discs and knives, is now on display.