

# Experiences During 1947 with the Scott-Urschel Beet Harvester

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DURING THE FALL of 1946, 130 mechanical sugar beet harvesters operated in the area represented by the Farmers & Manufacturers Beet Sugar Association. Table 1 is a breakdown of these harvesters.

Table 1.

Harvester make	Number	Total acres	Acres per machine
Scott-Urschel	120	8,077.9	67.3
International	6	220.5	36.75
John Deere	3	85.0	28.3
Marbeet, Jr.	1	72.0	72.0

Table 2 gives a breakdown of beet harvester operations in this same area for 1947.

Table 2.

Harvester make	Number	Total acres	Acres per machine
Scott-Urschel	256	14,882.6	58.13
International	36	1,722.7	47.85
Others	6	132.7	22.1

Table 3 gives a breakdown of Scott-Urschel harvester operations in 1947 by year model.

Table 3.

Model	Year	Number	Total acres	Average
Regular chain	1945	10	430.8	43.08
Regular chain	1946	102	5,495.0	53.9
Regular chain	1947	124	7,776.8	62.7
Regular V-belt	1947	10	744.1	74.41
Stub bar—V-belt	1947	5	435.9	87.2
Not operated		5		

Data from four factory areas give the following information.

Table 4.

	Number of machines	Total acres	Average
Scott-Urschels loading direct into trucks or wagons	59	3,557.1	60.0
Scott-Urschels equipped with side-dump carts	25	1,849.1	74.0

Table 5 gives the cost of repair parts for 193 Scott-Urschel machines for the 1947 season. These figures do not include welding costs or costs of

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parts bought by the farmers from outside sources, such as bolts, chain, etc.; also these figures do not take into consideration the inventory of parts which the farmers might have on hand.

Table 5.

Name of harvester	Number of machines	Number of acres	Parts cost	Acres per machine	Parts cost per acre
Scott-Urschel	193	11,135.8	\$15,533.93	57.7	\$1.39

The beet sugar companies of the Eastern area are ordering all Stub-Bar Scott-Urschel Sugar Beet Combines for 1948.

The advantages of the Stub-Bar over the regular Scott-Urschel are:

1. Simplified lighter machine with fewer moving parts.
2. Lower maintenance cost.
3. Lower operational cost.

The following changes are being made on the 1948 regular Scott-Urschel Harvester:

1. Elimination of the wood sidings on the inside of the beet elevator.
2. Increased size and capacity in the lower beet conveyor to eliminate plugging with beets and mud.
3. Bolt tighteners for wire leaf-top conveyor belt.
4. Three rods on leaf pick-up points to give better leaf gathering.
5. Improved and strengthened tractor hitch and bar.
6. Clod guard for leaf pick-up chain or belt.
7. Slip clutch on drive shaft for topping discs.
8. Improved kicker and hopper arrangement in bottom of beet elevator.
9. Elimination of elevator chain slide shoe.
10. Elimination of reverse flanged idler wheel on top of beet elevator.

The following accessories will be available for the regular Scott-Urschel Harvester:

1. Beet Windrower—\$125.00.
2. Top Windrower—\$125.00.
3. Coulters and brackets for mounting same in front of leaf pick-up points for use in weedy fields and fields with heavy top growth.

Table 6 gives information furnished by the American Crystal Sugar Company.

Table 6.—American Crystal Sugar Company, Chaska Factory, Scott-Urschel sugar beet combine performance in 1947.

Acres har-vested	Total tons	Labor cost	Parts cost	Welding cost	Gas and oil	Total operating cost	Cost per acre	Cost per ton	Labor per hour	Tons per acre
49	302	\$201.60	\$34.00	\$1.00	\$34.16	\$270.76	\$5.53	\$.90	\$.80	6.37
106	999	360.00	68.00	5.00	71.50	504.50	4.76	.51	.80	9.42
57	536	330.40	34.00	5.00	34.00	403.40	7.07	.75	.80	9.40
91	878	336.00	68.00	2.00	41.20	447.20	4.90	.51	.80	9.60
18865	674	274.55	172.87	---	75.24	522.07	5.90	---	---	7.6
7833	677.8	---	75.37	3.25	51.22	429.59	5.63	---	---	---

<sup>1</sup>Mason City Factory.

<sup>2</sup>Average.

Table 7 gives information furnished by the Great Western Sugar Company for the Scott-Urschel Combines which operated in their territory.

Table 7.

No. of machines	Total acres harvested	Total tons	Custom acres harvested	Custom tons	Total days harvesting	Acres harvested per day
41	2,117	39,606	205	3,454	1,020	2.13 <sup>1</sup>

<sup>1</sup>Average.

Tables 8 and 9 give information furnished by the Utah-Idaho Sugar Company for the Scott-Urschel Combines which operated in their Belle Fourche territory.

Table 8.

Number of Machines	Tons harvested		Acres harvested	
	Total	Average per machine	Total	Average per machine
17	368.97	21.7	3,474.54	204.38

Table 9.

Tractor used	Total acres harvested	Total tons harvested	Total hours due to delay machine breakdown	Total days of operation	Total cost of operation	Acres harvested per day	Cost per acre	Tons harvested per day	Cost per ton
Case CC	27.70	316	16	14	219.20	2.31	7.90	26.33	.69
D-2	54.39	530	16	22	434.00	2.47	7.98	24.09	.82
Case S-C	36.37	443.60	5	16	299.10	2.273	8.223	27.725	.6742
Oliver 70	34.00	461.84	15	22	366.90	1.545	10.79	20.992	.794