ONE-OF-A-KIND EAR CORN PICKER

Tractor-Mounted Picker Harvests 12 Tons Per Hour

"There's a big market for ear corn in our part of the country," says Truman Lively who built a one-of-a-kind 4-row corn picker that mounts on his International 856 tractor. "I use the same tractor for planting, cultivating and spraying."

He started with a used 438 conventional corn head off an old Allis-Chalmers combine. He used the picking units from the header and stripped them down to the frame.

He used a 12-ft. long, 4 by 6-in. toolbar under the middle of the tractor, bolting it in place with angle iron. He mounted two picking units on either side of the tractor, mounting them on the 12-ft. toolbar so that they can pivot up and down. He can adjust picking height from 4 to 36 in. off the ground. A 4 by 8-in. cylinder mounts under each pair of picking units to tilt them up and down.

Two 6-ft. long by 9-in. wide elevators that Lively built are fitted with slats off the old combine.

Two 30-in. long, 9-in. dia. augers, built out of pipe and commercial flighting, carry ears to a 13-ft. long, 12-in. wide cross conveyor. It carries corn from the elevators to the picker's 16-ft. long, 18-in. wide discharge elevator. Two fans off an old International 422 cotton picker mount above the cross conveyor to blow trash off it.

One of the biggest challenges in the project was figuring out the power train, Lively says.

"I came off the rear of the tractor at the pto and ran a #80 double roller chain down about 12 in.," he says. "I mounted a driveshaft where the drawbar originally fit on the tractor and ran it to the front of the tractor where I mounted a gearbox, which came off a Deere cotton picker, on the main crossmember. I came out of each side of the gearbox and ran a shaft to the sprocket on each row unit."

Another challenge was figuring out the correct size sprockets that would allow him to run the picking units off the tractor's 540 rpm pto shaft and the cross conveyor, fans and rear elevator off the 1,000 rpm pto shaft.

Lively says he used plywood shields on the sides of the tractor to keep corn in the elevators. He also replaced the tractor's wide front axle with a fork axle and single tire off a mobile home. The tire runs between his 38 in. rows.

"I can pick 10 to 12 tons of corn an hour at 2 to 3 mph," Lively says. "I've found that 14 to 16 ft. long wagons with 3 ft. sides are ideal to pull behind the picker. Anything bigger would be too heavy to pull loaded."

Lively takes the picker off the tractor in five sections - the main cross beam with picking units, the two outside elevators, rear elevator, and cross conveyor. It takes about an hour and a half to remove it and about three hours to put it back on.

Out-of-pocket expense was $750, including the old corn head.

Lively mounted the 4-row corn picker on his IH 856 tractor, using the picking units off an old Allis-Chalmers combine.

A pair of 6-ft. long home-built elevators deliver corn into cross augers (above), which deliver corn into 16-ft. long, 18-in. wide discharge elevator.

For more information, contact: FARM SHOW Followup, Truman Lively, 279 Truman Lively Rd., Winnsboro, La. 71295 (ph 318 435-7838).

Gebhart converted a 20-ft. wide Deere rotary hoe into a "double toolbar" folding hoe that has twice as much soil mixing action as a conventional rotary hoe.

Hoe's 5-ft. wings fold up vertically for transport. A pair of depth gauge wheels controls depth of front hoe wheels. Depth of rear gangs is controlled by top link on 3-pt. hitch.

"Double Toolbar" Rotary Hoe Controls Weeds In And Between The Row

Paul Gebhart, Edinburg, Ill., converted his 20-ft. wide Deere rotary hoe into a "double toolbar" folding hoe that he uses to control weeds in and between his 30-in. spaced corn and soybeans.

"It has twice as much soil mixing action as a conventional rotary hoe, allowing me to eliminate weeds within the row as well as between rows without using herbicides," says Gebhart.

Gebhart farms organically, using no chemicals or commercial fertilizer. Once the crop is too tall for rotary hoeing he uses a cultivator to control weeds between rows.

He first converted his single toolbar rotary hoe to a folding model with a 10-ft. center section and 5-ft. wings. He then paid $110 for a used 15-ft. Deere rotary hoe and cut the toolbar into three sections - a 4-row center section and two 2-row sections. He mounted them 4 ft. behind the front toolbar. He left the hoe wheels on the front toolbar in their original position. The hoe wheels on back mount in groups of four spaced 30 in. apart, with the wheels in each group spaced 4 in. apart just like on front. The wheels on the back hoe are offset 2 in. to the left of the wheels on the front to more completely break up the soil.

A pair of depth gauge wheels mounts on the front toolbar to control depth of the front hoe wheels. Depth of the rear gangs is controlled by the top link on the 3-pt. hitch.

"It gives me the benefits of going over the field twice with just one pass," says Gebhart. "Rotary hoeing is a fast, cheap way to control weeds early in the season, so I often make several passes. My double toolbar rotary hoe cuts the number of trips I make in half. I use it within 72 hours after planting and again every third or fourth day until the crop is big enough to cultivate. I cultivate corn once and soybeans twice. I also use the hoe in soybeans to break the crust in the rows before beans come up.

"One advantage is that my double toolbar rotary hoe has only half as many wheels on back so there's about 50% more downpressure per wheel, not including the weight of the extra toolbar and cross beams. The extra weight really helps in hard soil conditions.

"The original hoe has a 5 by 7-in. toolbar but the toolbar on back is only 4-in. square. However, I was still able to use the original U-bolts that were left over. I used the main frame off an old cultivator to make the cross beams."

For more information, contact: FARM SHOW Followup, Paul Gebhart, 2147 N. 1400 E. Rd., Edinburg, Ill. 62531 (ph 217 325-3250).