Sweet Corn Picker Mounts On Conventional Combine

Michael Mulders, Essexville, Mich., had 25 acres of sweet corn and a combine sitting idle in a shed. That prompted him to come up with the idea of building a 2-row corn picker on the frame of an old soybean header that mounts on his Deere 4400 combine.

"It lets us pick sweet corn in half the time, with half the labor, and without spending big money on a commercial picker," says Mulders. His invention was one of the finalists in Farm Bureau's 2004 Farmer Idea Exchange contest.

Everything on the picker is home-built. He stripped the Deere 12-ft. soybean head down to the frame and then mounted the components on it.

The machine works by grabbing corn stalks with a set of belts and using a pair of knife cutters to cut the stalks about 1 ft. above the ground. The stalks, with the ears of corn still attached, proceed up a chute where two small rollers strip the ears off in a downward motion to snap them off the stalk. Once the ears are removed they move on a conveyor belt to a belt bottom, self-unloading bulk wagon. Power is provided by a hydraulic pump that runs off the combine's tank auger drive. The rig has a total of 13 hydraulic motors and an 85-gal. hydraulic reservoir.

"It lets us take advantage of a machine that would otherwise sit idle during the corn picking season," says Mulders. "It strips the ears off in a downward motion similar to hand picking, but with less damage. It took about 200 man hours to build. We spent about $14,000 to build it. A one-row, pull-type corn picker sells for about $30,000."

According to Mulders, the first year they used the machine it saved them about $3,000 in labor. That comes out to about $120 per acre or about 15 cents per dozen ears of corn. "We're trying to build enough customers for our sweet corn so that we can double our acres, and therefore save $6,000 per year," says Mulders. "Using a combine to power it eliminates the need for a tractor to operate a pull-type picker. Another advantage is that some of the workers we had been using to pick corn are now free to do other jobs. It takes less than 45 minutes to remove the picker from the combine and mount a conventional corn or soybean header on it," he notes.

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Home-made picker mounts in place of header on conventional combine. It uses belts to grab corn stalks and knives to cut them 1 ft. above ground. Rollers strip ears off and deposit them in a bulk wagon.

Key Klamps come in 46 different configurations. Most come in five different sizes that work with any type of 3/4 to 2-in. dia. schedule 40 pipe.

Maloney says clamps work great for making tarp-covered shelters, corrals, fruit stands, handrails, shelving units, playground equipment and even furniture.

New Clamps Make Pipe Easy To Build With

These new "key klamps" are like tinker toys for grownups, making it possible to use low-cost pipe to put up a wide variety of buildings and other structures.

Erica Maloney, general manager of Alvin Industrial in Mississauga, Ontario, says the clamps work great for making tarp-covered shelters, corrals, fruit stands, handrails, shelving units, playground equipment and lighting grids, to name just a few uses.

"I've even had people build beds and animal cages," Maloney says. "The furniture in our lobby is made from it, combined with solid oak. It's quick and easy to work with, and it's also very strong and sturdy."

Key Klamps work together with any type of 3/4 to 2-in. schedule 40 pipe, thanks to case-hardened cup point set screws that bury their way into the pipe when tightened to 20 ft. lbs.

The clamps are available in approximately 46 different shapes, most of which come in five different sizes.

The floor flanges have bolt holes for affixing to any hard surface. When putting up a building, they can be anchored to footings.

"We use a fluorocarbon finish on most of our clamps that has proven to be superior to galvanizing in a salt spray test. This also gives our clamps a smoother, cleaner finish compared to galvanizing," Maloney says. "Because our product doesn't corrode as quickly, structures built with them can be taken apart and moved easily."

Prices vary for different styles of clamps, but a standard 1-in. T-clamp is $5.55.

Contact: FARM SHOW Followup, Alvin Industrial Sales Ltd., 365 Watline Ave., Unit 1 Mississauga, Ontario, Canada L4Z 1P3 (ph 905 507-4933 or 800 267-2648; fax 905 507-8288; email: alvinind@ica.net; website: www.alvinindustrial.com).

Joe Leihgeber builds greenhouses on skids so he can move them wherever he wants.

Cattle panels form the frame of 8-ft. high greenhouses which have tables, a fan, electric heater and shutters.

Low-Cost Greenhouses Made From Cattle Panels

Joe Leihgeber uses wire cattle panels for many jobs around his Williamsburg, Ohio farmstead. His newest and best idea is using them to make low-cost mini-greenhouses.

So far, he's built two 8-ft. high greenhouses using cattle panels and barn siding. He covers the arched panels with a sheet of 6 mil 20 by 25-ft. plastic that can be easily replaced as needed.

The 3-ft. high walls are made from 2 by 4's and chip board, covered on the outside by used barn siding. He puts a new storm door in one end and installs a fan, electric heater and shutters, all operated by thermostatic control. There are tables down each side to hold plants.

"Lots of the greenhouses on the market are very costly and some don't hold up in storms," he says. "This method is cheaper and the buildings will last as long as your house."

Leihgeber builds the greenhouses on skids so he can easily move them. "I made them portable so if I decide I would like it in some other spot, no problem," he says.

It cost him about $1,000 for the materials to build a 12 by 14-ft. greenhouse and $850 to build a 8 by 14-ft. greenhouse.

He's willing to sell detailed plans if there's interest. "There's more to it than the photos show," he says.

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