



Peter Wilson converted an old Case IH 4-row cotton picker into a multi-section "air boom" sprayer for his vegetable and strawberry crops. The air system that previously moved cotton lint to the cargo basket now creates a high pressure fog that penetrates the canopy across a 48-ft. swath.

"Made It Myself" Sprayer Built From Cotton Picker

Peter Wilson, Chester, S.C., needed an "air boom" sprayer for his vegetable and strawberry crops, so he converted an old cotton picker. The air system that previously moved cotton lint to the basket now creates a high-pressure fog that penetrates the canopy across a 48-ft. swath.

"I had looked at a couple of air boom sprayers mounted on trailers, but they were expensive, would require a cab tractor to pull them, and lacked some features I wanted," says Wilson. "We raise cotton, so we know how powerful the fans are on pickers. With the help of my dad Jeff and my wife Caroline, we converted an old Case IH cotton picker to a multi-section air boom sprayer."

Wilson wanted a sprayer that could move quickly and safely from one pesticide to another. That meant multiple tanks and a good clean-out system that would flush out chemicals between crops.

"We used an 1844 Case IH 4-row picker with worn out headers," says Wilson. "The rest of the machine was in good shape, and the engine had low hours."

Removing the headers was easy. To remove the big lint basket, Wilson lifted it into the air. Then he built a wooden frame on 8-ft. posts under it.

"I set the basket back down on the frame, disconnected it from the picker and drove out from underneath it," says Wilson.

After stripping away much of the remaining body, he assembled back and side booms using square tubing. He purchased 35 specialty spray nozzles from a sprayer company and mounted 5 per section. Each of the 2 sections per boom and the rear-mounted boom can be shut off individually.

"I built them on the ground and lifted them into place," says Wilson. "They can be easily removed if needed."

The side booms attach to a center frame fabricated from rectangular tubing. It's mounted to the lint basket's front sliding track. Each side boom connects to the center frame with a pair of ball and receiver hitches.

"They are rated for 3,000 lbs., so they are plenty strong," says Wilson. "They made the booms easy to mount and easy to dismount if I need to do so."

The sliding track lets Wilson drop spray tips to as low as 18 in. off the ground for strawberries or as high as 7 ft. for staked tomatoes. He uses the picker's hydraulic

system for boom control and more. Hydraulic cylinders mounted between the booms and the frame let him fold the booms back for transport.

"The sliding track gives the top of the boom framework a maximum height of 13 to 14 ft.," says Wilson. "I bolted the booms and frames rather than weld them. If nuts and bolts come loose, you can tighten them, but if a weld breaks, you've got big trouble."

He mounted a high-pressure, hydraulic-powered spray pump powered by the hydraulic valve that previously supplied fluid to the cotton unloader motor. It has a maximum pressure of 300 psi to the picker/sprayer. However, it's the added air pressure that really delivers the fine spray.

"I connected the air flow from the large twin fans on the picker that moved the cotton to 5-in. flexible piping, which then reduces to 4-in. pvc drop tubes," says Wilson. "The spray nozzles are centered in the tubes. I can spray with just the conventional pump and nozzles, or I can add air pressure from the fans. When I turn on the fans, it breaks the spray up real fine and blasts it into the foliage."

Wilson reinforced the frame so he could mount three 200-gal. spray tanks where the basket had been. The multiple tanks let him mix up three solutions before going to the field. He retained the two 100-gal. tanks used on the picker for water and spindle cleaner. They now provide clean water for flushing tanks, booms and nozzles.

"I can move clean water to empty tanks or to the booms as needed," says Wilson. "I can also switch tanks on the go."

To control the various nozzle sections, tanks and returns, Wilson mounted a 10-toggle control panel in the cab. Pneumatic air cylinders fed by a 12-volt compressor open and close ball valves with the flip of a switch.

"The hydrostatic transmission on the 1844 makes it easy to find the right speed for spraying," says Wilson. "The cab is spacious, and the controls are easy to reach. With help from my family, the entire project took about 2 months to complete. Every time I got stuck, my dad seemed to have an idea that got us going again."

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He assembled back and side booms, then mounted 35 specialty spray nozzles on them. Boom sections can be shut off individually.



Dave Julian came up with a way to use recycled tillage disc blades as ice scrapers. Blades attach to loader arms.

Disc Blades Used To Scrape Ice, Manure

Dave Julian cut the cost of replacing bucket and blade edges worn away by scraping ice and frozen manure. He designed a framework that uses recycled tillage disc blades to do the scraping.

"Implement dealers usually have piles of worn disc blades that they have replaced on tillage implements," explains Julian. "I figured out a way to mount them on skid steers. When the discs wear out, they are easy and cheap to replace."

Julian notes that replacing the normal cutting edge on a skid steer bucket or blade can run \$300 to \$400. He sells his ice scraper for \$1,200. Used discs can usually be bought for scrap steel prices.

The laser-cut steel framework holds discs

in a slightly offset pattern. Julian uses 1/4-in. steel plate and 1/4-in thick, 2-in. square steel tubing in the framework. The structure is heavy enough for mounting scarifiers or even a V-plow.

"I built it super rigid so it could be a tool carrier," says Julian. "It can be easily modified to hang other tools. It would be easy to attach an auger or blade to it."

Julian says the ice scraper can find use year round. "I've used it in the summer to clear brush and trees up to 2 in. diameter," he says.

Check out the video of Julian's ice scraper at FARMSHOW.com.

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