

Made It Myself

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"Uni-Harvester" Crop Sprayer

"We've used it for four years with no major problems," says Eric Schmigdall, Danvers, Ill., about the 90-ft. wide, hydraulic-fold crop sprayer he and his father Carl built out of an old 1972 Model 702 Uni-Harvester.

"We wanted a crop sprayer that didn't cost much and could cover a lot of ground fast," says Eric. "We paid \$1,000 for the Uni-Harvester and spent about \$1,000 to build the boom. Our total cost was about \$3,000. We use it mostly for post-emergence application of herbicides. It works great."

The Schmigdalls removed the shelling unit and installed a 900-gal. aluminum spray tank in its place. They used 3 by 3 and 1 1/2 by 3-in. steel tubing to construct the boom which is built in seven sections that follow the ground contour independently. The boom is folded by the hydraulic system that was used to raise and lower the header. Nozzles are spaced 30 in. apart and mounted on a pipe running the length of the boom and 1 ft. under it. The pipe is fastened to the boom framework by a series of rods equipped with set screws. By loosening the set screws, the Schmigdalls can change the height and angle of the nozzles on each section.

The boom's center section fastens directly to the Uni-Harvester frame. The two sections on either side of it are supported by 14-in. car tires and the end sections are carried by motorcycle tires at the end of each section. A shear bolt allows the end sections to swing back if

they hit an obstruction. "The boom folds up hydraulically like a planter marker," says Eric. "To spray along fencelines we fold up one side of the boom and drive beside the fence. We mounted extra nozzles on both ends of the boom's middle section so we can double the rate of herbicide along field borders."

Foam marker nozzles are mounted at both ends of the boom. Air for the foam markers is provided by an air compressor removed from a semi truck. The air compressor and the cab's air conditioner are powered by the drive pulleys that powered the shelling unit. Old propane bottles serve as air tanks and a water softener tank is used as the foam mixing tank. Air hose quick couplers at the front and rear of the sprayer can be used to pump up tires or blow out plugged nozzles.

The air conditioned cab is equipped with a bank of electric toggle switches, each controlling a separate boom section, the left and right foam markers, lights, and air conditioner. A master switch can be used to shut off the entire boom at once. Field lights cover the boom and the spray tank for night-time use.

A 12-gal. tank behind the cab holds wash water to rinse hands and clean tools. Plumbing runs from this tank to the front of the engine radiator and exhaust manifold so water is always warm.

For more information, contact: FARM SHOW Followup, Eric Schmigdall, Route 1, Mackinaw, Ill. 61755 (ph 309 359-8016).



High Clearance Sprayer Built From Pickup And Combine

"It walks right through even the wettest fields and has enough clearance to spray in 4-ft. high corn," says Doug Wulf, Hancock, Minn., who used the engine, automatic transmission, chassis and axles from a 1974 Chevrolet 4-WD pickup, together with tractor tires and a cab from an old Gleaner combine to build a self-propelled 4-WD high clearance sprayer.

Wulf stripped the pickup down to the chassis, 350 cu. in. gas engine, and transmission and mounted the combine cab over the rear axle. He widened the axles and mounted 12.4 by 38 tractor tires on them, raising the chassis. He removed the final drives off a pair of old International F-20 tractors and mounted one on each axle, which raised the chassis another 1 ft. He converted the rear axle to a steering axle by welding one end of a steering

knuckle salvaged from an old military truck to the axle and bolting the other end to the final drive above it. He mounted a 500-gal. tank between the engine and cab and bolted a 60-ft. Blumhardt boom onto the chassis in front of the cab.

"It has a lot of capacity so I can cover ground in a hurry," says Wulf. "I can spray at 12 1/2 mph and cover up to 60 acres per hour. The combination of big tractor tires and raised chassis provides plenty of clearance. Having a final drive on each axle reduces the gear ratio and also reverses the direction of the drivetrain. I spent about \$7,500 to build it. A new comparable size commercial sprayer could easily cost up to \$50,000."

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Rebuilt Minneapolis Moline Tractor

"Your readers may be interested in what you can do with a good old tractor, some used iron, and a bit of work," says Ed Pieper, Akron, Colo., who has almost totally rebuilt his 1957 GB Minneapolis Moline tractor over the years.

"I bought it in 1963 and it was my main tractor for 10 years. In 1966 I installed a homemade cab on it, mounting it on the fenders behind the transmission. I had a problem with dust, so I pressurized the cab with filtered air and then fitted it with an air conditioner. In 1969, I repositioned the cab on top of the transmission, rubber-mounting it. I probably had the quietest cab around during that era.

"The last 10 years I didn't use the tractor much except for swathing. Because it's still in excellent shape, last August I started to modify it to make it more useful. First I dreamed up a way to convert the hand clutch to a foot clutch. The pedal travel is longer than normal but it works good and the throw-out bearing is completely released when engaged. I also

installed a foot pedal. Then I lengthened the wheelbase out 3 1/2 ft. to accommodate the loader since I couldn't attach the loader to the back axles (the cab was in the way). I also fitted the tractor with a hydraulic power steering system with its own pump from a used IHC combine.

"Last October I decided to mount a grader blade under the tractor for closing ditches and maintaining terraces. The blade is 12-ft. wide. I bought it used from the highway department. It works a lot better than towing the blade (previously I had mounted the blade on a 2-wheel transport). The biggest expense was 2 pieces of iron plate - one's 3 by 3-ft. and the other's 3 by 4-ft., both 3/4 in. thick - that I bought new to make a turntable. I angle the blade by hand.

"I didn't spend a lot of money on any of these modifications and now I have a tractor that's really useful."

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