



Schoolbuses can be made into great greenhouses because they can be got for nothing and converted for little money, keeping growing costs low, says Lenny Smith.

HEATED BY OUTSIDE WOODBURNING BOILER

Cheap Way To Build Your Own Greenhouse

When Lenny Smith, Lake Mills, Wis., quit farming and went into the greenhouse and "U-pick" vegetable business four years ago, he decided to keep costs down by putting up his own greenhouses. He built two of them out of old school buses.

"They cost almost nothing and are cost efficient to operate," says Smith, who uses his "greenhouse buses" to grow potted flowers and hanging baskets.

Smith got the buses - minus the engines - for nothing from a local bus company. He sold the power steering units and rear ends and then removed the seats and cut off the roof. He left three supports across the top where the roof was riveted onto the bus and then put a double layer of clear polyethylene over the top. A small electric fan is used to blow air into the space between the two layers. Wooden benches on each side of the bus are used to hold plants, and a pair of steel rods running lengthwise at the top of the bus are used for hanging baskets.

A Taylor outside woodburning boiler is used to heat the bus. A pump circulates hot water underground through a 3/4-in. dia. pipe that enters the bottom of the bus. It's connected to a 2-in. dia. plastic finned pipe that runs under each bench. A plastic pipe at the front of the bus connects the two pipes. After the water circulates it exits through another underground pipe and into the other bus, then is piped back into the boiler.

"These inexpensive greenhouses keep my growing costs to a bare minimum," says Smith. "Everything inside the bus was

made mostly out of scrap material that I already had. I burn discarded pallet wood in the outside furnace, and I built the benches out of old wooden crates with 1 by 6 boards that I got from a local company. The greenhouses stay warmer than our other greenhouses because of the glass windows. If it gets too hot inside the bus I can open the windows or the front or back door.

Each bus has about 200 sq. ft. to work in. We start growing plants in them around February 1st and use them until the end of June. We can get 75 flats and about 50 hanging baskets in each bus. I use a garden hose to water the plants.

The fan keeps the two layers of poly blown up so they stay nice and tight so the plastic won't be torn by the wind. To hook up the blower, I cut a hole in the plastic and used a screw lock ring to attach flexible tubing. When I cut off the roof I left some tin on each side of the supports and bent it down so that the sharp edges wouldn't tear the plastic. I mounted a series of nailed-together 2 by 6 boards lengthwise over the supports to keep the plastic from hanging down over the aisle between the benches.

The plastic is sandwiched between two boards that I fastened to the outside of the bus. I screwed one board on outside the bus, then inserted the plastic and nailed the other board on."

Contact: FARM SHOW Followup, Lenny Smith, N4716 Hwy. G, Lake Mills, Wis. 53551 (ph 414 674-2281).



There are two layers of poly on top of bus, which has room for 75 flats and 50 hanging baskets.



After a little work, 1975 schoolbus makes handy nurse tank for spraying.

BUSES ARE CHEAP AND AVAILABLE

Schoolbus "Nurse" Truck

If you haven't done it yet, you should seriously take a look at adapting schoolbuses for use in your farm operation, say Mark and Duane Dozier, Morrisonville, Ill.

"They're cheap and available," says Mark, who turned a 1975 Chevrolet 66-passenger bus into a handy nurse truck for spraying.

The bus had an automatic transmission and 427 cu. in. engine that were in good operating condition when purchased.

First we removed the back of the bus and rear door by drilling out the rivets. Then we removed the roof and sides, cutting them off with a cut-off saw just behind the second window. Then we reinstalled the back of the bus and rear door up behind the second window, screwing it in place and sealing up the joints.

We installed a 1,600-gal. stainless steel conical bottom tank, equipped with a sump, which we purchased from a fertilizer dealer at a liquidation sale. We beefed up the bus frame with gussets from under the remaining bus frame back to the rear axle.

Behind the tank we mounted a 7 by 9-ft.

flatbed truck frame on which we mounted bottom fill couplings, a 200-gal. clear water tank, a 15 gal. inductor, and a 5 hp. 2-in. pump. The system is set up so we bottom fill the 1,600 gal. tank via a 3-in. line which is teed and reduced to a 2-in. line hooked to the pump intake. The pump discharge is a 1 1/2 in. hose that quick-couples to all our sprayers for bottom fill convenience.

We use the clear water tank to fill the last 10 gal. or so of each load so when the couplings are unhooked, there is clear water at the break and in the discharge hose when it is not in use.

The cab of the bus is water tight and contains a seat and a small desk for keeping records. There's also storage space for products that must be kept dry.

We primarily haul mixed loads with our bus nurse truck but if the need arises, we have the inductor and can field mix."

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THEY CALL IT THE "HALLELUJAH HOTEL"

IH Schoolbus Camper

Lenny Smith, Lake Mills, Wis., converted a 1976 International 66-passenger school bus into a camper.

Smith got the bus free from a local bus company equipped with a 345 cu. in. engine and a 5-speed transmission. He left the two front seats in place on both sides of the bus, then mounted the second row of seats facing backward and installed a table. Behind the table on one side of the bus is a refrigerator. The other side has storage shelves and cupboards for silverware, towels, food, etc., as well as an electric outlet for using hot plates to cook food. A window air conditioner mounts ahead of the storage shelves. Behind the shelves and refrigerator are two bunk beds - made out of 2 by 4's and plywood - followed by a big bed at the back of the bus.

"We really like it and it cost very little to build," says Smith, who calls his camper the "Hallelujah Hotel". "We use it every year for about a week at a time when we go on vacation. It has a lot of room inside



Smith paid \$400 for the bus and \$400 to convert it.

and all the headroom we want. We store suitcases, toys, etc., under the bunk beds. It doesn't have a toilet, but we usually park it at campgrounds that have toilets anyway. We paid \$400 for the bus and spent another \$400 for a new clutch and other repairs. We painted the bus white and red and removed the flashing lights and stop sign to make it road legal."

Smith used 3-in. channel iron to build a spare tire carrier to mount on front of bus.

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Bus has plenty of seating and wood bunk beds for sleeping.