

Stewart Kunkel used carport parts to provide the roof and frame for this 12 by 42 -ft barn. Barn is shown here still under construction.


Completed barn has plywood sides and a homemade gutter system.

## Carports Turned Into Low Cost Barn

Stewart Kunkel used carport parts to roof and frame up a low-cost, 12 by 42 -ft. barn. With 2 by $6-\mathrm{in}$. stringers on the inside of the posts and a plywood exterior, he made a weathertight stable for his wife's horses, tack and feed. Best of all, he did it for only $\$ 3,000$.
"We want to build a proper barn in the future, but we don't have the budget for it right now," explains Kunkel. "I had one carport and found others with the same style on eBay. Some rafters are arched, and they wouldn't have worked."
The somewhat temporary barn has already withstood a $12-\mathrm{in}$. snowfall. When Kunkel designed it, he made it extra sturdy by adding extra rafters between the recommended rafters on $5-\mathrm{ft}$. spacings.
In order to accommodate 12 by $12-\mathrm{ft}$. horse stalls on either end, Kunkel rotated the carport tubing. Pipes that normally ran the
ength of $12-\mathrm{ft}$. long carports now became roof rafters. Former cross rafters now run the length of the building.
"I had to cut the rafters down a bit to get the desired $12-\mathrm{ft}$. width, but it also allowed me to use full plywood sheets for the exterior," says Kunkel.
Once he had the uprights and roof mounted on the concrete piers, he built a 12 by $18-\mathrm{ft}$. floating floor center section. It also sits on concrete piers and was built from a quarter mile of cedar fence.
Kunkel built interior cross walls with 2 by 4 construction screwed into the floor. Wall ends attach to the carport uprights, adding rigidity to the entire structure. He also installed a heated 6 by $6-\mathrm{ft}$. tack room in the center section, leaving the rest for storage.
To reinforce the remainder of the structure and provide a base for the exterior plywood
skin, Kunkel attached 2 by 6 -in. stringers at 2 -ft. intervals on the inside of the carport posts. On the long sides of the barn, he attached 2 by $2-\mathrm{in}$. spacers perpendicular to the stringers, for attaching the plywood. At the ends, he used 2 by 4's for additional rigidity.

To compensate for the eave line of the carport, he attached $1 / 2-\mathrm{in}$. CDX plywood between the metal roofing and the metal rafters where they first meet. Plywood was then attached over all of the sides.

In his wet, western Washington climate, Kunkel knew he needed to direct rain away from the building with gutters. When he priced them out, he found the brackets and stainless steel screws for a $10-\mathrm{ft}$. length of gutter cost twice as much as the gutter.
"I decided to mount the gutters using spacers made with $3 / 8-\mathrm{in}$. PEX cut with a
tubing cutter," says Kunkel. "I predrilled both the gutter and gutter board, inserted the spacer and used a HeadLok, heavy-duty fastener in a 6 -in. length."
Kunkel plans to board and batten the barn walls to make them look like a regular "stickbuilt" structure. With the carport structure and concrete pier mounting, it's classified as a temporary building, which didn't require permitting. That helped keep the cost down, too.
"I got the maximum square footage I needed and kept within my budget," says Kunkel.

Contact: FARM SHOW Followup, Stewart Kunkel, 15728 153rd Ave. S.E., Yelm, Wash. 98597 (ph 360 701-1177, kskunkel@ fairpoint.net).

## Trough Elevator Makes Great Grain Feeder

After his beef cattle destroyed a commercial feed trough, Linden Anson got the idea of using his old trough elevator. It had buckled in the middle, but was in decent shape. So, he removed the chain and turned it into a feeder. That was more than 10 years ago, and the Richville, N.Y., farmer's cattle still eat ground corn out of it.
"The elevators are 18 in . wide and easy to sweep out with a broom," Anson says. "Most are galvanized or stainless steel so they're easy to keep clean and don't rust. They are 100 percent more durable than what you can buy."

With more people putting up big round bales, the elevators are no longer needed to move small square bales. They can often be found in farmyards with other retired equipment or at sales, selling for $\$ 100$ or less.
Anson notes that all he did was remove the chain and place the elevator on the ground for his cattle. He bolted another elevator on 30in. legs to make a horse feeder. He's had no problem with corrosion - even when placing mineral blocks in them.
Contact: FARM SHOW Followup, Linden Anson, 290 C.R. 18, Richville, N.Y. 13681 (ph 315 528-6800).


Linden Anson removed the chain from an old $18-\mathrm{in}$. wide trough elevator and turned it into a handy feed trough for his beef cattle.

## One-Row Seeder Makes Garden Planting Easy

Seed, fertilize and mark the next row all in one pass with the Lambert All-In-One Garden Row Seeder. You just pick one of 6 seed plates that match 31 common seed sizes.
The Garden Seeder weighs only 14 lbs . empty. It has a $10-\mathrm{lb}$. capacity, front-mounted hopper for fertilizer. Settings offer 1,2 or 3 lb . rates for every 100 ft . Fertilizer is deposited evenly along the side of the row, eliminating hot spots or potential seedling burn.
The adjustable wheel shovel lets you set planting depth to match seed recommendations. The wheel drive ensures that no seeds drop unless the seeder is being pushed forward. Seed plates offer 3, $31 / 2,4$ and $9-\mathrm{in}$. seed spacings, depending on seed size and common recommendations.
While seeding and fertilizing one row, you can mark the next. Adjust the side arm row marker for the recommended row width. The row marker folds up and out of the way when
not in use.
Wheels are designed to create the optimal seedbed. Both wheels are concave and cleated. The front wheel crushes any dirt clods that could interfere with seed drop. The rear wheel molds dirt over the seed while cleating it to ensure good drainage.
The U.S.-built All-In-One is made to last with powder-coated steel. A storage case attached to the $36-\mathrm{in}$. high handle makes changing seed plates fast and easy. Prices range from $\$ 115$ to $\$ 159$, depending on the retailer.
Contact: FARM SHOW Followup, Compost Mania, 2650 Cedar Springs Rd. \#2226, Dallas, Texas 75201 (ph 214 509-6000; toll free 877 444-0450; www. compostmania.com); or NESEED, 3580 Main St., Hartford, Conn. 06120 (ph 800 825-5477; sales@neseed.com; www.neseed. com).


Lambert onerow seeder comes with a front-mounted hopper for applying fertilizer and an adjustable side arm row marker.

