An electric board on the wall above the propane storage hosts controllers for the rooftop solar panels, a 1,500-watt inverter and a 40-amp DC to DC charger.

Custom Camper Maximizes Space

Roy Bertalotto customized a pickup camper so he could go off-road or simply go on rougher back roads. Having traveled with a wide variety of pickup campers and trailers, he knew just what would fit his needs.

"I wanted a small, lightweight camper just right for one person," says Bertalotto. "I also wanted to keep the costs under $10,000."

When he ran across a 50-year-old Maine topper camper for $1,000, he grabbed it. The camper topped out at 9 ft., 6 in. high and 6 ft., 3 in. wide. It was 8 ft. long, but Bertalotto's 2021 Ram 2500's bed was only 6 1/2 ft. He filled in the difference with plywood walls covered with repurposed aluminum diamond plate.

While the exterior was in good shape, the interior was well-worn. He gutted it and converted it from sitting on bed rails to a slide-in-the-box style with an interior substructure.

All construction was 2 by 2-in. studs and 3/8-in. plywood. Bertalotto used only four sheets of plywood for the whole build and stapled low-cost carpet to the aisle sides and floor.

He started with center aisle walls about a foot from either wheel well. "I don't need much floor space as I'm only inside the camper when cooking, changing clothes and sleeping," explains Bertalotto. "Plus, the space between the aisle walls and the sides of the truck bed provides lots of storage."

On the driver's side of the aisle, he has an 8-ft. long, 24-in. wide counter with a twin-size bed on the other side. At the end of the center aisle sits a 30-gal. water tank with a 12-volt water pump.

An above-counter, dorm room-type mini fridge sits on top of the counter at the front of the camper. The other end of the counter extends over a storage area for a camper's toilet.

Placement of the sink and a small gray-water storage tank next to the toilet gives Bertalotto about 4 ft. of counter space for a coffee maker, toaster and butane stove.

A 5,000-Btu air conditioner extends through the rear wall above the counter, with a TV and accessories mounted above the A/C unit. The camper is also equipped with internet and hotspot connectivity.

Storage under the bed holds a portable infrared grill, a propane-fueled 2,000-watt generator, and an insulated box for three 100 Ah batteries for his rooftop solar array. In the space between the end of the bed and the rear door, Bertalotto boxed in a 20-lb. propane tank with a removable lid.

An electric board on the wall above the propane storage hosts controllers for the rooftop solar panels, a 1,500-watt inverter and a 40-amp DC-to-DC charger that takes power from the truck when it's being driven.

The rear wall holds a propane (zero clearance) heater, a clock, and temperature readouts for inside and outside the camper.

With storage always at a premium, Bertalotto added storage bins underneath the rear of the camper. He welded up a rack on an 18-in. receiver tube that slips into the truck's receiver hitch to support them. This makes it simple to remove them if he wants to tow a boat or another trailer.

Bertalotto modified a painter's stepladder to hinge beneath the door to get in and out. When not in use, it swings up and locks to the door with a gate latch.

"When it's down and the padlock is installed, someone can't put it up and lock me in the camper," says Bertalotto.

For extended details on the camper build and later modifications, visit Bertalotto's website and YouTube channel.

Contact: FARM SHOW Followup, Roy Bertalotto, Dartmouth, Mass. (www.rvbprecision.com; YouTube: roybertalotto6355).

"Regenerative agriculture is about reducing inputs and working with nature," says Charlton.

Silvopasture Practices Help Pecan Production

Three years of pasturing Noble Ranch pecan orchards and eliminating the use of chemicals and synthetic fertilizers have paid off with more plant, insect and animal diversity. Noble Research Institute (NRI) investigators are now comparing how these management changes affect pecan production and quality over time. NRI is the largest nonprofit agricultural research organization (Vol. 30, No. 3/Vol. 34, No. 4/ Vol. 39, No. 3).

"We went cold turkey in the pecan orchards," says David Miller, who practiced intensive management on a 25-acre orchard similar to many conventional orchards. "We'd used herbicides to control grass and weeds in 6-ft. strips on both sides of the three rows and sprayed fungicides and insecticides up to eight times a year to protect the six types of improved cultivars growing there."

While Miller didn't practice any grazing, Kevin Pierce did graze cows and stocker cattle for 90 days, March through May. He used less intensive practices on the 300-acre Noble Red River Ranch. He did mow and spray herbicides at times, and sprayed for fungal disease and harmful insect pests.

That all stopped in the spring of 2021 as Miller and Pierce switched to multi-paddock grazing, rotating cows, calves and stockers, as well as sheep and goats, to feed on the plentiful forage. The forage included troublesome honeyvine milkweed that tended to wrap around pecan harvesting equipment.

"Our primary focus was soil health using silvopasture and no chemical inputs," says Nikki Charlton, NRI systems research manager and co-principal investigator for the Noble pecan strategy research team.

Since 2022, the team has monitored and collected data at 67 sites on NRI ranch pecan orchards. In 2023, this research effort was expanded to include gathering data on more than 2,200 acres of pecans. The six-year project involves 22 pecan producers in Texas and Oklahoma.

Practices at the commercial orchards range from high-input, fully conventional orchard management to those in transition to more regenerative practices, all the way to the Noble orchards. Researchers are sampling 151 sites in all. Monitoring includes collecting soil samples for soil health and microbial community structures, leaf samples for tree nutritional status, nut nutrient density and phytochemical composition, and assessing orchard health, including disease and insect pressure.

The research team will compare profitability across the different management styles. They're working with an Oklahoma State University pathologist to monitor soil and nut samples for foodborne pathogens related to grazing regulations under the Food Safety Modernization Act. Using DNA extracted from bat guano, they'll identify bat species and the pecan pests they eat. The hope is that attracting bats to the orchards will reduce pest damage to pecans.

"Regenerative agriculture is about reducing inputs and working with nature," says Charlton. "All of the decisions you're making can really impact the system as a whole."

Miller notes seeing more beneficial insects that help control pecan insect pests. Pierce describes more butterfly, moth and bee activity. "Not only are we not killing the beneficials, we're not killing the plants they feed on either."

Even wild hog predation is down, while deer, wild turkeys and bald eagles are increasing. "Because we either kept vegetation sprayed or mowed, there was no cover for them," says Pierce. "Now they have a place to live."

Pierce credits guard dogs protecting the grazing sheep and goats for the reduced damage from wild hogs. "Wherever the dogs are, the hogs aren't out there tearing up the orchard," he says. "That's helped with our wild hog problem, because the dogs don't want them around."

"Producers were excited to see how we use temporary fences to graze the orchard successfully without harming the irrigation system," says Charlton. "We're already seeing some participating producers making changes toward more regenerative practices."

Contact: FARM SHOW Followup, Noble Research Institute, 2510 Sam Noble Pkwy., Ardmore, Okla. 73401 (ph 580-223-5810; www.noble.org).

Weigh Kits Provide Fertilizer Data

Circle A Ag developed an aftermarket scale system kit to provide farmers with more clarity on self-propelled applicator fertilizer weights to fit most makes and models.

"We specialize in scales for floaters with booms but would be happy to help design a system for any spreader," says company owner Andrew Dueck.

Currently, the scales are designed for John Deere, Case and TerraGator applicators. The kits contain everything needed for installation, including videos, manuals and 30 ft. of electrical leads.

The system features a Libra Express application for Apple and Android. Dueck says the installation is simple and can be completed in a few hours. The 12-volt powered control box is mounted in the cab. Load bars are rated at 20,000 kg (44,095 lbs.) each and connect with a lead running to a power junction box. From there, a single cable travels back to the cab controller, where a Bluetooth signal makes the connection.

The weigh bar kits come with four bolt-on or weld-on brackets, rubber bushings, and bolts to fit each corner.

"Producers can see how much fertilizer they're using and how much is left," Dueck says. "They can even save different loads to memory. It's a basic system providing very usable information."

The kits are manufactured in Manitoba and shipped directly to the customer. They sell for $9,500 CAD ($6,650 USD) plus S&H.

"What sets our product apart is the double-shear, square load bars, which are well over capacity for what the applicators can hold," Dueck says. "Unlike round weigh bars, ours spread the weight more evenly, so there's not as much stress on the bars and mounting brackets."

Contact: FARM SHOW Followup, Andrew Dueck, Circle A Ag, Box 6016 RR2, Beausejour, Manitoba, Canada R0E 0C0 (ph 204-266-2085; circleaag@gmail.com; www.circleaag.ca).

"We specialize in scales for floaters with booms but would be happy to help design a system for any spreader," says company owner Andrew Dueck.