

Dale Rogers made an air conditioning unit from an auto radiator, fan and hose from a well.



“Made It Myself” Air Conditioning

“It’s been hot and dry in Saskatchewan this past summer so our home was getting pretty warm inside. We don’t have air conditioning. So I hooked up a radiator and fan from a small car to a water hose that runs to our well,” says Dale Rogers, Mayfair, Sask.

“I built a stand that holds the radiator upright on a rubber mat that catches any leakage. Cool water from the well flows into the bottom of the radiator and then exits out the top back to the well.

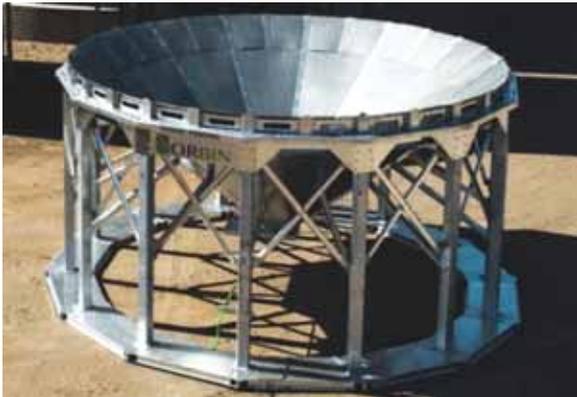
“I put two taps on the inlet side. One is to turn it on and off and the other one regulates the amount of water flow. That way, when I turn it back on again, I don’t have to

experiment with the amount of water flow. I set the ‘regulator’ tap so the water coming out of the top of the radiator is cool, but not cold. If the top return hose is cold, then I know there’s too much water circulating. If the top hose is warm, then I’m not getting maximum cooling.

“I connect the fan wires up to a 12-volt battery and then hook up a battery charger to the battery to keep it fully charged when the fan is running. Works great!”

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Norbin offers both grain drying and gravity flow with its dual floor system.



Double-Floored Grain Bin Hoppers Improve Aeration

By Bruce Derksen

Flat-bottomed bins with an aeration system work well to dry grain but farmers still need to go in and shovel out the last couple hundred bushels.

Hopper-bottomed bins empty by gravity flow, but aeration systems don’t work as well in them, often leaving dead pockets and spoilage.

“We wanted to have both of the positive benefits in one bin,” says Frank Zacharias, owner of Norbin Grain Storage. “We put a full floor air system in a hopper bin. It’s galvanized so you don’t have to worry about upkeep and spoilage.”

Zacharias, along with brothers Adolf and Albert, started working on the hopper bin aeration problem about 3 years ago. They launched their finished product in the spring of 2020.

“The system is like a standard hopper with a separate floor about 6 in. higher than the main floor. An air plenum is created putting distance and open area between the floors so the air can flow between,” Zacharias says. “It’s like a manifold effect. The fan is mounted on the outside and the system pressures up the area between the floors. The second floor is made up of perforated louvers, so the air is forced into the grain across the entire area.”

The long-lasting galvanized hopper



Perforated louvers make up the second floor forcing air into the grain.

bottoms are manufactured in Winkler, Manitoba by Norbin Bin Storage and can be shipped anywhere, broken down on pallets. A Norbin crew assembles the hoppers at their destination or farmers can erect the units themselves. The double-floored hopper bottoms can be a part of a new grain bin or built under an existing hopper bin.

Sizes range from 14 to 36 ft. in diameter but can be custom built to fit other dimensions if necessary.

Costs vary depending on size, but Norbin’s most common request is for their 27-ft. model. Complete with a full floor air system and skid, it’s priced at \$50,000 CAN. Units without an air system sell for around \$38,000, all plus S&H and assembly.

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Calf Catcher works with a skid steer, loader or 3-pt hitch to drop down over a calf, creating a safe area to work.

“Catcher” Helps Work Calves On Pasture

Investing in a Calf-Catcher may seem like a luxury to many beef producers. But Ted Lacey, who designed it, contends it’s much less expensive than \$50,000 in medical bills. Nine years ago, the Trent, S.D., rancher was working with a newborn calf and ended up rammed and stepped on by its mother. Initially, he was treated for compressed disks and a numb arm, but later dealt with pain that led to spinal fusion surgery.

Within 4 mos. of the incident, Lacey created a calf catcher out of scrap material. Now he and his son, Andy, build them at their business, The Hay Manager, which specializes in hay feeders, including a new one designed for goats.

With a quick-attach mount, the Calf-Catcher works with a skid steer loader or 3-pt. hitch and is designed to drop down over a newborn calf. Once it is inside, the producer

can move into the 5 by 6-ft. box and let down the Marine-grade plywood floor to vaccinate, tag and castrate the calf or move it.

“The nice thing is that when you have the calf in the pen the mother will follow wherever you go,” Lacey says. So, they often load a few calves in the Calf-Catcher and move it to a nearby pasture with the mother cows following.

It’s built out of square tubing on a 1/4-in. angle iron frame. At 66-in. tall, including the legs, it’s tall enough to protect you when you’re inside. A door on the front can be opened to release the calf by pulling a cable from the back of the pen.

Calf-Catcher retails for about \$1,500.

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Solar-Powered Livestock Composter

Smart Ag Solutions of Mount Forest, Ontario says it has revolutionized deadstock composting with its 18-ft. solar-powered continuous composter called the Omnivore.

Co-owner of Smart Ag, Bert Meijering, says the idea for the futuristic composter came about during conversations with customers at an international poultry show in London, Ontario. Bert and his co-owner put their heads together and came up with the solar-powered cylindrical stainless steel tube model to handle poultry and hog composting.

Smart Ag Solutions also builds electrically-driven models ranging from 5 to 50 ft. in length with their solar-powered unit measuring 18 ft. It comes fully equipped with a 100-watt solar panel, battery pack, temperature gauge, timer and 12-volt motor.

“On a cloudy day the battery will charge itself in 20 minutes,” explains Meijering. “The composter makes a single revolution each day taking approximately 60 seconds. We want it to tumble really slowly. That’s where solar works well because it has lots of time to charge.”

Four things are required for composting says Meijering. “The deadstock (nitrogen), a carbon source (typically shavings or straw), oxygen which is present when the door opens, and heat that builds naturally when the first 3 requirements are met. When we add a proper carbon source, we get a very nice end product. The compost material should be about 50 to 60 percent in moisture content. Basically, it’s about one to one in volume. One pail of deadstock to one pail of dry shavings. Full grown birds might need more shavings and old dry laying hens a little less.”



The Omnivore is a solar-powered composter for poultry and hogs.

Meijering explains deadstock plus shavings or straw are loaded from one end through a small door. The composter’s timer can be programmed to automatically turn the drum. Small paddles inside the cylinder move the material approximately 16 in. during each rotation. In 14 to 21 days, compost travels from one end to the other where a door opens by way of gravity and releases the finished product ready for use.

The 18-ft. solar-powered Omnivore is manufactured at the Smart Ag Solutions shop in Mount Forest, Ontario and sells for \$27,500 (Can.) plus S&H.

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