



The 1,500 gal. tank receives pumped water from a 3,600 sq. ft. metal building and also direct runoff from a nearby garage.

COLLECTS RAIN WATER IN 1,500-GAL. TANK

“Run-Off” System Stores Water For Garden, Yard

“It’s a great way to collect water for our garden and yard and could easily be used to water livestock,” says Alfred Steinke, Bismarck, N. Dak., who came up with a nifty rain water collection system that collects run-off from roofs of farm buildings and stores it in a 1,500-gal. tank.

“We built a new 3,600 sq. ft. machine shed which took up about half of our garden area. That got me thinking that I could install a rain run-off collector that would double the amount of rain water available for the remaining garden area,” says Steinke.

Run-off from the metal building is collected at two downspouts and piped via gravity flow to a buried sump pump where it’s pumped through a 2-in. pipe to a 1,500-gal. storage tank. Run-off from an adjacent garage flows directly into the tank.

“My calculations indicate that .67 in. of rain from the 3,600 sq. ft. building alone will fill the 1,500 gal. tank if the rain is gentle enough so the sump pump can handle it. We use the stored water for garden and tree watering by gravity flow and even do some lawn sprinkling using a booster pump. The water could easily be used for livestock or to supply soft water to the house for laundering and other chores.

“It’s amazing how quickly water runs off a metal roof in even the lightest drizzle. Just the other day we got just .10 in. of rain but it gave us a good 200 gal. of run-off from the metal building. However, I don’t be-



Partially buried 55-gal. drum receives water from the 1 1/2-in. collector pipes.



A funnel attached to a downspout directs rainwater into a buried plastic pipe.

lieve there was any run-off from the garage which has wood shingles. The shingles probably soak up at least .10 in. of rain before there’s any run-off.

“We’ve used this rain water collection system for three years. In 1988, one of the hottest and driest summers on record, we had good garden crops and even had plenty of water to put on our evergreens.”

Contact: FARM SHOW Followup, Alfred Steinke, Rt. 5, Box 175, Bismarck, N. Dak. 58501 (ph 701 223-4732)

USES HYDRAULIC HAND JACK

Slick New Way To Mount Tractor Duals

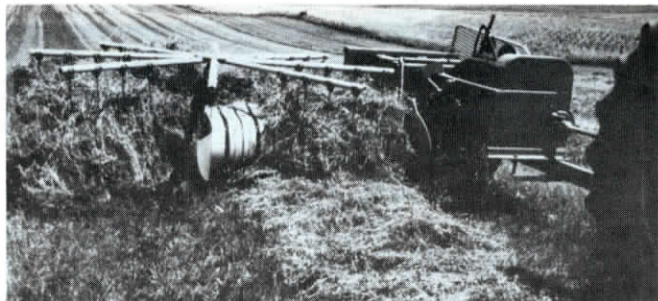
“We think it’s the safest and easiest dual changer ever built,” says Lorne Cooley, farmer and manufacturer of the new “Dual-Matic” dual wheel changer that uses a lift arm powered by a hydraulic hand jack to mount and dismount dual tractor wheels.

The swing-away lift arm is mounted on a pedestal that consists of two brace arms and a drive-on stand. Any 3-ton hydraulic hand jack can be inserted under the lift arm. A pair of scissoring tongs, each side fitted

with a pair of bearings mounted at right angles to each other, lift the wheel to swing it over to tractor. Bearings on tongs allow full wheel rotation to line up bolt holes.

The wheel changer breaks down for out-of-the-way storage. Sells for \$860.

For more information, contact: FARM SHOW Followup, Lorne Cooley, Cooley Enterprises, Inc., Box 126, Pincher Creek, Alberta T0K 1W0 Canada (ph 403 627-2357).



Dale Pangrac stripped a Deere 14T baler of everything but the pickup, bale chamber and pto shaft. Rotor is built from lengths of 1 1/4-in. pipe fitted with rake tines.

FLIPS WINDROW UPSIDE DOWN

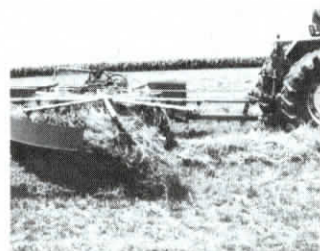
“Junked” Baler Makes Great Windrow Inverter

Dale Pangrac, Lewiston, Minn., converted a junked Deere 14T square baler into a home-built windrow inverter that gently lifts hay and flips it upside down on dry ground.

The hay windrow is moved across the 8-ft. wide turntable by a rotor that’s turned by the gearbox that used to run the baler’s knoter. A series of chains and sprockets was used to gear the rotor to the right speed.

“It’s a low cost alternative to a commercial windrow inverter and does a better job than a rake,” says Pangrac, who built the rig for about \$1,000. “This windrow inverter helps me bale higher-quality hay, cutting 1 to 1 1/2 days off drying time. My self-propelled swather lays windrows that are too narrow for heavy alfalfa to dry adequately. I don’t like to rake alfalfa because it can cause roping, which restricts air movement through the hay. Also, rakes sometimes roll the hay too far over, putting wet hay back next to the ground again. My inverter gently lays hay upside down on dry ground. It doesn’t trope hay and allows good air circulation throughout the windrow.”

Pangrac stripped all components from the baler frame except for the pickup, bale chamber and pto shaft. A local blacksmith built the turntable from sheet metal and the rotor from lengths of 1 1/4-in. pipe fitted with rake tines. Pangrac welded the pipes to a heavy metal plate at the center of the turntable. He bolted the metal plate to a vertical shaft driven by the knoter gearbox below the turntable. Pangrac welded the turntable to the baler’s frame just behind the pickup. A hydraulic orbit motor drives the



Windrow is moved across the 8-ft. wide turntable by a rotor that’s turned by the knoter gearbox.

rotor. A 10-in. high metal backstop welded to the turntable keeps hay from falling off.

Pangrac says the biggest challenge was making the rotor turn at just the right speed which he accomplished by aligning a combination of six chains and sprockets on the outside of the bale chamber. “The rotor has to turn very slow compared to the baler’s ground speed and pickup speed. If the rotor goes around too fast, hay wraps around it. The rotor has to go just slow enough to drop hay gently off the end of the turntable, leaving the windrow the same width while tending the hay slightly for faster drying.”

Contact: FARM SHOW Followup, Dale Pangrac, Rt. 2, Box 77, Lewiston, Minn. 55952 (ph 507 523-2048).

Photo courtesy Hay & Forage Grower Magazine



The swing-away lift arm is mounted on a pedestal that consists of two brace arms and a drive-on stand. Any 3-ton hydraulic jack can be inserted under the lift arm.