

# New Use for Old Tires

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On a recent trip to Montana, I saw a friend of mine using a tire for a livestock watering trough. It was the type used on heavy construction equipment. The bottom was filled with cement, and the upper sidewall had been removed so the cattle could reach the water. I thought this was a unique way to recycle old tires and replace our galvanized and cement tanks that had begun to leak. These tires should, and have, lasted a long time.

At the Kerr Center ranch, we have installed numerous tire water troughs and are pleased with the results. We generally are able to get all the used tires we want from a local dealer free of charge. The sizes vary, however, we prefer 29.5 by 25, which is

about 2.5 feet wide and 6 feet in diameter. This size will hold approximately 528 gallons of water. Larger ones are available if you need more water.

We have linked four tires together with pvc pipe for one rotational grazing system. Only one float was needed to fill all four tires by using gravity flow. To set up the water supply, we drilled a one-inch hole in the bottom sidewall and brought the line into the tire. Depending on the size of pipe you use, the hole should be drilled about 1/4" larger. Galvanized pipe was

used on early attempts, however, using pvc pipe only has also been successful. The only negative about using all pvc is that the chance of breaking at the point-of-entry is greater. A solution to this is to make sure the float is protected under the lip of sidewall of the tire.

One problem we have had is cattle standing in the tanks and breaking off valves or floats during hot weather. We have had very few problems when the float is protected. Also,

the tires are harder for cattle to get into than regular water troughs.

If you decide to use tires for water tanks, avoid steel-belted ones. Toxicity could be a potential problem with the exposed steel, and nylon tires are

easier to cut with a saw. Also, tires with thicker sidewalls should be avoided. We try to get Firestone tires, because they seem to have a thinner sidewall.

If you install a float, leave a lip to protect the valve when you cut out the upper sidewall. You will need to use an air drill to cut the one-inch hole in the bottom and top of the sidewall. The hole on the top sidewall is used as a start point for a heavy-duty reciprocating saw that we rent from a local rental shop. Once the hole is started we place a chain connected to a



loader to pull apart the lip of the sidewall. Another trick is to keep lubricating the saw blade as you are cutting. We use some tide soap in a spray bottle. Generally this requires at least two people and requires about 10 minutes per tire.

Set-up requires some leveling, and if possible, placing some geotextile matting to keep the area dry. Rocks should be placed on top of the geotextile. It takes about two to four sacks of cement to cover the bottom hole. Make sure the cement is highly liquid and smooth and even with the bottom lip. Some leaks may occur in the first day or two but generally tend to seal up. Allow

the cement to dry completely before filling with water. We also recommend a pvc ball valve just outside the tank to shut off water in case of future problems.

Cleaning? We have cleaned the tanks only a few times. It seems the nature of the tires prevents much algae growth from occurring. When we need to drain a tire we just use a garden hose to syphon the water out. They also don't freeze as easily as the galvanized tanks, so require less maintenance.

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