

Water Your Alpacas... Automatically!

by Bill and Sherri Duey

Did you know that there are state-of-the-art watering systems available that can save you both time and money? These systems can provide your alpacas clean, fresh, ice-free water every minute of every day throughout the year.

While growing up on a Midwestern farm, I vividly remember chopping holes in the river ice every day in winter with a double bladed ax to water my father's cattle. And in the summer, the horse tanks used for watering livestock would turn a dark green, heavily laden with algae growth. There had to be a better way.



So when my wife, Sherri, and I set out to develop a first class alpaca ranch, I knew the watering system would be an important component. Alpacas need to have constant availability to clean water throughout the year. In designing our alpaca ranch, we visited with a number of other alpaca owners. We also attended several farm shows and the agricultural displays at a state fair. During our research, we visited with people who had (in total) used ALL of the various waterers that are available on the market. Then we visited a ranch that had, in our estimation, the "perfect" waterer.

Specifically, what we were looking for in a watering system was durability, corrosion resistance, frost-free service,



be economical to operate, be easy to clean on a daily basis, and refill automatically. We found an automatic waterer that fulfilled all of these requirements... and then some!

[Editor's note: out of fairness to all watering system manufacturers, we are unable to specify the brand being discussed by this author...but his discussion is salient even without delineating brand names.] This particular manufacturer's waterers are used for a wide variety of livestock, ranging from horses, cattle, and sheep... to alpacas and llamas... to all types of zoo animals, such as lions, bears, and even giraffes. These waterers have been manufactured since 1949 and over 500,000 units have been sold in that time – so they must be doing something right!

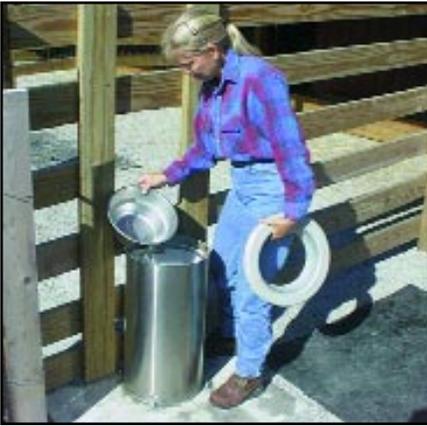
The key to a trouble free watering system is excellent design and proper installation. The waterer we were examining utilizes natural ground thermal heat to keep from freezing in most weather conditions. Installation begins by drilling an 18-inch diameter hole ten feet below ground level, lining the hole with a 12-inch corrugated plastic pipe and then back filling around the pipe. Water and electric service lines are installed to the hole and elbowed up to above ground surface. A concrete slab can then be placed over the hole, with the large



plastic pipe extending up through the concrete. The waterer is then bolted directly to the concrete slab and the utilities connected.

Alternatively, if an owner wanted to save a little money, he could purchase a shorter (and less expensive) waterer, and then elevate that waterer to the desired height by use of a piece of metal conduit. Here's how that would work. Dig the hole as described previously, except dig it only deep enough to ensure that: (a) the lowest portion where the pipes are laid is well below frost line, and (b) the metal conduit sticks up above the ground by the desired elevation height. A typical ratio is to purchase a 10-foot piece of conduit, then bury it nine feet in the ground, leaving one foot above ground. The conduit is then lined with insulation to provide extra thermal protection (in those areas with severe winter temperatures). Finally, the waterer itself is mounted with brackets to the metal conduit. One additional consideration: don't install the watering device so high that crias and weanlings have trouble reaching the watering bowl.

Warm 55° F air from ten feet deep in the ground continuously rises and keeps the waterer ice-free except for temperatures below about 20° F (\approx minus 6° C). In those cases, a



thermostatically-controlled heating element kicks in and does the rest. Heating costs are minimal.

The waterers fill automatically when a certain amount of water is drunk from the bowl by an animal. The bowl becomes lighter, tips like a teeter-totter with a counterweight on one end of a balance beam, and activates a valve to allow water to flow into the bowl. When the bowl is full of water, it tips back and shuts off the valve. Very slick, yet simple design.

Clean up is very simple. Depress a button, twist the cover ring, flip the beam lock, lift out the bowl, dump water out of the stainless steel bowl, replace it, flip the beam switch, replace the cover ring and twist to lock. ALL of this is done in 30 seconds – yes, just thirty seconds. Voilá: your animals always have an endless supply of fresh, clean water.

If it sounds like we are thoroughly pleased with these waterers, we are. Actually, we have two units installed in fences between pastures to serve four separate pens.

Our next project is to find a way to automatically clean up alpaca droppings. Unfortunately, we haven't found the solution to this one... yet!

Bill and Sherri Duey operate Southern Iowa Alpacas ranch located 60 miles southeast of Des Moines. They have incorporated a number of innovative features into their alpaca ranch and are happy to share their experience in new ranch setup with alpaca owners. You may view their website at <http://www.southerniowa-alpacas.com> or contact them directly at alpacas@southerniowaalpacas.com