

### Collecting Water for Wildlife and Landscape

Collecting water for landscape and wildlife can be much cheaper and easier than the demands for in home, potable water. The costs associated with keeping it pathogen free and under pressure are eliminated. This makes the process simple and easy to install.

#### Part Of A System

**Roof:** First you have to have a roof, although metal is most preferred, but any type of roof will do. The smoother the roof the less dust and debris adheres to the roof's surface thus less dirt reaches the tank. The size of the roof will dictate how much water one can collect. The frequency and amount of rainfall monthly and annually will also determine the size of roof needed. For a small wildlife water guzzler a 4 foot by 8 foot roof may be sufficient in certain areas. For larger wildlife or landscape needs a much larger area will be needed. In West Texas large areas of galvanized metal or a smooth sloping rock or compacted soil areas may work. For landscape needs, just the roof of the house may be sufficient. For each square foot of surface area roughly 0.6 gallons of water can be collected for each one inch of rainfall.

**How much rainwater can you collect?** You can estimate the amount of rainwater that can be harvested from a catchment surface (defined as any surface used to collect rainwater such as a roof) with the following calculation:

***Catchment area (sq ft) X rainfall (in) X 0.6 = harvested rainwater (gal)***

A 4'x8' roof has 32 square foot of surface area. A one inch rainfall event would yield 19.2 gallons of water. In a 20" annual rainfall area that would total 380 gallons per year.

**Gutter:** There has to be a gutter to direct water from the roof to the storage tank. There are a number of different types available and for wildlife or landscape usage, as long as it is big enough to transport the water, any type of gutter will do.

**Roof Washer:** Unless fine emitters are

used in a drip irrigation system, the very fine particles do not have to be filtered out. I have used collection systems without any removal of the first runoff water. However I think it will add to the length of time needed before the storage tank will have to be cleaned out. A simple PVC "Y" connection at the top of the down spout with a section pipe with a plug or facet at the bottom to drain the first runoff is sufficient. This section will catch the first runoff or dews and once it is filled, water then goes to the tank. I allow about 1 foot of collection pipe for every 200 - 400 square foot of roof. This water can be drained manually or



**Trash can water collector**

allowed to drip on its own. And this water can even be caught in a bowl for wildlife or allowed to drip on plants.

**Storage Tank:** Tanks are available in a range of materials and sizes. For small installations, tanks, including whiskey barrels, 55-gallon drums, and horse troughs can be used. For large installations, many options exist for manufactured and site-built systems. The size and material the collection tank is made of can vary depending on the size needed, demands for