Texas Water Resources Institute

May 1980
Volume 6
No. 4

Planting Texas Style

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As pioneers moved to Texas from damper, cooler, climates, they learned to adapt their housing, their clothing, and their diets.

Many a pioneer woman, however, brought with her a lilac bush or some other living momento of a far-away home. She placed the bush in her barren Texas yard, then lovingly gave it as much moisture as it would have received from rain in her native state.

Today, Texans with "roots" in other regions of the country have yet to change imported attitudes on landscaping. We must, for instance, have dark green bushes around our houses rather than the gray-green beauties of the desert. Our lawns must be of grasses as soft and thick as those of Kentucky or England--not tough native grass which can survive the dry Texas summers. Areas around schools, public buildings, and commercial offices must also be lush and green to give the impression that rainfall is more than adequate. Even in the driest areas of the state, cities must maintain parks with acres of green lawn and areas of dense foliage.

We will, of course, continue to landscape around houses and buildings. Besides providing aesthetic benefits, living plants help us to physically survive the extreme temperatures in the state. Plants around buildings reduce the amount of energy needed for heating and cooling and also protect buildings from wind and sun.

But why must we make the same mistake as the pioneer woman with the lilac bush? She could have saved herself precious water and effort by transplanting a flowering shrub from nearby. A native plant would have required little care and probably would have thrived with no extra water.

Many horticulturists in drought-prone states suggest that using native plants is the best way to reduce outside water consumption. Scientists here in Texas, still in the collection

and propagation phases of studying native plants, know very little about the water requirements for specific plants. It stands to reason, however, that native plants from areas with low annual rainfall require very little water.

Benny Simpson, research scientist at the Texas A&M University Research and Extension Center in Dallas, is one of a handful of experts on propagating native Texas trees and bushes. He has collected and studied plants from all over the state for the past 30 years.

Simpson now has close to 200 species of native trees and shrubs at the Dallas Center. All have come from seeds or cuttings from the native habitat of each plant, and many have become part of the Center's landscaping. The entire Dallas Center grounds, as a matter of fact, are landscaped with plants native to Texas.

Most months of the year, some part of Simpson's collection is especially showy with bright colored blooms, leaves, or berries. Two of the most promising flowering bushes for future Texas yards are the Texas madrone and the cenizo. The madrone has bell-shaped white flowers, red fruit, and smooth red bark. The cenizo is a shrub with gray or dark green leaves and blossoms of purple, red, or white.

Simpson is interested mainly in native bushes and trees which are attractive enough to be adopted as ornamental landscape plants. A plant is attractive, according to Simpson, because of its leaves, flowers, fruits, bark, or shape. He explains that as native plants are introduced into public and private yards, they will first be noticed because of their appearance. Later, however, they will become popular because of how little care they require, how well they thrive, and how well they survive droughts.

Native plants should be purchased from nurseries, not taken from nature, warns Simpson. Anyone tempted to dig up a native plant and transplant it into a yard (1) may not be successful in saving the plant, (2) may be breaking the law, and (3) may be endangering a particular species. A few native bushes and trees are now available through commercial nurseries and are common in landscaped areas. These include oak, sage, yaupon, magnolia, and mesquite. It makes sense to landscape with plants which require little extra water or care--especially if they can survive a Texas-style drought.

Long Dry Spells

"Long dry spells" are a fact of life in Texas. In most parts of the state, native vegetation and wildlife are limited to those able to endure years of low rainfall. Cities and towns prosper only if they have water supplies adequate to last during water-short times.

If a spell is long enough--and dry enough--it is called a drought. A drought is hard to define because we don't know when it is beginning, and we can't always know when it has ended. For historical records, however, drought is defined by the Texas Department of Water Resources as "less than 75 percent of normal rainfall over a one-year period."

It is easier, though, to describe a drought by its effects. A drought means:

- 1. Low reservoir or groundwater levels.
- 2. Crop loss and poor pastures.
- 3. Stream flow decline.
- 4. Stream quality degradation.
- 5. Bankruptcies and population loss in rural communities.
- 6. Wildlife population decline.
- 7. Forest and grass fire threats.

Stress and anxiety are intangible effects of drought. Even cautioning people about drought can cause distress. When required to cut back on the use of water because of a shortage, many people feel a level of concern similar to that among motorists waiting in gasoline lines. Doing with less--and certainly doing without--often produces anxiety.

Even though drought to urban Texans does not ordinarily mean thirst or bankruptcy, it can mean higher food prices and restrictions on water use. We have made ourselves even more vulnerable to drought by designing homes and yards as though water supply would never be a problem.

Time To Plan

We don't know when the next major drought will occur, but past records assure us there will be another. Statewide droughts seem to have followed a cycle of every 20-25 years. Since the last major drought in the state ended 23 years ago, the threat of inadequate rainfall looms with each passing day.

An extended drought would certainly mean local shortages in many areas and water use restrictions in most Texas cities. Few Texas cities, according to a 1979 survey, have any type of contingency plan in case of drought. Yet recent droughts in California and other western states should serve as a reminder for us that cities should anticipate droughts and be prepared with alternative plans for municipal water management.

Even though city governments must respond to drought, they are seldom prepared for it. During past Texas droughts, decisions regarding management of water resources were based largely on intuition and individual experience instead of on scientifically developed information. City managers initially react to drought by exploring ways of increasing supply and by conserving water.

The last statewide drought, when 235 of the state's 254 counties were listed by the federal government as drought disaster areas, ended in the spring of 1957. During those seven dry years, stringent water use restrictions were imposed upon the residents of large cities as well as small towns. Water for drinking and sanitation purposes was given priority. Lawn watering was considered a luxury use and in many cases prohibited entirely.

Since that time we have many more reservoirs in the state than we had in the 1950's. We have spent millions of dollars on sophisticated statewide planning. We have also developed strong distribution systems and established hundreds of private water

corporations. But there are many more Texans to use the water than there were 20 years ago, and today's Texans use more water per person than their 1950 counterparts used.

Do Something

What about your particular area? Does your part of Texas have more "dry" years than "wet" years? Will your city impose water use restrictions when that inevitable drought hits?

If so, why not start preparations now to make drought impact less harsh on you and your family. The following suggestions will not only help you through a drought, but will save water and money even in normal or wet years.

1. Use household water efficiently. This first suggestion is for everyone whether you live in a house, a dorm, or an apartment. Using only the amount of water you need for a job as well as eliminating water waste makes sense no matter how much rain your area receives. If you missed the March issue of Texas Water Resources on how to save water, let us know and we will send you a copy.

2. Collect and use rainwater. Rain is clean water delivered on-site free of charge. Yet most homes are built and landscaped to carry off the rain as fast and as efficiently as possible. During drought, however, a cistern, tank, or a rain barrel may mean the difference between saving or losing the plants in your yard.

If you are building a house or establishing a new lawn, be sure to consider designs to hold as much rainwater as possible. These include terracing your lawn, building in holding tanks for rainwater, and funneling the water off the roof onto your lawn rather than down the storm sewer.

3. Landscape with native plants. Hopefully, this issue has already convinced you that this is a good idea.

4. Use water more than once. Home reuse systems are not only feasible, but are quite popular in drought-prone areas of the country. More on this topic in next month's Texas Water Resources.

Even though we can't know when the next drought will begin, we should accept the fact that it will indeed come. It may, in fact, have already begun. lt is better to prepare now for drought, rather than wait and have to respond to it. Whatever you can do now to reduce the amount of water used on your yard or in your house will help you live through the next "long dry spell."