Result Demonstration Report

Creating Rainbarrels to Harvest Rainwater
Texas A&M AgriLife Extension Service
Hays County
Cooperators: Hays County Master Gardener Chapter
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Summary

Water, or the lack of it, continues to be a huge issue in central Texas. Recent droughts have brought water issues to the forefront. To accommodate the ever-growing need for water, alternative sources of water must be explored. Rain barrels are one of those alternatives that are quickly gaining popularity for use in the landscape. A one-inch rain can produce approximately 0.6 gallons of water per square foot. If this rain is captured from impervious surfaces such as roofs, a large amount of water can be collected for later use in a relatively short time. Another potential water source is condensation from air conditioners. To draw attention to the importance of rain barrels and how easy it is to construct them, four workshops were held. Rain barrels were also installed at the Hays County Office of the Texas A&M AgriLife Extension Service for use in watering the landscape.

Objective

The objectives of this demonstration are to:

- Introduce people to the concept of rainwater harvesting.
- Promote the use of rain barrels as a source of water for landscape use.
- Demonstrate cost-effective methods of constructing rain barrels out of plastic barrels and plastic trash cans.

Materials and Methods

Educational efforts conducted in regards to rainwater harvesting utilized a PowerPoint presentation that the agent developed. This presentation talked about the importance of collecting rainwater as well as various methods to collect rainwater. Each presentation ended with either a demonstration on how to build an inexpensive rain barrel or leading the group in the actual building of rain barrels. Extension publication L-5518, Making a Rain Barrel, was also distributed at each presentation. In addition to making a rain barrel out of a food grade quality plastic 55-gallon drum, work has also been done in making rain barrels out of large plastic trash cans. Construction of each rain barrel cost less than $40. Follow-up evaluation was conducted with the participants after the program to determine their knowledge gained as well as to determine the rate of adoption of practices.

An additional demonstration tool that was utilized was the construction and installation of two rain barrels in front of the Hays County Office of the Texas A&M AgriLife Extension Service. These barrels were constructed with assistance from the Hays County Master Gardener Association. In addition to collecting rain off of the roof, these barrels also collect condensation from the building's air conditioning units. They are not only functional as a source of water for landscape purposes; they also generate questions and interest from clientele who stop by the office.

Results and Discussion

Four demonstration workshops were given that focused on rainwater harvesting and the construction of rain barrels. The first was held on February 27 for the Hays County Master Gardener Association. Twenty-one people attended this workshop and twenty-five rain barrels were constructed. On March 2, a program was held at Ladybug Natural Brand Products Store in Dripping Springs with ten people attending. Six rain barrels were constructed as a result of this program. The Women's Group at the Church of Jesus Christ of Latter-day Saints in Kyle participated in a program on April 23. Of the twenty-three people in attendance, eleven ended up making a rain barrel. As part of their Lunch and Learn series, the Wimberley Village Library hosted a rain barrel workshop on May 3 with twenty-six in attendance. It is known that seven of those in attendance built their own rain barrel following the program. The final presentation was presented to the San Marcos Extension Education Club on September 9. Of the seven members in attendance, 1 installed a rain barrel at their home.

Conclusions

Through these educational efforts, 86 people learned about the importance of collecting rain water and of those, 46 adopted the practice of building and using a rain barrel. With fifty barrels known to have been constructed, and estimating that each barrel will hold a minimum of 30 gallons of water, it can be estimated that at least 1,500 gallons of water holding capacity was constructed as a result of this programming effort. It is unknown how many additional rain barrels were constructed as a result of this programming effort and the demonstration barrels that are set up at the Hays County Office of the Texas A&M AgriLife Extension Service. It can be assumed, based upon these figures, that the original objectives of this project were met. Work will continue to be done in educating the public on the value of rain barrels.

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