

1253 Civic Center Loop
San Marcos, Texas 78666
(512) 393-2120



Spring 2011 Hays County Agriculture Newsletter

Central Texas Conservation Partnership

The Hays County Office of Texas AgriLife Extension Service, in partnership with the Texas Forest Service, the Natural Resource Conservation Service, and the Texas Parks and Wildlife Department, will be hosting the Central Texas Conservation Partnership. This event will take place Saturday, **June 11** at the Wimberley Community Center at 14068 Ranch Road 12 (River Road traffic light) in Wimberley, from 8:00 am to 4:00 pm. It is designed to provide landowners with knowledge and resources they can use to better manage their land. The tentative schedule is as follows:

- 8:00 - 8:45** **Registration**
- 8:45 – 8:50** **Welcome** – Richard Parrish, Texas AgriLife Extension Service, Hays County
- 8:50 – 9:00** **Opening Remarks**
- 9:00 – 9:50** **Rainwater Harvesting** – Brent Clayton, Extension Assistant, Biological and Agricultural Engineering, Texas AgriLife Extension Service, College Station
- 10:00 – 10:50** **Wildlife Management** – Blake Hendon, Wildlife Biologist, Texas Parks and Wildlife Department, Austin
- 11:00 – 11:50** **Oak Wilt Prevention & Mature Tree Care** – Jim Houser, Regional Forest Health Coordinator, Texas Forest Service, Austin
- 11:50 – 1:00** **Lunch** – provided by Miss Mae's Bar-B-Q
- 1:00 – 1:50** **Predator Control** – Jared Timmons, Extension Assistant, Department of Fisheries and Wildlife Science, Texas AgriLife Extension Service, San Marcos
- 2:00 – 2:50** **Brush Management & Native Grasses** – Vivian Garcia, Range Specialist, USDA Natural Resources Conservation Service, Corpus Christi; and Cresencio Perez, District Conservationist, USDA Natural Resources Conservation Service, San Marcos
- 3:00 – 3:50** **Prescribed Burning & Wildfire Prevention** - Rich Gray, Program Coordinator, Mitigation & Prevention, Forest Resource Protection, Texas Forest Service, Bastrop
- 3:50 – 4:00** **Wrap-up, CEU's and survey**

Please RSVP for the complementary BBQ lunch to either (512) 339-3772 or ebeckers@fs.tamu.edu. Reservations can also be made at the Central Texas Conservation Partnership website: www.texasconservation.org.

New Food Safety Site Caters to Farmers

The annual watermelon harvest that begins in late April will be the start of Texas fruit and vegetable yields from the tropical, southern regions to the fertile, northwest plains.

While fresh produce pours into the market bins, experts are stirring some new safety information into the mix via a new website touting “Safe from our farm to your table” and aimed at those who produce the nation’s food supply.

“Using good practices to produce food from planting to harvest - and in handling and processing - is more and more important,” said Dr. Juan Anciso, Texas AgriLife Extension Service horticulturist. “There was not a lot of information available to the producers per se. We were spurred on by that, but we didn’t want it to be a producers-only site.”

Anciso and colleague Dr. Joe Masabni launched the site, <http://agriflifefoodsafety.tamu.edu> as a “one-stop shop” where farmers or anyone interested in learning a out food safety in production and supply can find answers.

Anciso said assuring safe food supplies is increasingly important for farmers as state and federal governments eye legislation to regulate safety issues.

“This effort puts Texas producers ahead of the game as far as awareness of how to handle food crops,” Anciso said.

This site includes links to educational resources and information on facility sanitation, food allergens, foodborne pathogens, harvester resources, hygiene procedures, kitchen issues, meat and poultry safety, microbiology concerns and produce safety, he said.

“We also wanted to have a training aspect where a person can earn certification, if needed,” Anciso said. “So we are factoring that in.”

The first such course, Food Safety: Texas GAPs and GHPs, provides online instruction in Good Agricultural Practices and Good Handling Practices.

“We asked AgriLife Extension agents in the counties what a person normally wants to know when they make contact,” Anciso said. “So we took that and developed the curriculum to meet those needs.”

Agricultural practices pertains to growing the crop; handling refers to unprocessed vegetables, he said. A third component known as GMP, or Good Manufacturing Practices, will be developed for food processors.

Site development was made possible by a grant from the Texas Department of Agriculture.

Hays County Issues Forum

A community issues forum was conducted by the Hays County Extension Office on March 5 in Wimberley. The top issues identified in the area of Agriculture/Natural Resources were:

1. Groundwater/Surface Water
2. Educate landowners, homeowners and developers to become good land stewards
3. Landowner - knowledge of water/water treatment & land conservation

Hays County Agriculture Production

Though Hays County is becoming more and more urban, agriculture still maintains a stronghold. Estimates from 2010 show that Hays County produced in excess of \$14 million in agricultural commodities. Of these, the top five agricultural commodities in Hays County are:

1. Beef Cattle
2. Horses
3. Recreation/Hunting
4. Goats
5. Hay Production

Rooster Springs Elementary School Youth Water Fair

Staff and volunteers from the Hays County Office of the Texas AgriLife Extension Service hosted a youth water fair at Rooster Springs Elementary School in Dripping Springs on May 18. At this event, fourth grade students learned about the importance of water in their everyday lives. The students participated in six, 20-minute stations which included Aquifers, Water and the Body, Where is the Water in the World?, Watersheds and Pollution, The Water Cycle, and Indoor/Outdoor Water Conservation. Evaluation of this event shows that the young people did increase their knowledge about the importance of water. They also indicated that they will put into practice steps that will help protect our water resources. A big **thank you** to our Hays County 4-H, Master Gardener, and Master Naturalist volunteers who helped to make this event a success!

Grassfed Beef Conference

Extension Beef and Meat Specialists are sponsoring a Grass Fed Beef Conference **June 8-9** in College Station, at the Rosenthal Meat Science Laboratory. The conference will cover the whys and hows to get into a grass fed beef program and economics and marketing. It is aimed at both folks already in a grass fed program and those who are interested in getting into one.

There will be a series of presentations on the first day and a producers panel and the second day we will take the attendees into the meats lab and actually fabricate a grass fed carcass. Attendees will receive a proceedings and be treated to three grassfed beef meals (2 lunches and one dinner, sort of like the Aggie Prime Rib).

The cost of the conference is \$250 and interested folks can go online to register at: <http://agrilifeevents.tamu.edu> keyword Grassfed. More information can be found under the Publications link on the Hays County Extension web site at <http://hays-tx.tamu.edu>.

Extension educational programs serve people of all ages regardless of socioeconomic level, race, color, sex, religion, disability, or national origin.

Helping Drought Stressed Trees

Many calls have come into the Extension Office about trees dying in home landscapes. More often than not the cause is related to drought stress. The damage caused by the recurring droughts of last 10 to 15 years result in trees in yards and open forests declining, and even dying throughout Texas.

Unfortunately, there is little that can be done to reverse the process of a dying tree. For future drought-related problems, if you catch them early enough, it might be possible to save your trees through judicious watering and fertilization. Drought stress also can be relieved by removing weeds and grass - which compete for water - beneath trees and replacing with a three-to-four inch cover of mulch.

Early signs of drought damage are yellowing leaves and premature leaf drop all over the crown. As the damage progresses, leaves will die from the bottom of the tree upward and from the inside of the canopy outward. Sometimes leaves simply wilt, or "burn" along their edges.

Trees need a deep, thorough soaking once a week during the growing season. A watering schedule that is adequate to maintain a lawn will not maintain a tree. A rule of thumb during a drought is to give small, one-year-old trees 28 gallons of water a week, two-year-olds 56 gallons a week, and three-year-olds 112 gallons.

Marty Baker, a retired Texas AgriLife Extension Service Horticulturist, recommended applying water in a donut-shaped pattern starting about five feet from the base of medium to large trees, to about five feet beyond the tree's dripline. Use a soaker hose and let the water flow for several hours once a week. Some species, such as post oak and bur oak, require less water; research your specific tree species for appropriate amounts.

Many trees, especially hardwoods, are harmed by herbicides used in the lawn and garden. Trees already stressed by drought can be killed by a heavy application of herbicide in the root zone. Avoid soil-activated herbicides around trees and always, always read the label directions.

Drought Resources

Recent rains have brought a glimmer of hope that our drought is over with. However, we know that the recent rains we have enjoyed are no where close to what we need to overcome our drought. There is a web site that you can access that contains a wealth of information related to agriculture and the drought. The Texas Extension Disaster Education Network (EDEN) has downloadable publications and links to a large variety of resources in the areas of Agricultural Economics, Animal Science, Agriculture Engineering, Ecosystem Science and Management (Range and Forestry), Horticulture, Soil and Crop Sciences, and Veterinary Medicine. To access this web page, go to <http://texashelp.tamu.edu>. On the left hand side of the page, you will see a link for Droughts. Click on this and explore the wealth of information that is available to you. There are also resources for dealing with other forms of disaster that might occur in the Central Texas area. Don't wait until disaster strikes to get ready. Be prepared well in advance!

Effects of Drought on Plant Growth

Larry A. Redmon
Extension Forage Specialist, College Station

Because of the potential seriousness of a drought whenever and wherever it occurs, landowners and managers need to be aware of the effects of drought on forage growth. Obviously, lack of soil moisture restricts plant growth, both in terms of the total quantity of tissue produced and the time that the plant tissue is produced. The extent to which forage production is decreased by drought varies with the soil type, temperature, vegetation type, and current and past grazing management. Every situation is different and it is impossible to present management guidelines that will be universally applicable especially for a state as large as Texas.

Productivity of annual plants generally will be reduced by drought more than that of perennial plants. In a drought, annuals produce little or no forage. Annuals are not as deeply rooted as perennial grasses and woody forbs or shrubs and trees and therefore cannot tolerate the same degree of moisture deficit. In a drought, annuals will be very short with fewer leaves present and will use available water to produce flowers and a viable seed crop earlier than is normally the case. Typically there are two peak germination periods for annuals in Texas. Germination in the late summer through fall (September to December) will produce cool season annuals that grow roots during winter and spring, with seeding maturing in the spring or early summer before the plant dies. With a lack of fall moisture, some cool season annuals may germinate later as warmer temperatures are encountered. While the drought effects on forage production of annual species is more pronounced compared with perennial species, annuals are well adapted to dry years where they can escape periods of drought by remaining in the seed stage. Warm season annuals typically germinate in the spring as warmer conditions arrive and persist. Annuals such as one-seeded croton, woolly croton and spurges germinate under favorable moisture conditions and bypass much of the rosette type growth of cool season annuals. Of particular interest is the fact that many annuals are the first plants to emerge following drought. This is due to their ability, again, to survive drought in the seed stage and germinate when the drought is broken. Some annuals will be desirable plants while others may not. Be prepared to control unwanted annual species with either herbicides or mowing if warranted.

Typically warm season, perennial sod grasses and bunchgrasses support above ground growth for six to nine months out of the year, depending on where in the state they are located. When initiating growth following the winter dormant season, the plant must draw on food reserves (carbohydrates) that were produced during the previous growing season and stored in the roots or crown of the plant. About 20 percent or more of the current year's growth will occur using these stored reserves before the plant stops using reserves, begins to fully photosynthesize, and maintain itself with mature leaves produced during the current season.

In a drought the plant has to rely on the stored reserves for a longer period of time, thus reducing stored nutrients for future use and increasing the plant's susceptibility to damage in extended periods of drought and grazing uses. A healthy root system is of paramount importance to the growth of a forage plant when we realize that 50% to 80% of the plant exists below the soil surface. An old range science rule of thumb is "if you take the shoot, you kill the root." Whether due to excessive grazing pressure or drought, lack of aboveground photosynthetic material (green leaves) will decrease root production, thus, decreasing the plant's ability to fully exploit the soil profile for badly need moisture.

The lack of available moisture usually reduces the length of the growing season. Warm season perennial grasses will initiate growth in the spring, but produce less forage and go dormant sooner under drought conditions. During drought plant growth begins to slow before carbohydrate reserves (sugars and starches) are replaced. Because of this, grasses may enter a longer than normal dormant period with less reserves. Once rainfall does come, the plant is slower to respond. If heavy grazing has occurred, this may hinder the accumulation of new root reserves. A perennial grass that is heavily grazed during the growth period could stop growth altogether. If soil moisture were declining rapidly at the same time, the grazed plant would not have an adequate opportunity to recover from the combined effects of heavy grazing and drought. In drought years, grazing should be light to enhance the plant's ability to make maximum use of soil moisture available. Plant loss or death occurs in periods with several growing seasons with below normal precipitation.

Effects on forage nutritive value due to drought are variable. If the drought is not so severe as to cause the plant to go dormant or be destroyed, there may actually be an increase in nutritive value. Because plant growth rate is reduced, maturity does not have as great an effect on the plant nutritive value as under more favorable growing conditions. If, however, the drought is severe, nitrogen and carbohydrates will first be mobilized away from the leaf material to the crown or root area with a resulting reduction in nutritive value. If the drought continues, there will be senescence and associated leaf shatter that completely eliminates any potential for the plant to serve as forage for grazing animals.

The effect of drought on forage plants is a function of both the intensity and duration of drought and the general health and vigor of the vegetation before the drought. Plants with healthy root systems and adequate carbohydrate reserves will fare much better during and after drought than plants that have been struggling to maintain themselves continuously. This illustrates the need for a soil test and fertilizer application based on soil test recommendation so that the plant has all of the opportunity to tolerate drought that it is genetically capable of.

Brush Control Workshop

A brush control workshop will be held on **Wednesday, May 25** at the Comal County Extension Office in New Braunfels. No RSVP is required. Register at the door. The cost to attend this workshop is \$10. This includes light refreshments and handouts. The workshop begins at 6:30 p.m. with Dr. Robert Lyons talking about General Brush Control Methods. His presentation will concentrate on Mesquite and Huisache Control. Glenn Avriett will also give a presentation on Laws and Regulations. A total of 2 CEUs will be given (1 ½ General; ½ Laws & Regs). Make sure you bring your Pesticide License Number! The Comal County Extension Office is located at 325 Resource Drive in New Braunfels. For more information, call (830) 620-3440.

Hays County Agriculture Committee

The Hays County Extension Office has an Agriculture Committee made up of individuals from across Hays County. The purpose of this committee is to identify issues within the field of agriculture in Hays County and help develop educational programming to address those issues. If you would be interested in serving on this committee, please contact Richard at the Extension Office at (512) 393-2120.