

Individuals with disabilities, who require an auxiliary aid, service or accommodations in order to participate in any of the above mentioned activities, are encouraged to contact the County Extension Office eight days before all programs for assistance.

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The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating.

For more information contact:



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107 East Roca Street, Refugio, TX 78377
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Fax: (361) 526-4340



TEXAS A&M
AGRI LIFE
EXTENSION

THE REFUGIO COUNTY

AGRICULTURE CONNECTION

<http://refugio.agrilife.org/>

May-June 2013

TEXAS A&M
AGRI LIFE
EXTENSION



Refugio County
107 East Roca Street
Refugio, Texas 78377

«OrganizationName»
«FirstName» «LastName»
«Address»
«City», «State» «Zipcode»

2013 REFUGIO COUNTY CROPS TOUR

June 12, 2013

3 CEUs offered per Tour (Totaling 6 CEUs)

**Morning Tours- Austwell /
Tivoli Area:**

7:00 am – Registration &
Breakfast

Canales Cafe

**Afternoon Tours- Bonnie
View Area:**

4:00 pm – Registration

Bonnie View Park

Tours followed by Dinner Social



Estate Planning Workshop

May 29, 2013

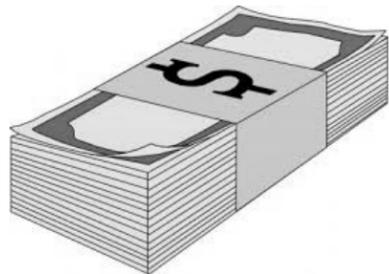
6:30 p.m.

Refugio County Community Center

Presented by Dr. Wayne Hayenga

Professor & Extension Specialist

Texas A&M AgriLife Extension Service



Topics:

Your Will

Estate Administration

Use of Trusts

Estate Tax Planning



In cooperation with the Dennis M. O'Connor Public Library, Texas A&M AgriLife Extension Service- Refugio County, and Texas A&M AgriLife Extension Service- Refugio County Leadership Advisory Board

Row Crops Committee Meeting

May 6, 2013

8:30 am

Extension Office

Livestock and Forage Committee Meeting

May 28, 2013

7 am

Extension Office

Crop Tour Sponsors Needed



Please Support the Refugio County Crops Tour

Making a contribution prior to the tours insures that you are listed on the donors' recognition page of our tour program. Your financial support makes the morning and afternoon meals possible.

Sponsorship Levels

Gold Star-\$300 or more

Gold Star sponsors are welcome to display their company logos at the afternoon tour in Bonnie View.

Silver Star-\$150

Silver Star sponsors can email their company logo to the Extension Office, which will be used in a PowerPoint presentation.

To insure that your company's name is listed on the donors' recognition page, please mail your contribution to us by May 30th, or sooner.

If you have any questions or want to contribute any amount please contact the

Refugio County Extension Office @ 361-526-2825

Crop Nutrient Needs in South and Southwest Texas

Charles Stichler and Mark McFarland- Extension Publication B-6053



Crop fertilization is not an exact science. The soil is a dynamic, changing, and complex mixture of organic matter, minerals, insects, nematodes, bacteria, fungi, water, and gasses. Any change in one or more of these factors can change the availability of nutrients to plants. Much is known about how soils and soil nutrients respond to these changes, but no one can predict precisely which changes will occur. Fertility recommendations for essential plant nutrients are based on “averages” from field and laboratory tests and on what “usually” works best under “normal” conditions. Special circumstances call for specific suggestions.

The primary limiting factor for crop production in Texas is the availability of water. As water evaporates from a plant’s leaves, the roots replace the water with soil moisture. As the roots absorb water from the soil, they also absorb nutrients that are dissolved in the water. The more water the roots absorb, the greater their nutrient uptake. In dry soil, nutrient uptake is limited, even if the nutrients are present. Yield goals should be based on average yields on a farm, historical rainfall information, or expected water applied through irrigation. Typically, nitrogen fertilization is most important, since nitrogen is often depleted from the soil each year through crop uptake, leaching losses, or denitrification (loss to the atmosphere).

Fertilizer use efficiency—the conversion of nutrients into crop yields—also changes with yield. Low yields require fewer nutrients per pound of production than high yields. As the maximum yield for a crop in an area is reached, the plant does not use nutrients as efficiently; so more nutrients are required to produce each additional pound of yield. Thus, fertility recommendations per unit of crop produced will be greater at maximum yields than at lower yields. For example, corn requires 1.2 pounds of nitrogen per bushel when yields exceed 150 bushels; 1.1 pounds per bushel for yields of 100 to 150 bushels; and 1 pound per bushel for yields less than 100 bushels per acre. Adjusting fertilizer rates based on realistic yield goals is essential to maintain environmental quality and to obtain maximum economic returns.

Soil testing should be the basis for any fertility program on any crop. Before buying fertilizer, producers should have the soil analyzed to determine which nutrients are present in adequate amounts, and which are lacking for the crop they intend to grow. The following charts provide information on when nutrients are absorbed and the approximate amounts of nutrients needed by field crops grown in South and Southwest Texas. They are not intended to serve as recommendations on the amounts of fertilizer to apply, but can be used as a guide to estimate proper application rates for crop production at different yield levels.

TEXAS A&M
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Brush, Wildlife & Pond Management Field Day

Friday

May 24, 2013

Registration: 8 am—9am

9:00 am-3:30 pm

**Location: Welder Wildlife Refuge -
10620 U.S. 77**

Sinton, TX 78387

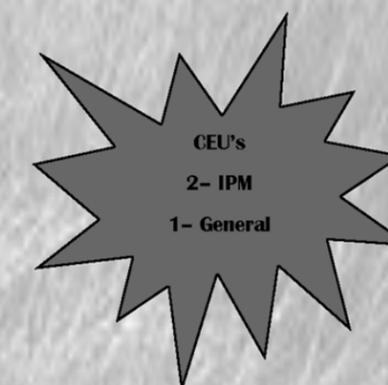
**Fee: \$20 (Catered Lunch) payable
at registration**

Topics

- **Brush Management and Demonstration Plots**
- **Wildlife Management**
- **USDA: NRCS Program Updates**
- **Pond Management**

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For more information:

Texas A&M AgriLife Extension

Refugio County 361-526-2825

San Patricio County 361-364-6234

IPM Updates

Stephen Biles, CEA-IPM

TEXAS A&M
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EXTENSION

Tri-County Field Day

May 10, 2013

Papalote Ranch, End of CR 631 off Highway 181
Between Skidmore & Sinton

Grain Sorghum

Sorghum fields are now susceptible to two kinds of aphids; the **yellow sugarcane aphid** and the **corn leaf aphid**. The yellow sugarcane aphid is usually lemon yellow, 2 mm long, covered with short, black spines, and has two double rows of dark spots on its back. Cornicles are very short. Winged and wingless forms live in the colony. Yellow sugarcane aphids feed on the underside of lower sorghum leaves and inject toxin. Aphids cause purple-colored leaves on seedling sorghum and yellow leaves on more mature plants.

The presence of yellow sugarcane aphids must be determined soon after sorghum plants emerge. The presence of purple-colored seedling plants is a possible indication of a yellow sugarcane aphid infestation; however, leaf purpling also can be caused by cold weather and other factors. Sorghum plants should be inspected beginning the first week of plant emergence and twice weekly until plants have at least five true leaves.

The corn leaf aphid is a dark, bluish-green aphid, 2 mm long, oval in shape, with black legs, cornicles, and antennae. There are winged and wingless forms. The whorl leaf can be pulled from the plant and unrolled to detect aphids when numbers are low. However, this insect rarely damages sorghum.

Sorghum Downey Mildew

This is the time to inspect sorghum fields for Sorghum Downey Mildew (SDM). It is easier to find diseased plants when they are small, before they get crowded out by uninfected plants. Therefore, inspect fields before the crop this week.

Please refer to the attached factsheet for a refresher on the disease process. The systemic, yield-limiting phase of the disease happens before the seedlings emerge. Once you have a few true leaves, you can assess this phase of the disease. It won't increase during the season. It might even decrease, as some of the infected seedlings may die.

I have heard a report of SDM showing up in a Calhoun County field. In the past few years, we have found SDM in Victoria and Refugio Counties resistant to fungicidal seed treatments so it would be logical that the occurrence in Calhoun County is resistant as well.

Management of SDM is accomplished through crop rotation and planting resistant sorghum hybrids. If you find SDM in one of your fields, the damage is done and additional fungicidal application will not affect yield.



Sponsors:



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Matt Bochat, CEA, Bee County
361-362-3280

Michael Donalson, CEA, Refugio County
361-526-2825

Brian Yanta, CEA, Goliad County
361-645-8204

7:00AM— Registration & Breakfast

7:30AM— Water, A Ranch's #1 Resource, Dr. Diane Boellstorff

8:30AM— Brush Control Techniques/Methods, Dr. Megan Clayton

9:15AM— Cattle Identification & TAHC Marketability Program

Demonstration, Brandon Manning, Allflex Tags, Dr. T.R.
Landsford, Texas Animal Health Commission

10:30AM— Ranch Tour

12:00PM— Adjourn

RSVP to Extension office prior to May 7th

3 hours of CEU credit will be offered .

COST: \$15/person

Texas Animal Health Commission to Test Equine Animals in Kleberg County for Piroplasmiasis

AUSTIN – The Texas Animal Health Commission (TAHC) has designated Kleberg County (South Texas) equine (horses, mules, zebras, etc.) at high risk for exposure to Equine Piroplasmiasis (Piro,) and will begin testing equine animals in Kleberg County on Monday, April 8.

An informational public meeting will be held on Monday, March 18 at 6:30 pm at the Dick Kleberg Park Recreation Building in Kingsville. The address of the facility is: Building 501 East Escondido Rd. Kleberg County equine owners and veterinarians are encouraged to attend this public meeting. Region 5 management and TAHC executive directors will provide key information regarding the disease, testing, etc.

Equine Piroplasmiasis is a blood-borne protozoal disease that affects all equine, including horses, ponies, donkeys, mules and zebras. Piroplasmiasis can be transmitted from a positive horse to a negative horse by blood transfer from dirty instruments or insect carriers, such as ticks. Piro is not transmissible to humans. Through research, a treatment protocol was developed that clears the infection and can lead to the release of horses that eventually test negative.

Piro is currently not considered endemic in Texas or the U.S.; however, isolated outbreaks of the disease have occurred.

After extensive testing in Kenedy and Kleberg counties, numerous Piro cases have been detected, therefore Kleberg County has been designated as a high risk area for Piro.

There are an estimated 225 premises and 500 equine animals in the initial Kleberg County test area, extending south from Escondido Creek to the Kleberg-Kenedy county line. Projected completion date is the summer of 2013.

“Equine Piroplasmiasis is considered a foreign animal disease in the U.S., however, new cases continue to be discovered, even three years after the initial case was found,” Dr. Dee Ellis, State Veterinarian, said. “Piro can be spread by way of ticks. South Texas has a high population of this parasite. It is common practice for horses in this South Texas area to be used on local ranches and/or in weekend events such as rodeos, roping, trail rides, etc. Ticks can spread Piro through this very movement of horses,” Ellis stated. “The TAHC is asking for the support of equine owners and veterinarians to make this testing effort a success and help assure the health of the equine population.”

For Kleberg County equine owners and/or veterinary practitioners who have questions, contact the Region 5 Office at 1-361-358-3234. For more information on Piroplasmiasis, visit www.tahc.state.tx.us/animal_health/equine/piro.html.

Testing your Private Drinking Water Well

Texas A&M AgriLife Extension Service: Diane Boellstorff, Kristine Uhlman, Mark L. McFarland, John W. Smith

How long has it been since you sampled and analyzed the quality of your drinking water? Do you know what to analyze for and where to go to find a lab? Water companies that sell water are required by Federal law to report the complete water chemistry to the consumer. To analyze your well water for the full list of EPA recommended tests would cost nearly \$4,000, and for that reason you should prioritize your analyses to those contaminants that are most likely to be in your well water.

Once a year, sample and test for:

- *E.coli* or fecal coliform (bacteria from human or warm-blooded animal waste)
- Nitrate
- Total Dissolved Solids (TDS)

There may be other constituents that could be naturally occurring in your area, or the result of past environmental releases. Contaminants such as arsenic and radionuclides are naturally occurring in parts of the state. Our petroleum exploration heritage may have resulted in impact to your drinking water aquifer. Sample your well whenever you suspect contamination; notice a change in color, taste or odor of the water; after pump or well maintenance; and, if there is any change in health of those who drink the water.



To find a laboratory,

Call your local County Health Department, or select from a list of National

Environmental Laboratory Accreditation Program (NELAC) certified drinking water laboratories at:

http://www.tceq.state.tx.us/assets/public/compliance/compliance_support/qa/txnelap_lab_list.pdf.

Beef cattle researchers explore nutritional strategies to time puberty in replacement heifers

•Writer: Blair Fannin, 979-845-2259, b-fannin@tamu.edu

•Contacts: Dr. Marcel Amstalden, 979-845-3597, m.amstalden@tamu.edu

Dr. Gary Williams, 361-358-6390, glwilliams@tamu.edu

BEEVILLE – Cattle producers typically wean replacement heifers at seven months of age and raise them with limited nutritional input before their first breeding. This managerial strategy is often associated with delayed puberty, particularly in tropically-adapted *Bos indicus*-influenced cattle, according to researchers.



To maximize successful pregnancies in replacement heifers early in their first breeding season, studies conducted at Texas A&M University and at the Texas A&M AgriLife Research Station-Beeville are evaluating nutritional strategies to promote puberty consistently by 12-14 months of age in *Bos taurus* x *Bos indicus* crossbred heifers. Pictured are BrahmanXHereford-F1 heifers. (Texas A&M AgriLife Research photo)

In Texas, *Bos indicus* influence generally comes from Brahman genetics, but can involve the Nelore breed as well. To maximize successful pregnancies in replacement heifers early in their first breeding season, studies conducted at Texas A&M University and at the Texas A&M AgriLife Research Station-Beeville are evaluating nutritional strategies to promote puberty consistently by 12-14 months of age in *Bos taurus* x *Bos indicus* crossbred heifers.

Drs. Marcel Amstalden and Gary Williams, reproductive physiologists at Texas A&M University and Texas A&M AgriLife Research, along with doctoral students Rodolfo Cardoso and Bruna Alves, are evaluating mechanisms that lead to the early onset of puberty in heifers. The goal of the work is to use newfound fundamental knowledge

of heifer development to optimize pregnancy in replacement heifers by 15 months of age and increase the proportion of heifers calving early in their first calving season.

“Nutrition plays an important role in the developmental controls of puberty in heifers,” Williams said. “Breed type is a factor as well, and there are dietary strategies that can help us time the onset of puberty.”

Recent research has shown that age at puberty in *Bos taurus* beef heifers is reduced to approximately nine months of age by early weaning calves at three to four months of age and feeding high-concentrate diets that promote increased rates of body weight gain for as little as 70 days, according to the researchers.

“A similar response is observed in heifers with *Bos indicus*-influence,” Williams said. “Our studies have indicated that early weaning, combined with elevated intake of high-concentrate diets, is associated with enhanced propionate production in the rumen and increased concentrations of the fat-derived hormone, leptin in circulation.”

“The brain is a major target for leptin’s control of feed intake and energy expenditure,” Amstalden said. “Because the impact of nutrition on age at puberty is largely mediated at the hypothalamus, a region of the brain involved in the regulation of various body functions including reproduction, studies have focused on this brain region to explain the process of reproductive maturation.”

Their studies have found that a number of genes in the hypothalamus are regulated by nutrition and body weight gain during calthood. Structural and functional changes in neurons (nerve cells) are also evident. These scientists are now testing management changes that would improve pregnancy rates early and optimize lifetime productive in replacement heifers.

However, the scientists warn that strategies to accelerate puberty have to be considered with caution to avoid precocious puberty and unwanted pregnancies, compromising heifer development and reproductive efficiency later in life.



Funding for the research has been provided by the Texas Beef Enhancement Program through AgriLife Research and by the Agriculture and Food Research Initiative Competitive Grants from the U.S. Department of Agriculture-National Institute of Food and Agriculture.