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WATER WELL OWNER TRAINING — APRIL 13

Volume 16, Issue 1

April 2016

Anyone interested in private water well management is invited to a Texas Well Owner Network (TWON) training on Wednesday, **April 13, 1 pm - 5 pm, at the Lincoln Community Center.**

The training is free and open to the public. Drew Gholson, Texas A&M AgriLife Extension Service program specialist and network coordinator, said "The TWON program is for Texas residents who depend on household wells for their water needs, so they can learn about improving and protecting their community water resources."

"The program was established to help well owners become familiar with Texas groundwater resources, septic system maintenance, well maintenance and construction, and water quality and

treatment," said Gholson.

He said participants may bring well-water samples to the training for screening. The cost is \$10 per sample, due when samples are turned in. Bringing water samples to the training is not required, Gholson said, but those wanting to have water samples analyzed must attend.

"Water samples will be screened for nitrates, total dissolved solids and bacteria," Gholson said.

Well owners who would like to have their well water sampled can pick up two sample containers from the AgriLife Extension office for Lee County, 310 S. Grimes St. in Giddings, or for Bastrop County, 901 Pecan

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GRASSFED BEEF PRODUCTION CONFERENCE

Texas A&M AgriLife Extension Service is pleased to announce the **5th Annual Grassfed Beef Production Conference.** Consumer interest in natural, grassfed and organic beef continues to rise. If you'd like to learn more about grassfed beef production and how it's different, mark your calendar for **May 26-27, 2016**, to be in College Station.

We're excited about the interest among participants and the outstanding lineup of speakers that will come together for this information-sharing opportunity. Here's a chance to learn more about beef production... from pasture to plate.

Here's a quick preview of the agenda:

- Overview of the US Beef Industry
- Defining natural, grassfed and organic
- Growing forage - the fundamentals
- Cattle types suited for grassfed beef
- Forage-based nutrition for cattle
- Preventative herd health
- Handling Cattle for Wholesome Beef
- Carcass fabrication... a demonstration
- Consumers... and their expectations
- A Taste of Texas Beef
- Marketing a unique product
- Sustainability

Lee County Extension News is a service of Texas A&M AgriLife Extension Service in Lee County.

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Portions of this newsletter are cited from the Texas A&M University Beef Cattle Browsing Newsletter, Dr. Steve Hammack.



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Educational programs of the Texas A&M AgriLife Extension Service are open to all people without regard to race, color, religion, sex, national origin, age, disability, genetic information or veteran status.

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

ANNUAL REPORT RECAPS STATE AND NATIONAL BEEF CHECKOFF PROGRAMS

The Texas Beef Council (TBC) recently published the 2015 annual report highlighting key state and national programs in the areas of promotion, research and education. Included in the Annual Report is an overview of revenues and expenditures for fiscal 2015.

"I'm proud to announce the release of our annual report which includes financials and program highlights from the first year of the state beef checkoff program as well as the national beef checkoff program," said Austin Brown III, rancher from Beeville and chairman of the TBC board of directors. "The annual report is a great source of information that gives Texas beef producers an opportunity to learn more about how both checkoff program dollars are being invested in demand-building programs throughout the year."

TBC conducts the \$1 per head national checkoff program for Texas beef producers and is also a contractor for the

Beef Promotion Research Council of Texas (BPRCT), which administers the \$1 per head Texas state checkoff program.

The national Beef Checkoff Program was established as part of the 1985 Farm Bill and assesses \$1-per-head on the sale of live domestic and imported cattle, and the equivalent on imported beef and beef products. Under the law that guides the checkoff, 50 cents of each Texas checkoff dollar must go to the Cattlemen's Beef Board for national programs. The TBC board of directors, consisting entirely of Texas cattlemen and women, invests the other half dollar in programs conducted in Texas as well as additional national and international beef marketing programs.

Texas beef producers voted in June 2014 to establish a state-level beef checkoff program which was approved and began collections October 1, 2014.

The program is funded through a refundable \$1 per head assessment on cattle at each point of ownership transfer in Texas. The funds are managed in accordance with Texas law by the BPRCT. The BPRCT consists of 20 Texas cattlemen and women appointed by the Texas commissioner of agriculture. Unlike the national checkoff program, the BPRCT oversees the entire \$1 checkoff assessment and can choose to invest state dollars in the areas of promotion, research and education in Texas, the U.S., and international markets.

The report presents the combined financial results of TBC and BPRCT and includes a chart indicating the percentage breakdown of investments in each program area. The chart also shows TBC's voluntary investment in the Federation of State Beef Councils and combined voluntary investment in U.S. Meat Export Federation (USMEF). Some of the programs highlighted in the report include health influencers, social media, retail education, beef quality assurance, international marketing, BEEF team, public relations, issues management and retail promotion.

The report's reverse side summarizes similar information on national programs approved by the Cattlemen's Beef Board and contracted through organizations such as the National Cattlemen's Beef Association and the USMEF.

To request a copy of the annual report summary or a more detailed audited financial report, please email beef@txbeef.org or call toll-free 1-800-846-4113. The annual report can also be viewed online at TexasBeefCheckoff.com.

[http://texasbeefcheckoff.com/?mc_cid=881294c6d4&mc_eid=e62cc6aa2e]

Water Well Owner Training

Cont'd from Page 2

Street in Bastrop.

Space is limited, so attendees are requested to register at <http://twon.tamu.edu/training> or by calling 979-845-1461 as soon as possible.

Gholson said the training is 1 of 30 programs being conducted statewide through the Preventing Water Quality Contamination through the Texas Well Owner Network project.

More than 1 million private water wells in Texas provide water to citizens in rural areas and increasingly to those living on small acreages at the growing rural-urban interface, he said.

"Private well owners are independently responsible for monitoring the quality of their wells," Gholson said. "They are

responsible for ensuring their drinking water is safe. This means they are responsible for all aspects of the water system - testing, inspecting, maintaining - and this training will help private well owners to understand and care for their wells."

Funding for the Texas Well Owner Network is through a Clean Water Act nonpoint source grant provided by the Texas State Soil and Water Conservation Board and the U.S. Environmental Protection Agency. The project is managed by the Texas Water Resources Institute, part of Texas A&M AgriLife Research, the AgriLife Extension and the College of Agriculture and Life Sciences at Texas A&M University.

TIMING OF GROWTH IMPLANTS FOR STOCKERS

Stocker calves often experience various types of stress before being received including, but not limited to, weaning, commingling, handling, and transportation. There has been some speculation that such stress might adversely impact response from growth implants. A group of 203 bull or steer calves of rather uniform weight (averaging 447 ± 6 lb) and of unknown health history were obtained from local livestock auctions. Calves were vaccinated for BRD, Clostridia, and tetanus, dewormed, and any bulls were castrated by banding. At that time, calves were assigned to one of four experimental groups: 1) implanted at processing with Synovex S®, 2) implanted

14 days later, 3) implanted 28 days later, or 4) not implanted. All calves were placed on a corn-gluten based receiving ration for 42 days followed by 78 days grazing wheat pasture.

At the end of wheat pasture grazing, non-implanted controls averaged weighing 689 lb. Implanted groups averaged 732 lb, significantly above controls. There was no significant difference among the three implanted groups. There were no significant differences among the four groups in health status during the entire trial. The authors concluded “our observations suggest that there is not a clear benefit to delaying growth implantation and that a growth implant

does not affect health or vaccine response in newly received calves”.

[J. Animal Sci. 93:4089; West Texas A&M Univ., Univ. of Arkansas, Zoetis]

PRICE PREMIUMS FROM VALUE-ADDED SALES

The Oklahoma Quality Beef Network (OQBN) is a joint project of the Oklahoma Cooperative Extension Service and the Oklahoma Cattlemen's Association. Every fall, OQBN certified sales are held at livestock markets throughout the state. Two categories of certification are offered: 1) VAC-45 for ranch-raised calves weaned at least 45 days; and, 2) PRECON, which can include calves gathered from various sources that have been together at least 60 days from receiving and processing.

For both verifications, producers must follow a specified vaccination protocol for BRD complex, clostridial, and Mannheimia-Pasteurella protection. Groups must be verified for compliance with program requirements by Oklahoma State University personnel.

Data were collected from eight sales held in October through December 2015. Included in the data set were 501 lots with 6,095 calves, an additional 2,796 head of OQBN calves sold private treaty, and 9,090 non-certified calves.

The weighted average price for certified calves was \$11.08/cwt higher. This compares to previous year's averages of: 2011—\$11.09, 2012—\$11.31, 2013—\$10.37 and 2014—\$19.20 (when prices everywhere were at an all-time high). Premiums were highest for calves weighing 300-400 lb. Deleting the high year, premiums for a 550 lb calf would be about \$60/hd. (In personal conversation, Dr. Ted McCollum, Texas A&M AgriLife Center at Amarillo, notes a good many of these calves may be bought by wheat farmers willing to pay perhaps more premium than some producers would to minimize health problems.)

Any price premium from value-added programs should be evaluated with weight gain realized during the post weaning period and total cost incurred. Other value-added programs are available to producers in several states. For more information on this program see <http://oqbn.okstate.edu/>.

[Beef Cattle Browsing, March 2016; <http://animalscience.tamu.edu/beef-cattle-browsing-march-2016/>]

Beef Quality Assurance

Tip-of-the-Month

When giving injections, needles can break or separate from the barrel of the syringe and remain in the animal. While this is extremely rare, consumer safety is seriously compromised if the animal enters the food chain.

Best Management Practices to prevent broken needles include:

- restrain animals properly;
- do not straighten and use bent needles again, replace immediately;
- change needles when they get dull or after 10 head, whichever comes first;
- if you have a problem with bent needles (even after proper restraint), step up to a larger diameter needle, such as going from 18 to 16 gauge.

[Beef Cattle Browsing, March 2016; <http://animalscience.tamu.edu/beef-cattle-browsing-march-2016/>]



COW NUMBERS VS. BEEF PRODUCTION

Based on Jan. 1, 2016 USDA figures, beef cow numbers have started to build back, but are still about one-third lower than the mid-'70s peak of around 45 million head. What has happened to beef production over that period? As the chart below shows, cow numbers and beef production tracked closely from 1950 to about 1980. (Earlier data show that relationship goes back even earlier than 1950.) In 1980, beef production started gradually increasing even though cow numbers declined. Why?

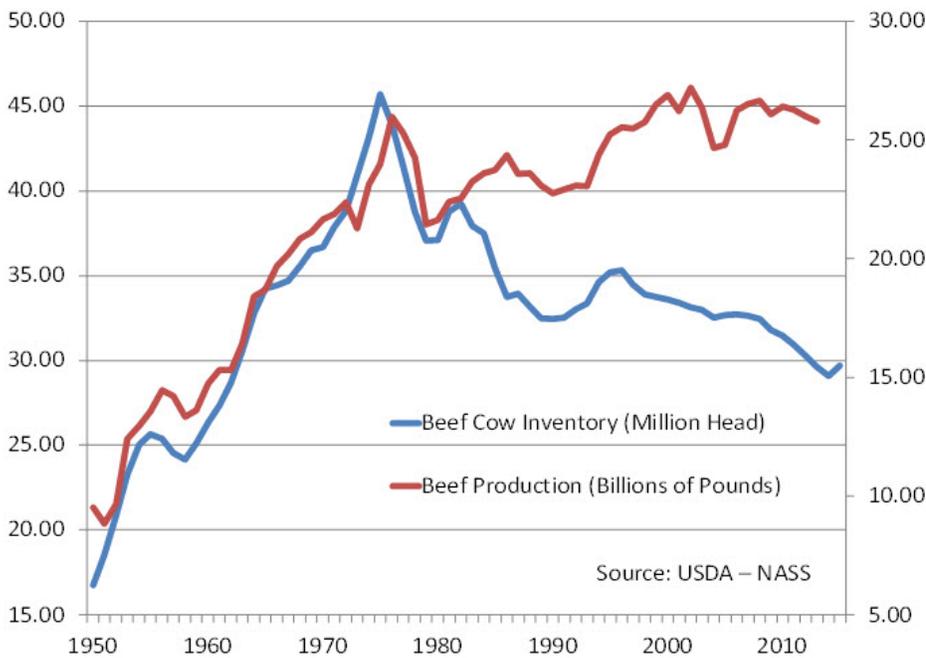
tion reports about 1400 lb. for mature cows which also is about the current average of finished steers. So that factor alone results in more beef per cow.

By at least 1950, and continuing for 20-25 years, the average mature beef cow weighed about 1000 lb and the average finished steer weighed about the same. Today, the average beef cow weighs 1300 lb or more; the American Angus Association reports about 1400 lb. for mature cows which also is about the

for several decades. Sires and dams being used were about genetically equivalent in size (and had been for a while) and there was little if any interest in getting cattle bigger. Then, emphasis started being placed on increasing size. Producers started using sires genetically larger than the cows in the herd, both through within-breed selection and use of newly-imported larger breeds. This meant calves were genetically larger than their dam, so more beef was produced per cow. This effect is still in place today, though not to the extent seen earlier. (Over time, as replacement heifers were kept from larger and larger sires, average cow size also gradually increased.)

At one time, large numbers of calves were slaughtered right off the cow, especially in the South. Old timers here will remember the fat slaughter calf market. I grew up in a small town in the northern Blacklands of Texas. Our local, small grocery stores had only calf and no fed beef. With the advent of large-scale commercial feedlots in the '60s, practically everything not kept as replacement females now goes to a feedlot. That results in more beef per cow, as do nutritional advancements, growth promotants, etc .

Finally, does more beef per cow necessarily mean higher efficiency? Probably not. Without knowing everything that goes into production, including cost, beef produced per cow is more a measure of production than of efficiency.



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current average of finished steers. So that factor alone results in more beef per cow.

Up until the late '60s or so, size (that is, body weight, the best measure of size) of beef cattle had pretty well stabilized

[Beef Cattle Browsing, March 2016; <http://animalscience.tamu.edu/beef-cattle-browsing-march-2016/>]

Effect of Early Weaning on Cow/Calf Performance and Efficiency

Early weaning has sometimes been suggested in recent years, particularly when forage availability is reduced, milk production declines, or body condition of cows may become below optimal. One of the possible benefits put forward is better nutritional efficiency. Over two years and two locations, 156 lactating cows that had calved at least twice were managed in drylot. At calving, all cows were fed 20lb DM/day. Half of the calves were weaned at an average age of 91± 18 days of age (EW) and the other half at 203± 16 days (NW). At early weaning, those cows were limit-fed 15 lb DM/day and their weaned calves 9 lb DM/day until weaning. Cow/calf pairs received 24 lb DM/day until normal weaning. Throughout the study the ration was 15-20% CP, 78-80% TDN

(depending on year and location), containing various amounts of corn silage, distillers grains, cornstalks, wheat straw, and supplement.

From the date of early weaning to normal weaning, EW dams averaged gaining significantly more (37 lb) than NW dams. Cow Body Condition Score and conception rates did not significantly differ between the two groups. At 203 days of age, calf weight for NW was significantly higher for EW at one location and significantly higher for EW at the other location. Calf ADG/total feed consumed (cow + calf) was significantly greater for NW at one location and tended to be greater for EW at the other location. Across both locations, ADG/feed was not significantly different.

The authors concluded “because calf ADG per unit of feed energy intake for the cow and calf combined were relatively similar, the total energy requirements for weaned cows and calves or nursing pairs do not appear to be markedly different”. NOTE: In situations where early weaning has been shown to be beneficial, the primary benefit is generally derived from improved reproduction due to better cow body condition. Also, early weaned calves immediately placed on high concentrate rations have sometimes been shown to produce higher levels of carcass marbling than traditionally managed calves.

**Prof. Anim. Sci. 31:455;
Univ. of Nebraska**

BEEF BREED NUMBERS ... THEN AND NOW

The National Pedigreed Livestock Council (NPLC) is an organization of US livestock registries. Most of the more numerous beef breed associations are members of NPLC. Currently, 16 beef breed association members report registration numbers to NPLC.

The table below shows percentages of the total registered in 1965 and 2015 by breed (one-half of the breeds were not yet registered in the U. S. in 1965):

Hereford	56.0	11.0
Limousin	—	3.1
Main-Anjou	—	1.3
Red Angus	0.2	7.5
Salers	—	0.7
Santa Gertrudis	1.1	0.8
Shorthorn	3.4	2.1
Simmental	—	10.3
Texas Longhorn	—	1.3

breeds made up about 94% of the total, Continentals (all Charolais) 3%, and Brahman and Brahman influenced 3%.

In 1990 these percentages were about:

British Breeds	49%
Continentals	36%
Brahman	15%

In 2015, they were about	
British Breeds	65%
Continentals	27%
Brahman	8%

BREED	1965 Percentage	2015 Percentage
Angus	34.6	43.7
Beefmaster	—	2.5
Brahman	1.5	1.4
Brangus	0.4	3.5
Charloais	2.8	5.2
Chianina	—	1.0
Gelbvieh	—	5.2

Not shown here, but for comparison, in 2015, there were about one-third more Holsteins registered than the most numerous beef breed (Angus) and more Jerseys registered than the second most numerous beef breed (Hereford). While registration percentages may not reflect the exact picture, they should give us a good idea of the makeup of the nation’s commercial beef herd. In 1965, British

The trend toward more Continentals and Brahman/Brahman influenced through the ‘80s and ‘90s has been reversed. Who knows where we’ll go from here.

[Beef Cattle Browsing, March 2016; <http://animalscience.tamu.edu/beef-cattle-browsing-march-2016/>]

FOOD ALLERGIES – DO YOU HAVE THEM?

Does your tongue itch when you eat shrimp or nuts? Does your stomach ache when you eat dairy products? You may have food allergies... but, you might not. People often confuse food allergy with food intolerance.

Food allergy affects the immune system and can range in reaction from mild to life-threatening – even if a tiny amount of the offending food is ingested, the allergic person can have a severe reaction. Food intolerance, however, is typically related to inability to metabolize an ingredient and is usually dose specific – meaning you can eat small amounts of the offending food without a reaction. The most common food allergies are milk, egg, peanut, tree nut (walnut, cashew, etc.), fish, shellfish (shrimp, crab, etc.), soy and wheat.

Recent epidemiologic studies cited in the Journal of Allergy and Clinical Immunology suggest that nearly 4% of Americans are afflicted with food allergies, a prevalence much higher than appreciated in the past. Still, approximately 20% of the U.S. population alters their diet for a “perceived reaction”, which may or may not be food allergy.

If you suspect you have food allergy, the first thing you should do is see your doctor, says Extension Health Associate, Janet Pollard. You will likely be referred to an allergist or immunologist who specializes in such disorders. The allergist will likely perform a physical exam and ask for a detailed history. This information is extremely important, says Pollard.

Without your help in discussing past symptoms and reactions, it is very difficult for the allergist to assess the potential culprits of the problem. Once your doctor has some ideas about what may be causing the symptoms, he/she will try to diagnose food allergy with some of the following measures:

- Having you keep a written record of your diet and when you have a reaction.
- Having you participate in an elimination diet, in which certain foods are taken completely out of the diet to see if it eliminates the symptoms.
- Performing a skin test, in which small amounts of a potential allergen are placed under the skin to see if it creates a local reaction.
- Performing a double-blind food challenge, in which capsules are ingested with specific food ingredients to see if a reaction occurs – neither patient nor the person administering the test knows what is in the capsules (this eliminates psychological variables).
- Performing a blood test, which is sent to a laboratory to see if food-specific Immunoglobulin E (IgE) antibodies are present. These IgE antibodies suggest that your body thinks the food is a foreign agent and tries to fight it off, producing harmful chemicals such as histamine. Blood tests are typically expensive and used on those with severe reactions, since the other tests could result in a life-threatening reaction.

Common, mild symptoms of food allergy may include hives, swelling, itchy-red rash, eczema, itching or swelling of lips, cramps, nausea, vomiting, diarrhea, itchy-watery eyes, runny or stuffy nose, sneezing, coughing or wheezing. More severe symptoms can include shortness of breath, difficulty swallowing, tightness of chest, itching or swelling of tongue or throat, change in voice, drop in blood pressure, fainting and, the most severe reaction, anaphylactic shock. Anaphylactic shock can be fatal, either through swelling that shuts off the airway or through a dramatic drop in blood pressure.

If you are diagnosed with food allergy, it is important to learn how to manage your food allergy and to educate others. There is no cure for food allergy. The only way to manage food allergy is by strict avoidance of the offending food. To avoid the food you must read food labels and learn terminology that may be used on the label to identify said allergens; talk to your host, chef or wait staff when dining away from home; educate others about cross-contamination and how to administer medications in an emergency, including antihistamine and epinephrine.

[Texas A&M Extension Service, Family and Consumer Sciences; <http://fcs.tamu.edu>]

Cranberry Apple Coleslaw

Dressing:

- ¾ cup fat-free plain Greek yogurt
- ¼ cup light mayonnaise
- ¼ cup honey
- 2 Tbsp. apple cider vinegar

Coleslaw Mix:

- 1 small green cabbage, shredded
- 1-½ cups carrots, shredded
- 2 medium Gala apples, sliced
- ½ cup green onions sliced
- ½ cup dried cranberries

Instructions:

Wash hands and clean preparation area. Rinse all produce before shredding. In a mixing bowl, whisk together yogurt, mayonnaise, honey and vinegar until smooth. In a separate bowl, toss together the shredded cabbage, carrots, apples, green onions and cranberries. Pour dressing over cabbage mixture and toss to coat. Serve with your favorite main dish. Refrigerate coleslaw if not serving immediately.

Serves 4 - 6.

[<http://dinnertonight.tamu.edu/recipe/cranberry-apple-coleslaw/>]

SUN SAFETY IN THE TEXAS HEAT

It will soon be summer in Texas again, when the temperatures get up to three digit numbers, but it isn't just the heat that is getting to you. The sun also emits UV rays which can be harmful to the skin. Did you know that excessive exposure to the ultraviolet radiation of the sun is the most important preventable cause of all skin cancers?

Melanoma is the most serious form of skin cancer and according to the American Cancer Society it is estimated that in 2016, in the United States there will be:

- 76,380 new cases [approximately 46,870 in men and 29,510 in women]
- 10,130 deaths [about 6,750 men and 3,380 women]

This is more than a 20% increase in just the last eight years.

Don't let yourself or your family members be a part of these numbers. Learning a few things about skin safety can help you prevent it.

There are different types of UV rays that come from the sun. Some sunscreens only protect from one type. Be sure to get a sunscreen that protects from both UVA and UVB rays. Just because it is cloudy outside doesn't mean that the UV rays are blocked from reaching your skin. Like light UVA rays can go through glass, so before taking off for a car ride don't forget to put some sunscreen on. UV rays can also do damaged to your eyes so find a wide (3") brim hat and some sunglasses to protect your face as well.

Some tips on keeping the UV rays from harming you:



Apply sunscreen 20 minutes before going out in the sun – it needs to soak in before being effective. Make it a morning routine and then you'll never forget!

Apply sunscreen every two hours when in the sun – SPF 30 or higher and one that protects against both UVA and UVB rays. Remember the hat and sunglasses too!

Fill a basket by the front door with sunglasses, hats and sunscreen so, as you rush out the door, you remember take a bottle with you to reapply later as needed.

Make playing in the shade fun! During the peak hours of the day when the sun's rays are at their highest point find some fun games at <http://www.gameskidsplay.net/>.

Use extra caution around water and sand – these surfaces reflect the UV rays which can increase your chances of getting a sun burn.

The Texas A&M AgriLife Extension Service and the Cancer Prevention Research Institute of Texas encourage you and your family to practice sun-safe habits this summer and throughout the year.

[Texas A&M Extension Service, Family and Consumer Sciences; <http://fcs.tamu.edu>]

LCSWCD Updates Equipment Rental Information

Lee County Soil and Water Conservation District #359 (LCSWCD) has announced new details when renting their Equipment Rentals. Available equipment includes renovators, grain drill and seed spreader, which will help aerate and seed pastures. In renting the equipment, a landowner could increase their forage production without increasing their equipment costs.

LCSWCD Chairman, Ed Kissmann, told the Extension office rental of equipment is now handled directly through their office. The following equipment is available for rental by residents of Lee County:

- 8 foot Aerway renovator
- 10 foot no-till grain drill
- 10 foot regular grain drill
- 7 shank – 10 foot renovator/chisel plow
- 3 point seed spreaders

Rental specifications and rental rates for the equipment are slightly different between each piece of equipment. Contact the LCSWCD office for that information. Questions regarding equipment should may directed to either person:

Ed Kissmann – 979-540-8809

Betty Wolf – 979-540-6158

10 TIPS FOR CANNING FOODS AT HOME SAFELY

Canning foods at home can be a fun way to preserve an abundant harvest from your garden. However if done incorrectly home-canned foods can cause serious, even fatal, foodborne illness. Make sure the foods you preserve at home are safe for you and your family by following these recommendations:

1. **Start with a clean preparation area and the freshest foods possible.** Check jars for nicks and cracks. Make sure your equipment is clean and in good working order.

2. **Always use a pressure canner when canning low-acid foods.** This includes most vegetables (except many tomato products), seafood, poultry and meat.

3. **If using a pressure canner with a dial gauge, have it tested each year.** In fact, have your pressure canner checked to

make sure that gaskets (if present) are in good shape and that vents, safety valves and edges of the lid are clean.

4. **Always use tested recipes that have up-to-date, researched processing (canning) times.** Sources of tested recipes include the National Center for Home Food Preservation and companies that produce home canning supplies. Recipes from cookbooks, the personal internet sites or older Extension publications should not be used.

5. **Do not alter ingredients in tested recipes.** Changing the ingredients in a tested recipe can make that recipe unsafe for home food preservation.

6. **When filling jars, always use the correct headspace.** Headspace is the

space in the jar that is between the lid and the top of the food or liquid. Having too little or too much headspace can affect how the lid seals and the quality of the final product.

7. **After jars have been processed (canned), check the lids within 12 to 24 hours to make sure they are sealed.** Food from jars that did not seal should be frozen or refrigerated and eaten in a couple of days. You may also reprocess (re-can) it within 24 hours.

8. **Label lids with the name of the food, date the food was canned, and batch number (if you canned more than once that day).** That way, if you see signs of spoilage, you can identify the batch number and pay special attention to those jars.

9. **Store canned foods in a dark, cool, and dry, place.** If the food is stored in a humid place, the moisture can cause the lids to rust, leading to spoilage. Periodically check the jars for signs of spoilage.

10. **For best quality, use home-canned foods within one year.**

Strawberry Jam

with powdered pectin

5½ cups crushed strawberries (about 3 quart boxes strawberries)

1 package powdered pectin

8 cups sugar

Yield: About 9 or 10 half-pint jars

Please read "[Using Boiling Water Canners](#)" before beginning. If this is your first time canning, it is recommended that you read "[Principles of Home Canning](#)".

Procedure: [Sterilize canning jars](#) and prepare two-piece canning lids according to manufacturer's directions.

To prepare fruit. Sort and wash fully ripe strawberries; remove stems and caps. Crush berries.

To make jam. Measure crushed strawberries into a kettle. Add pectin and stir well. Place on high heat and, stirring constantly, bring quickly to a full boil with bubbles over the entire surface. Add sugar, continue stirring, and heat again to a full bubbling boil. Boil hard for 1 minute, stirring constantly. Remove from heat; skim.

Fill hot jam immediately into hot, sterile jars, leaving ¼ inch headspace. Wipe rims of jars with a dampened clean paper towel; adjust two-piece metal canning lids. Process in a Boiling Water Canner.

http://nchfp.uga.edu/how/can_07/strawberry_jam_powder.html

For additional information:

SO EASY TO PRESERVE

University of Georgia Cooperative Extension

<http://www.uga.edu/setp/>

NATIONAL CENTER FOR HOME FOOD PRESERVATION

<http://www.uga.edu/nchfp/>

[Texas A&M Extension Service, Family and Consumer Sciences; <http://fcs.tamu.edu>]

Wednesday, April 13, 2016

1:00 p.m. - 5:00 p.m.

Lincoln Community Center

1074 Main Avenue

Lincoln, TX 78948



Texas Well Owner Network

The Texas Well Owner Network (TWON) program is a free, educational training for Texas residents who depend on household wells for their water needs. TWON is for private well owners who want to become familiar with groundwater resources, septic system maintenance, well maintenance, water quality and water treatment. Private well owners are independently responsible for monitoring the quality of their wells. Essentially, they are the operators of their own water system and are responsible for ensuring that their water is safe.

Bring your well water samples:

Well owners may bring water samples to the training to be screened for nitrate, total dissolved solids (TDS) and *E. coli* bacteria for \$10. Pick up approved sample containers with instructions at the [Lee County](#) or [Bastrop County](#) Texas A&M AgriLife Extension offices. Bring your samples and payment of \$10 to the training on April 13, 2016.

Each participant will receive a free *Well Owner's Guide to Water Supply Handbook*.

Pre-register for the workshop:
twon.tamu.edu/training
or call 979.845.1461

T W O N
T E X A S
Well Owner
NETWORK

TEXAS A&M
AGRI LIFE
EXTENSION

Texas Water
Resources Institute
make every drop count



Grassfed Beef Production Conference

Thursday, May 26

Rosenthal Meats Center

Moderator – Dr. Jason Cleere

9:00 A View of the US Beef Industry from 30,000 feet

Dr. Ron Gill, Texas A&M Agrilife Extension Service

10:00 Growing Forages for Grassfed Beef

Dr. Monte Rouquette, Texas A&M Agrilife Research

11:30 Your Check-off Dollar at Work

Russell Woodward, Texas Beef Council

12:00 Lunch

Moderator – Dr. Rick Machen

1:00 Defining Natural, Grassfed and Organic Production Systems

Dr. Rick Machen, Texas A&M Agrilife Extension Service

2:00 Cattle Best Suited for Grassfed Beef

Dr. Joe Paschal, Texas A&M Agrilife Extension Service

3:00 Preventative Herd Health Management

Dr. Joe Paschal, Texas A&M Agrilife Extension Service

4:00 Adding Grass Finishing to a Cow/Calf Enterprise

Jason Van Tassell, Paniolo Cattle Co. and Parker Ranch, Hawaii

5:00 Questions & Conversations about grassfed beef

5:30 A Grassfed Prime Rib Dinner

Dr. Davey Griffin, Texas A&M AgriLife Extension Service

Low-Stress Handling Cattle for Wholesome Beef

Dr. Ron Gill, Texas A&M Agrilife Extension

Louis Pearce Pavilion

Friday, May 27

Rosenthal Meats Center

7:30 Coffee & Kolaches available

Moderator – Dr. Ron Gill, Assoc. Dept. Head, Animal Science

8:00 Fabrication – from Carcass to Retail Cuts

Drs. Davey Griffin and Dan Hale, Tx A&M AgriLife Extension Service

11:00 The Tale of Two Beefs

Hawley Poinsett, Sr. Nutrition Manager, Texas Beef Council

12:00 Lunch

Moderator – Dr. Rick Machen

1:00 Production & Marketing Grassfed Beef (Producer Panel)

Sam Keller, Hillside Beef, Fredericksburg, TX

Jason Van Tassell, Parker Ranch, Hawaii

Cody Marburger & Nichole Francis, Nolan Ryan Beef, Huntsville, TX

4:30 Adjourn

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