## Estill County Farm Scoop

### Agriculture & Natural Resources



Happy November everyone! As winter approaches, it is time to start working on sanitation in gardens and fruit orchards. Cleaning up will not only make it look nicer, but it will prevent pests and diseases from overwintering. This will help lower the pest population when spring comes around.

Also, it is that time of year to start bringing your houseplants back indoors, so they are safe from the lowering temperatures.

There will be a Farmer Tax Seminar at the Estill County Extension Office on Tuesday, November 22 at 6 p.m. Jonathan Shepherd, UK Farm Management Specialist will be our guest speaker. He will talk about the following tax topics that will help you in the upcoming months to prepare for tax season:

- W2/1099 Issues
- Farm income averaging
- Breeding Livestock vs. Raised Livestock
- Capital Gains vs. Ordinary Income
- Income Deferment
- Prepaid Expenses

If you would like to attend, please call the office at 606-723-4557 to sign up so we have the appropriate amount of materials.

The Estill County Beef Producers and Cattlemen's will hold their next monthly meeting on Thursday, November 10. Meal will be at 6:30 p.m. followed by the meeting. This months guest will be Megan Mills with Marcum & Wallace. We will need a count on those who will be eating, so please call the Extension office to sign up no later than November 7th.

As always, if you have any questions, feel free to contact me by calling the office or emailing me at emma.lee@uky.edu.

**Cooperative Extension Service** 

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**University of Kentucky** College of Agriculture, Food and Environment *Cooperative Extension Service* 

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## November 2022 Inside this issue:

- Upcoming Farmer Tax Seminar information
- Free RFID tags for Cattle Producers
- Invasive Plant Workshop
- Autumn Winds information from the National Weather Service
- Anaplasmosis in Beef Cattle

EmmaLee

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Visit us online at estill.ca.uky.edu



Disabilities accommodated with prior notification.



## Cooperative Extension will host a

# Farmer Tax Seminar

## Tuesday, November 22nd at 6 p.m.

at the Estill County Extension Office, 76 Golden Court, Irvine, KY 40336

Jonathan Shepherd, UK Farm Management specialist will be our guest speaker.

## Topics that will be covered:

- W2/1099 issues
- Farm income averaging
- Breeding livestock vs raised livestock
- Capital gains Vs. Ordinary income
- Income deferment
- Prepaid expenses

## Let us know you will be attending by calling 606-723-4557.

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Emalee

Emma Lee, County Extension Agent for Agricultue & Natural Resources

> Disabilities accommodated with prior notification.

LEXINGTON, KY 40546



#### KENTUCKY DEPARTMENT OF AGRICULTURE

### Free RFID tags available for Kentucky Cattle Producers

The Kentucky Department of Agriculture is cooperating with USDA on improving the traceability of US livestock moving interstate when animal disease events take place. Currently, all cattle 18 months or older sold at a Kentucky approved livestock market OR moving interstate must be identified to the farm of origin.

Under the proposed rule, unless specifically exempted, livestock moved interstate would have to be officially identified and accompanied by a certificate of veterinary inspection or other documentation, such as ownership statements or brand certificates. The ADT rule encourages the use of low-cost technology and specifies approved forms of official identification for each species, such as RFID ear tags for cattle.

USDA proposes that this will become a national requirement by January 1, 2023. The Kentucky State

Veterinarian Office is using part of our USDA grant and allotted RFID tags to strengthen the Animal Disease Traceability framework within our state. With this, we are now providing cattle producers with free RFID tags for use in replacement/breeding females and bulls.

In order to receive these tags it is required that a producer be assigned a national premise ID number. You can obtain your premise ID number by contacting me directly, or calling the State Veterinarian's Office where one of our staff members will assist you. Once the producer receives their tags it will be the producer's responsibility to report back to the OSV office when tags are placed in the animals. Prior to sending more tags, the "Tags Applied" form MUST be filled out with the previous tags listed accordingly. Once this is completed and received by the

Office of the State Vet additional tags can be issued to the producer.

If you would like any additional information regarding the free RFID tag program, please contact Brandie Senter or Dr. Beth Johnson with your questions or concerns.

Dr. Beth Johnson Director of Animal Health, KDA/OSV Bethc.johnson@ky.gov (502)545-6373

Brandie Senter Animal Disease Traceability Program Coordinator Brandie.Senter@ky.gov (502) 782-5903 (502)229-0862





Stop by and pick up your copy of the 2022-2023 Cook Wild Kentucky Recipe Calendar. With recipes ranging from frog legs to venison, you don't want to miss out on this calendar!

## UK to host Crop Pest Management webinar series

#### By: Haley Simpkins, Lexington, Ky.

Beginning Nov. 8, the University of Kentucky College of Agriculture, Food and Environment will host a series of five webinars covering field crop protection. Hosted through the Southern Integrated Pest Management Center, the webinars will feature UK extension specialists discussing weed science, plant pathology and entomology.

"These webinars provide the latest grain crop pest management research findings in a convenient and accessible format that is open to everyone," said Kiersten Wise, webinar presenter and extension plant pathologist. "The presenters are looking forward to providing updates on new or emerging pest management topics and making sure everyone in the agriculture industry has the latest information as they plan for 2023."

The Tuesday morning webinars will take place via Zoom at 10 a.m. EST/ 9 a.m. CST, and preregistration is required for each webinar. The webinars are open to agriculture and natural resource extension agents as well as agriculture professionals, whether they reside or work in Kentucky or outside the state.

Details and links for preregistration are as follows:

- <u>Nov. 8 -</u> Weed Control Lessons Learned From the 2022 Crop Season with J.D. Green, weed scientist https:// zoom.us/webinar/register/ WN\_4JQovXYvR76AZXp\_tSmBwg
- <u>Nov. 15 -</u> Managing Important Soilborne Diseases of Soybean in Kentucky with Carl Bradley, extension plant pathologist https://zoom.us/webinar/register/ WN\_t6D6toO8Sh2BhyoD3iw1HQ
- <u>Nov. 22</u> Implementing Defensive Shifts Against Problematic Kentucky Weeds with Travis Legleiter, weed scientist https://zoom.us/webinar/register/ WN\_QnugWPJJQUynBXDf4io9zg

### Estill County Beef Producers & Cattlemen's Meeting

The next Estill County Beef Producers meeting, followed by the Estill County Cattlemen's meeting, will be on

Thursday, November 10, 2022 at 6:30 p.m. Estill County Extension Office, 76 Golden Court, Irvine, KY 40336 Meal will be served starting at 6:30 p.m. followed by the meeting.



#### <u>Guests:</u> Megan mills with Marcum & Wallace

A meal will be provided. Let us know you will attending **NO LATER THAN NOVEMBER 7TH**. Contact the Estill County Extension Office at 606-723-4557



- <u>Dec. 6 -</u> Corn Disease Management Questions Asked in 2022 with Kiersten A. Wise, extension plant pathologist https://zoom.us/webinar/register/ WN\_KwibLTsHQY6oJjiKzURCEQ
- <u>Dec. 13 -</u> Entomological Studies in Corn and Soybeans Under Difficult Circumstances (Covid, a Tornado and Drought) in 2022 with Raul Villanueva, extension entomologist https://zoom.us/webinar/register/ WN\_3KVwBMYKQYKnxzW1K-A0-g

Participants may receive one hour per webinar in continuing education units for Certified Crop Advisers. Pesticide applicators can receive one specific continuing education unit in categories 1A and 10 per webinar. Pesticide applicators will receive December webinar credits in January 2023 that will not count toward the 2022 certification deadline. Category 12 no longer requires certification testing or CEUs.

For more information, questions or registration help, contact Jason Travis, UK agricultural extension associate, at 859-562 -2569 or email **jason.travis@uky.edu**.



### **Turkey Facts**

Ben Franklin, in a letter to his daughter, proposed the turkey as the official United States bird.

In 2012, the average American ate 16 • pounds of turkey.

• 88% of Americans surveyed by the National Turkey Federation eat turkey on Thanksgiving.

46 million turkeys are eaten each Thanksgiving, 22 million on Christmas and 19 million turkeys on Easter.

• 25,000 persons in the United States.

In 1970, 50% of all turkey consumed ٠ was during the holidays, now just 29% of all turkey consumed is during the holidays as more turkey is eaten year-round.

In 2012, turkey was the #4 protein ٠ choice for American consumers behind chicken, beef and pork

٠ Turkey hens are usually sold as whole birds. Toms are processed into turkey sausage, turkey franks, tenderloins, cutlets and deli meats.

The average weight of a turkey pur-٠ chased at Thanksgiving is 15 pounds.

٠ The heaviest turkey ever raised was 86 pounds, about the size of a large dog.

٠ A 15 pound turkey usually has about 70 percent white meat and 30 percent dark meat.

• The wild turkey is native to northern Mexico and the eastern United States.

- The male turkey is called a tom. ٠
- The female turkey is called a hen. •

The turkey was domesticated in Mexi-• co and brought to Europe in the 16th century.

• Tom turkeys have beards. That is comprised of black, hair-like feathers on their breast.

Turkeys can see movement almost 100 yards away.

Turkeys lived almost ten million years • ago.

Baby turkeys are called poults and are • tan and brown.

٠ Turkey eggs are tan with brown specks and are larger than chicken eggs.

It takes 75-80 pounds of feed to raise a 30 pound tom turkey.

Gobbling turkeys can be heard a mile

away on a quiet day.

• Minnesota, North Carolina, Arkansas, Missouri, Virginia, Indiana, California, South Carolina, Pennsylvania and Ohio were the leading producers of turkeys in 2011-2012.

• Minnesota raised 46 million turkeys in 2012.

٠ Illinois farmers produce close to 3 million turkeys each year.

A 16 week old turkey is called a fryer. A 5 to 7 month old turkey is called a young roaster and a yearling is a year old. Any The turkey industry employs 20,000 to turkey 15 months or older is called mature.

> ٠ Turkeys do not really have ears like ours, but they have very good hearing.

Turkeys can see in color. •

• A large group of turkeys is called a flock.

Turkeys do not see well at night. ٠

A domesticated male turkey can reach a weight of 30 pounds within 18 weeks after hatching.

٠ Turkeys are related to pheasants.

• Commercially raised turkeys cannot fly.

• Wild turkeys spend the night in trees. They prefer oak trees.

Wild turkeys were almost wiped out in ٠ the early 1900's. Today there are wild turkeys in every state except Alaska.

Wild turkeys can fly for short distanc-• es up to 55 mph and can run 20 mph.

Turkeys are believed to have been • brought to Britain in 1526 by Yorkshire man William Strickland. He acquired six turkeys from American Indian traders and sold them for tuppence in Bristol.

Henry VIII was the first English King to enjoy turkey and Edward VII made turkey eating fashionable at Christmas.

200 years ago in England, turkeys were walked to market in herds. They wore booties to protect their feet. Turkeys were also walked to market in the United States.

Turkey breeding has caused turkey ٠ breasts to grow so large that the turkeys fall over.

• June is National Turkey Lover's Month.

Since 1947, the National Turkey Fed-٠ eration has presented a live turkey and two dressed turkeys to the President. The President does not eat the live turkey. He "pardons" it and allows it to live out its days on a historical farm.

The five most popular ways to serve ٠ leftover turkey are in a sandwich, stew, chili or soup, casseroles and as a burger.

• Turkey is low in fat and high in protein.

• Turkey has more protein than chicken or beef.

• White meat has fewer calories and less fat than dark meat.

• Turkeys will have 3,500 feathers at maturity.

٠ Most turkey feathers are composted.

Turkey feathers were used to stabilize • arrows and adorn ceremonial dress, and the spurs on the legs of wild tom turkeys were used as projectiles on arrowheads.

Turkey skins can be tanned and used ٠ to make cowboy boots and belts.

The caruncle is a red-pink fleshy ٠ growth on the head and upper neck of the turkey.

٠ Turkeys have a long, red, fleshy growth called the snood from the base of the beak that hangs down over the beak. The bright red fleshy growth under a turkey's throat is called a wattle.

The beard is a lock of hair found on ٠ the chest of the male turkey.

• Giblets are the heart, liver, and gizzard of a poultry carcass. Although often packaged with them, the neck of the bird is not a giblet.

Turkey eggs hatch in 28 days.

The Native Americans hunted wild turkey for its sweet, juicy meat as early as 1000 A.D.

٠ There are a number of towns in the United States named after the holiday's traditional main course. Turkey, Texas, was the most populous in 2005, with 492 residents; followed by Turkey Creek, Louisiana (357); and Turkey, North Carolina (269). There also are 9 townships around the country named "Turkey,"3 in Kansas.

Sources: National Turkey Federation, U.S.D.A., United States Census Bureau, Minnesota Turkey Growers Association, British Turkey Information Service, Canadian Turkey Marketing Association



## Autumn Winds



"Those that can bend with the wind will weather the storm." -Unknown.

You could feel the breeze beginning to pick up as autumn progresses. In fact, winds increase across a large portion of the United States during the autumn months. To our north, in the Great Lakes region, strong winds lead to dangerous lake conditions known as the "Gales of November". But why does the wind seem to get stronger when the temperature drops? According to meteorologist John Wheeler of WDAY television in Fargo, during the autumn, winter, and spring, the absence of sunlight in the higher latitudes makes it extremely cold, while the tropics remain warm and...well...tropical. This enhanced temperature gradient across the United States leads to a stronger Jet Stream and larger air pressure differences between weather systems, both of which lead to more air movement in general.

These more noticeable differences in air masses during the autumn months may also lead to stronger frontal passages and storm systems. Multiple strong wind events during the autumn months have caused damage, injuries, and even deaths across the Commonwealth. While weather reporting stations, such as the Kentucky Mesonet, measure wind speeds and gusts accurately, you can also estimate the wind speeds you are encountering by using the Beaufort Wind Scale.

Given this scale, it is also understandable why the National Weather Service sets a threshold of 58 mph (50 kts) for severe thunderstorm warnings, as this is the speed at which damage is most likely to occur.

You can help prepare for the strong winds ahead and hopefully prevent damage to your property, or worse, by taking the following steps:

- Trim tree branches away from your house and power lines.
- Secure loose gutters and shutters.
- Identify an interior room of your house, such as a basement or interior bathroom, that you can take shelter in during high wind warnings.
- If you live in a mobile home, identify a sturdy building you can go to if NWS issues a high wind or severe thunderstorm warning.
- Charge batteries of all essential items such as cell phones and booster packs, weather radios and power tools such as a reciprocating saw, which you might need to clear debris.
- Update your emergency kit and be sure to include enough food and water to last for 3 days for each person in your home. Acquire flash-lights, spare batteries, and generator fuel if you use backup generators.
- Make a list of items outside your home you will need to tie down or put away so that they don't blow away or fly through a window. When NWS issues a high wind or severe thunderstorm watch, immediately secure these items to avoid damage or injury.

Beaufort	MPH Range Average		Terminology	Description
0	0	0	Calm	Calm. Smoke rises vertically.
1	1-3	2	Light air	Wind motion visible in smoke.
2	4-7	6	Light breeze	Wind felt on exposed skin. Leaves rustle.
3	8-12	11	Gentle breeze	Leaves and smaller twigs in constant motion.
4	13-18	15	Moderate breeze	Dust and loose paper is raised. Small branches begin to move.
5	19-24	22	Fresh breeze	Smaller trees sway.
6	25-31	27	Strong breeze	Large branches in motion. Whistling heard in overhead wires. Umbrella use becomes difficult.
7	32-38	35	Near gale	Whole trees in motion. Some difficulty when walking into the wind.
8	39-46	42	Gale	Twigs broken from trees. Cars veer on road.
9	47-54	50	Severe gale	Light structure damage.
10	55-63	60	Storm	Trees uprooted. Considerable structural damage.
11	64-73	70	Violent storm	Widespread structural damage.
12	74-95	90	Hurricane	Considerable and widespread damage to structures.

#### **Beaufort Wind Chart - Estimating Winds Speeds**

## **Anaplasmosis in Beef Cattle**

Michelle Arnold, UK Veterinary Diagnostic Laboratory

naplasmosis is a disease caused by Anaplasma marginale, an organism that invades cattle red blood cells (RBCs), resulting in severe anemia, weight loss, fever, abortion, and death in adult cattle. Anaplasmosis is considered a "tickborne" disease because ticks transmit the organism when feeding on cattle. However, spread of this disease can be by any method that moves fresh blood from infected to susceptible cattle. In addition to ticks, the Anaplasma organism may be spread by biting insects (mosquitoes, horse flies, stable flies) or blood-contaminated tools such as dehorners, ear taggers, castration tools, and implant guns used without disinfection between animals. A very common method of transmission is using the same hypodermic needle on multiple animals when administering vaccines to the herd. Transmission may also be from cow to calf during gestation.

Once infected, there is a four to eight week incubation period before the animal develops symptoms. Infected RBCs (Figure 1) are removed from circulation by the immune system, leaving an abnormally low number of RBCs in the bloodstream, a condition known as "anemia." Without adequate RBCs, major organs are deprived of the oxygen needed to function properly. When 40 to 50 percent of RBCs are removed, symptoms of disease begin to develop. Infected cattle will show signs of weakness, lagging behind the herd, staggering, and rapid breathing, sometimes with foam coming from the mouth. Affected cattle have a fever, quit eating, and tend to rapidly lose weight. Most become very aggressive due to lack of oxygen to the brain. Mucous membranes will appear pale early in the course of disease and progressively turn yellow in color due to jaundice. (Figure 2). Death can be sudden in cattle showing signs of disease, especially with exercise or stress. In many instances, cattle are found dead with no prior symptoms. Multiple adult animals in a herd may die within a short time span (one to two weeks). In Kentucky, the disease affects adult cattle in the fall of the year with nearly all cases occurring from late August through the first two weeks of November.

Notall cattle will show signs of disease when infected. Younger cattle, especially less than six months old, rarely develop anemia due to their rapid and active production of new RBCs. Anaplasmosis in animals from six months to two years of age may be misdiagnosed as pneumonia because symptoms of both conditions include fever and increased respiratory rate. Older animals (two years and older) are at highest risk for disease and death, but some individuals are able to mount an effective immune response quickly without obvious signs of sickness.

If an animal (regardless of age) is infected with *Anaplasma marginale* and survives, that animal will become a "carrier" of the organism for life. As carriers, they are never "sick" due to anaplasmosis again but serve as reservoirs of infection for other, naïve (uninfected) animals.

Figure 1. Anaplasma marginale organisms (small purple dots-see arrow) in the red blood cells (larger pink circles). Photo:

Bulls that survive the infection may be infertile for up to a year, and pregnant cows frequently abort during recovery from infection. Recovery takes at least two to three months to rebuild RBCs and regain lost weight.

**Figure 2.** Jaundice (yellow color to tissues) is a typical finding in cases of Anaplasmosis at necropsy. Photo: UKVDL





UKVDL



#### **Treatment Options**

Treatment with the antibiotic class of tetracyclines is essential for survival if showing overt symptoms of disease. The recommended dose is "extra-label" and must be given under veterinary direction. A single injection of long-acting oxytetracycline (for example, LA-200°, LA-300°) at 22 mg/kg of body weight (BW) or 10 mg/ lb BW in the muscle or under the skin will often stop the progression of anemia by slowing replication of the Anaplasma organism, allowing the immune system to take over and save the animal. However, be aware that severely affected cattle may die due to stress when walked to the barn or going through the working chute for treatment. When anaplasmosis is diagnosed in a herd, it is likely that other adult herd mates are in the incubation phase of the illness. For this reason, it is recommended to treat all adult cattle in the herd with injectable oxytetracycline then introduce chlortetracycline (CTC) at the control dose (0.5-2 mg CTC/lb BW/ head/day) in the feed or as a free choice CTC-medicated mineral to control active infection.

#### **Control of Active Infection**

Preventing infection with Anaplasma marginale is very difficult due to the large number of infected herds and the ease with which the organism is transmitted. The term "control" is used when infection already exists. The goal of a control program is to minimize the severe symptoms of disease and production losses when the herd is first exposed to the Anaplasma organism and as it spreads within the herd. The disease will finally reach a point of "endemic stability," meaning nearly all of the animals in the herd have been exposed to the disease and have developed protective immunity to its effects.

Feeding chlortetracycline (CTC) at the control dose of 0.5 mg to 2 mg/lb BW per head per day to beef cattle over 700 pounds throughout the vector or fly season (May through November) is one effective control option. Recent research has found it is equally effective to "pulse feed" CTC compared to offering CTC continuously for control of the disease. To pulse feed CTC, offer it for 30 days, take a 30-day break, then offer CTC again

for the next 30 days and so on. In order to obtain CTC, a producer must have a written Veterinary Feed Directive (VFD) from a licensed veterinarian to present to the feed store before purchase of the product. FDA states that "once a veterinarian has determined that anaplasmosis infection exists within a herd, whether or not clinical signs are apparent yet, he/ she may write a VFD to direct the use of CTC for controlling the progression of the disease in that herd." FDA leaves decisions regarding herd infection status and length of time to feed CTC to the discretion of the veterinarian. A VFD order can be issued for a maximum of 180 days of feeding. If needed for a longer period of time, a new VFD order must be written. On the actual VFD form for CTC, the options are limited depending on how the drug will be offered. For example, if a free choice medicated mineral is desired, the veterinarian must select the #5 option (Figure 3) and one of the four FDA- approved concentrations. Alternatively, hand feeding CTC (for example, Aureomycin<sup>®</sup>) daily in feed to deliver 0.5 mg/lb BW/head/day will also control active infection (Figure 3, option #4). Using CTC or any feed additive in a manner not stated on the label is illegal and strictly prohibited for producers, veterinarians, and nutritionists. Remember, feeding CTC is ineffective if the animals are not consuming sufficient amounts, so intake should be monitored. Even when feeding CTC throughout the vector season, some individual animals may still become infected and die if they do not eat enough. Conversely, carriers that eat a consistent, high dose of at least 2 mg CTC/lb BW/day over a prolonged period of time (greater than 60 days) may completely clear the Anaplasma organism, a process known as "chemosterilization." Cleared carriers lose their protective immunity and are susceptible to re-infection and sickness/ death in subsequent years. Attempting to clear the organism or eradicate the disease is not necessary except for high value seedstock that require a negative test result for international movement.

Vaccination is another potential control method, especially if feeding CTC is not an option. Kentucky is among the states approved by the USDA for sale of the anaplasmosis vaccine marketed by **Figure 3.** Example VFD Form for Feeding CTC

#### □ 4. Beef Cattle (over 700 lb):

Control of active infection of anaplasmosis caused by *Anaplasma marginale* susceptible to chlortetracycline

Drug Concentration:

\_\_\_\_\_ g/ton (to provide 0.5 mg/lb body weight/day)

Duration of Feeding: \_\_\_\_\_ days

#### 5. Beef and Non-lactating

**Dairy Cattle:** As an aid in control of active infection of anaplasmosis caused by *Anaplasma marginale* susceptible to chlortetracycline when delivered in a free-choice feed.

Drug Concentration:

- 8000 g/ton

   (to provide 0.5 to 2.0 mg/lb
   body weight/day)
   Must use a FDA-approved
   proprietary formulation.
- G000 g/ton

   (to provide 0.5 to 2.0 mg/lb
   body weight/day)
   Must use a FDA-approved
   proprietary formulation or
   formulation in 21 CFR 558.128(e)(6).
- 5000 g/ton

   (to provide 0.5 to 2.0 mg/lb
   body weight/day)
   Must use a FDA-approved
   proprietary formulation.
- 700 g/ton (to provide 0.5 to 2.0 mg/lb body weight/day) Must use a FDA-approved proprietary formulation.

Duration of Feeding: \_\_\_\_\_ days

University Products LLC of Baton Rouge, LA. Vaccination should keep animals from experiencing severe sickness and death but does not prevent infection and still allows development of the carrier state. The vaccine can be used safely during an outbreak and has been used in cows in all stages of pregnancy with no problems reported. The recommendation is a two-dose regimen given four weeks apart with annual re-vaccination required. Immunity should develop within seven to ten days of the second dose, according to the manufacturer. Vaccination should ideally begin with yearlings. More information may be found at: http://www.anaplasmosis.com/ home.html.

A third option is to determine the disease status of the herd and segregate them according to test results prior to implementing control measures. Animals that test positive on the Anaplasmosis cELISA blood test will not need vaccination nor CTC therapy since "positive" means they already have protective antibodies. Vaccine or CTC therapy can then be targeted for use in only the individuals who test negative for antibodies. Remember, any newly purchased cattle from areas of the U.S. without anaplasmosis are at high risk for disease. New cattle additions should be tested to determine antibody status and, if negative, treated with CTC or vaccinated prior to joining the herd. Consult your veterinarian for further information about testing and disease control recommendations for your area.

#### Diagnosis

If an animal is found dead and no more than 24 hours (12 hours preferred) have passed since the time of death, the animal can be submitted to a veterinary diagnostic laboratory for postmortem evaluation, or a veterinarian may perform the evaluation in the field to determine the cause of death. If an animal is alive and showing signs consistent with anaplasmosis, it is best to submit two tubes of blood, one collected in a purple top tube for whole blood analysis and one in a red top tube for serum testing. Whole blood is needed for a "complete blood count (CBC) with differential" in order to assess the degree of anemia and to possibly identify the organism within the RBCs. Serum, the straw-colored fluid remaining after blood is allowed to clot, is used for the Anaplasmosis cELISA antibody detection test. A positive result indicates that the animal is infected with the organism and that antibodies are being produced against it. Be aware that a negative result using the serum test may be incorrect (a "false negative") early in the disease process. This serum test can be run on the same blood sample submitted for the bovine pregnancy test. Samples should be collected and transported to the laboratory as soon as possible (overnight ship with cold packs). Please visit the UK Veterinary Diagnostic Laboratory website (www.vdl.uky.edu) for additional information.

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tles nooqseət 🗸 Кәиоч 2 teaspoons Kentucky preteum noii**O znooqzast ½ f** vinegar 2 tablespoons balsamic

lio evilo **snooqseldet** 2/ S Dressing: 'need muibem l stuniew beqqoha 1 medium red apple, səldmurə əsəəhə etə quə 🎶 🗚 cup dried cranberries doeniqs **equo 2/1 S** 4 teaspoons lemon juice 5 cups torn leaf lettuce

cheese and walnuts. Serve immediately. Sprinkle salad with cranberries, feta

Yield: 8, 1 cup servings

3 g protein. 12 g carbohydrates, 3 g fiber, 7 g sugar, , muibos pm 042, tet faz, 240 mg soli tet p 8 Nutritional Analysis: 130 calories,

lettuce mixture and **toss** to coat. mustard, honey and salt; pour over the olive oil, balsamic vinegar, Dijon Prepare dressing by whisking together bowl and add to lettuce mixture. lleme e ni eoiu ( nomel ntiw eree in a small leaves in a large salad bowl. Mix apples Combine leaf lettuce and spinach

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