



Inside this issue:

Handling a Re-called Food	2
Insight Summit Conference	2
Muscular Steatosis	2
Yellow Split Peas	3
Kohlrabi	3
Food Science in Action	3
Ham Facts	4
Safe Egg Nog	4



Now on Facebook, Twitter and Pinterest!

- On Facebook—
www.facebook.com/KSREfoodie
- On Twitter—
[@KSREfoodie](https://twitter.com/KSREfoodie)
- On Pinterest—
www.pinterest.com/ksrefoodie/



Produce Safety Challenges



Since 2011, more than 20 foodborne illness outbreaks have occurred from North American produce. The foods involved were cantaloupe, romaine lettuce, cucumbers, frozen vegetables and others. In 2018 alone, romaine lettuce has been linked to two large recalls. This is costly not only in illnesses and unfortunate deaths, but complete disruption in the supply chain.

Produce safety is an ongoing challenge. Safe potable water is critical for growing produce, but also in harvest and pro-

cessing. If water is high in mineral deposits, it can cause pathogen survival. Soil residue also impacts cleanliness and sanitation.

Water temperature will change the sanitizer stability and efficacy. If water is too cold, the sanitizer will not work properly. If water is too hot, sanitizers can vaporize and release toxic gases. Produce quality can also be affected which can reduce shelf life. The acidity or pH of water must also be monitored.

Contact time of sanitizers and disinfectants will dictate the effectiveness. If left on too long, off flavors will linger and can become a chemical hazard.

The produce surface texture can trap bacteria or make them difficult to remove soil and debris. Bruises and other damage also lead to ineffective cleaning.

Learn more at <https://bit.ly/2rAy36g>.

Kansas Corn Education

Kansas Corn is supporting education by providing FREE supplies and/or funding for classrooms or events. These materials are available to teachers and educational coordinators in Kansas.

These educational materials are designed to boost STEM education. They can provide education in K-12 schools, Ag Day events, fund guest speakers for your event, and offer lab supplies.

Learn more and request materials at <https://kscorn.com/request-materials/>.



Handling a Recalled Food

Food recalls happen almost daily and many do not get a lot of publicity. In a majority of recalls, it is the manufacturer that issues a voluntary recall.

Manufacturers will work with the FDA or USDA to help determine the reason for the recall and to fix the issue. If food-borne illnesses have occurred, the CDC and

state health departments will also be involved.

As consumers, it is important to pay attention to recalls to eliminate the chance of getting sick. Recall announcements give specific information about the food recall including the type of food, brand, package size, date codes, manufacturer codes, shelf life

dates, distribution locations, and other pertinent information.

If you have a recalled food, take it back to where it was purchased for a refund, or throw it away. Do not take the chance of eating it or feeding it to animals.

Learn more at www.foodsafety.gov/recalls/index.html.



To report a problem with food, see www.ksre.k-state.edu/foodsafety/topics/microorganisms.html for contact information.

Insight Summit Conference

For details and registration, go to <https://ruralengagement.org/insight-summit/>

Do you have a story to tell? Need help with social media and networking? The Center for Rural Enterprise Engagement is offering a two day conference to help you!

This conference will focus on a variety of communication platforms such as Facebook, E-newsletters, Instagram, creating visual content, and much more. Early bird registration is now open for

\$199! After January 1, 2019, the cost is \$279.

The Summit is scheduled for February 12 & 13, 2019 at the KSU Alumni Center in Manhattan, KS.

What is Muscular Steatosis?

What looks like a highly marbled portion of meat, is actually a condition known as muscular steatosis. Other terms include "steatosis," "callous," "calloused lean," "calloused ribeye," "callus," or "woody callused." It occurs when muscle damage or nerve degeneration happens and fatty tissue permeates into the muscle tissue. In extreme cases, the fat can completely take over the muscle and become solid fat.

This condition most often occurs because the animal was injured at some point in its life. Other sources of this condition include vascular abnormalities, biopsy locations, or when animals rear up on their hind legs.

While it is still safe to eat, the quality will be very poor and tough.

Sources: Dr. Liz Boyle and Dr. Terry Houser, K-State Research and Extension Meat Specialists; <https://meat.tamu.edu/2013/05/06/muscular-steatosis/>



Photo courtesy Anna Schremmer, Phillips-Rooks District FCS Agent

Using Yellow Split Peas



Sources:

<https://bit.ly/2zGS2E1>

<https://bit.ly/2RDxsqY>

<https://northernpulse.com/recipes>

<http://foodhero.org/recipes/categories/141>

Yellow split peas are pulses which are the edible dried seed of legume crops. The word "pulse" comes from the Latin word "puls" which means thick soup or potage. Beside split peas, pulses also include dry beans, lentils, and chickpeas and have virtually no fat content. They are, however, high in fiber, protein and complex carbohydrates.

For those on gluten free diets, pulses are beneficial. Many products are now made with pulse foods such as yellow and green pea flour. For diabetics, pulses are beneficial for blood glucose management and have a lower glycemic index. For vegetarians, pulses have eight essential amino acids which offers beneficial protein quality.

Split peas are easy to prepare. No overnight soaking is needed. Heat two cups water for each cup of dry split peas. Simmer for 30 minutes to desired tenderness. Add them to chili, spaghetti sauce, soup, salsa, hummus or in many other dishes.



Give Kohlrabi a Taste!

It looks like a turnip or even a mini-cabbage, but it's not! It's kohlrabi! The flavor is a mix of cucumber and mild broccoli. The texture is crunchy and juicy like an apple. This fat free, cholesterol free, low sodium, high

fiber and high in vitamin C vegetable can be eaten raw or cooked.

Kohlrabi is German for "cabbage turnip". It is a cousin to cole crops such as broccoli, cauliflower, kale and mustard. It con-

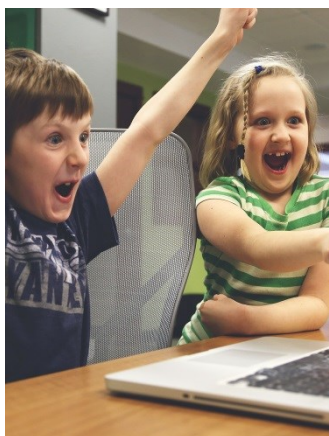
tains glucosinolates, which may help fight cancer. A one cup serving contains 100 percent daily amount of vitamin C which helps the body easily absorb iron.

Source: <https://bit.ly/2LdIfKM>



Kohlrabi is either purple, white, or light green. The leaves are also edible.

www.k-state.edu/hort-judging/vegetables-herbs/kohlrabi.html



Learn about how Food Science Engages Students at <https://bit.ly/2ry6Tgg>.

Food Science in Action Competition

The Institute of Food Technologists (IFT) is sponsoring the fourth annual competition for students to show off their video skills and creativity in the STEM fields. The theme for the 2019 competition is "Teaching and Learning Science Through Food."

This competition is open to anyone and does not require membership to IFT. Students create a 1- to 5-minute video to teach viewers about an aspect of food science. The video must be detailed and include a materials and equipment list so viewers can easily repeat the project at home or school. Scientific accuracy is important, so attention to detail is critical. This is very competitive and all submissions will receive constructive feedback. Video submissions are due April 8, 2019.

Learn more at www.ift.org/Knowledge-Center/Learn-About-Food-Science/Food-Science-in-Action.aspx.

Knowledge for Life

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

K-State Research and Extension is an equal opportunity provider and employer. Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, as amended. Kansas State University, County Extension Councils, Extension Districts, and United States Department of Agriculture Cooperating, Ernie Minton, Interim Director.



Karen Blakeslee, M.S.



On the Web at
www.rrc.ksu.edu



Carving Up Ham Facts



Spiral cut ham. Photo: USDA Flickr

From a simple sandwich, to the star of a buffet table, ham is a popular choice for many meals. The choices for ham include fresh, cook-before-eating, cooked, picnic, and country types. So, each type of ham has its own storage and cooking times.

Ham comes from the leg of the pork animal. Fresh ham is uncured and will be labeled "fresh" in the product name. They must be cooked before eating and will have a pale pink or beige color, like a pork roast. Cured

ham or cured-and-smoked ham will have a deep rose or pink color. Country ham and prosciutto will have a pink to mahogany color. These can be eaten cold or heated.

The estimated amount per serving to buy is:

- 1/4–1/3 pound per serving of boneless ham
- 1/3-1/2 pound per serving of bone-in ham

Reheat cooked ham in the oven at 325°F to an internal temperature of 140°F as measured by a thermometer. A bone-in spiral ham will take about 10-18 minutes per pound.

For more information on ham, see this USDA publication entitled *Ham and Food Safety* at <https://bit.ly/2zPxfPi>.

Cheers to Safe Egg Nog!

The star beverage for many holiday parties is egg nog. This is a drink that dates back to the 13th century and there are many variations.



Photo: USDA/ARS

To reduce the chance of giving the gift of food-borne illness, make a

cooked egg base. This is done by mixing the eggs and half the

milk and gently heat to an internal temperature of 160°F. The mixture should coat a metal spoon. Remove from heat and chill the base before adding other ingredients. Then, say cheers for a safe holiday treat!

For a recipe, see www.incredibleegg.org/recipe/classic-cooked-eggnog/. Learn more at <https://eggsafety.org/national-eggnog-month-make-safely/>.