



**The League of Women Voters® of Dane County**

**General Meeting and Issues Forum**

Wednesday, **October 8, 2014**, 7 pm

## **AGRICULTURE –**

### **Today's Research, Tomorrow's Tools**

**Heidi Zoerb**, Assistant Dean for External Relations and Advancement  
**College of Agriculture and Life Sciences, UW-Madison**

**Kathleen Glass, Ph.D.**, Associate Director  
Food Research Institute and Applied Food Safety  
**College of Agriculture and Life Sciences, UW-Madison**

The League is pleased to honor the College of Agriculture and Life Sciences (CALs), UW-Madison, on its **125<sup>th</sup> Anniversary**. CALs is a land grant college. Agricultural research by public universities began in 1862 when the Morrill Act established land grant universities across the United States. Much of the basic research on agriculture was developed through these universities with federal and state government funding.

In June 2014 the National LWV Convention adopted updated Positions on Agriculture policies. LWVDC Unit meetings will discuss these positions in light of the research conducted in our own backyard.

October Program Committee: Mary Bean and Caryl Terrell

**Study Materials (attached):**

1. LWVUS Agriculture Position (adopted June 2014) and related League State and Dane County Positions.
2. Taking ACTION using Positions from one or more Levels of LWV and sample of LWVWI Positions
3. LWVDC Positions Related to Agricultural Policies at other Levels of LWV
4. Bios of Speakers and Background on the College of Agriculture and Life Sciences and the Food Research Institute, UW-Madison
5. Kathy Glass - Working with Companies to Safeguard Foods, Oct. 21, 2009

6. Kathy Glass – Get Creative About Food Safety, 2010 GROW magazine

7. Additional Suggested Readings for the Inquisitive League Member

8. *To learn more about the role of Agriculture in Dane County, see:*

<http://dane.uwex.edu/files/2010/05/ag-impact-broch-Dane-Co-1.pdf>

### **Discussion Questions:**

LWVDC Members are asked to respond to these questions and either (a) share comments during the October Unit discussion groups or (b) submit comments directly to the October Program Committee Mary Bean at: [marybean@charter.net](mailto:marybean@charter.net) with subject line - LWVDC Ag

#### **1. Economic Health of the Agricultural Sector (Paragraphs 1-4)**

**How do the LWVUS Federal Agricultural Policies promote increased good production management practices and increased protections for the Dane County local economy and environmental resources?**

#### **2. Animal Management and Aquaculture (Par. 4 & 5)**

**Considering the many middle handlers and transporters that food products travel through in the journey from farm to table, how do these LWV policies promote sufficient yet safe supplies of food for the US and also for selling abroad to the whole world?**

#### **3. Research and Development (Par. 8)**

**a. Discuss the comments of our speakers on the role of the College of Agricultural and Life Sciences. What impressed you? What surprised you?**

**b. How do the product development and new food safety testing and labeling goals protect you and the younger generations?**

#### **4. Role of the League**

**a. Are the new policies comprehensive enough that the public would benefit from a consumer education campaign by LWVDC?**

**b. Consider how the LWV could partner with government agencies and research groups such as UW CALS to further League's state and local Agricultural goals?**

# **LWVUS Position on Federal Agriculture Policies**

## **Statement of Position on Federal Agriculture Policies**

*Adopted by the 2014 National LWV Convention Delegates*

**Economic Health of the Agricultural Sector:** The League believes that government should provide financial support for agriculture that includes disaster assistance, crop insurance, need-based loans and incentives to adopt best management practices. Support should be extended to specialty crops, such as fruits, vegetables and nuts, to new production methods, such as organic, hydroponic, and urban practices, and to farms that supply local and regional markets.

Subsidized crop yield insurance should be linked to implementation of best management practices with the subsidy denied for marginal or environmentally sensitive land. The premium subsidy for crop insurance should be available for a wide range of crops, such as fruits, vegetables and specialty crops. Government should limit the amount of the premium subsidy received by larger farms.

The League supports policies that increase competition in agricultural markets. Antitrust laws should be enforced to ensure competitive agricultural markets. Alternative marketing systems such as regional hub markets, farmers' markets and farmer cooperatives should be promoted.

**Animal Management and Aquaculture:** Clean air and water regulations should apply to all animal and aquaculture production and processing facilities, and not just to the very large confined animal feeding operations (CAFOs). Such regulations should be designed in a manner that takes into account environmentally sound technologies and the scale of the operation being regulated. Small size operations should not be granted automatic exemption from regulation.

The League believes that government regulatory agencies dealing with animal and aquaculture production should have adequate authority and funding to 1) enforce regulations and 2) gather information that supports monitoring the impacts of all animal feeding and aquaculture operations on human and animal health and the environment.

**Research and Development:** Government should fund basic research related to agriculture. Government funded research should also address the impact of new technologies on human health and the environment prior to widespread adoption of products developed with such technologies. Assessment of products developed with new technologies should be conducted as transparently as possible, while respecting intellectual property rights. Research should be funded to support the continuation of diversified and sustainable agricultural systems, such as seed banking and promoting and preserving genetic diversity.

**Food Safety:** To provide adequate safety of our food supply, government should:

- Clarify and enforce pre-market testing requirements for foods and food additives developed using any new chemical technology, such as genetic engineering or nanotechnology;
- Require developers to monitor all such new food products developed after releasing to the market;
- Require developers of such new food products to provide data and other materials to independent third parties for pre- and post-marketing safety assessment;
- Fund independent third party risk assessment examining how long term and multiple exposures to such new foods affect human health and the environment;
- Withdraw marketing approval and require recall if such products are shown to be unsafe;
- Require post-market monitoring of human health and environmental impacts for pharmaceutical applications used in animal and aquaculture production;
- Limit use of antibiotics in animal production to the treatment of disease;
- Promote crop management practices that decrease dependency on added chemicals; and
- Fund, employ and train sufficient personnel for assessment and compliance functions of regulatory agencies.

**Food Labeling:** The League supports government developing and requiring more informative and standardized definitions on product labeling. Food labeling and advertising should display only approved health and safety claims and an accurate representation of the required ingredient and nutrition lists. The League supports consumer education about labeling of foods developed using any new technology.

## **Taking ACTION using Positions from One or More Levels of LWV**

The National LWV Convention 2014 adopted the Federal Agriculture Policies position we are examining this month.

Local League Action is usually based on Local League positions. However Local Actions can also be based on positions of the LWVUS or LWVWI or a combination of positions at all three levels.

When considering an action based in part on a position of another level of the League of Women Voters organization, the LWVDC Board consults with the LWVWI Board before taking action that would affect the state or national levels.

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### **A Sampling of LWVWI Positions which pertain to Agriculture in one way or another:**

#### **Natural Resources:**

##### **Standards & Enforcement**

###### **Support of:**

The right of lower levels of government to set and enforce stricter standards if they choose.

An enforcement procedure which allows the federal level to step in if state or regional agencies fail to act.

#### **Energy, Climate change**

Using Federal leadership to adopt nationwide climate change pollutant reductions of at least 20% by 2020 and 80% by 2050, the levels of reductions of CO2 from the 1990 level that United Nations scientists say are needed.

Providing assistance to those harshly affected by climate change, especially low-income individuals and families.

#### **Water (adopted May 2014)**

Protecting water quality and quantity through wastewater and stormwater standards and management for both point and non-point sources.

See several other LWVWI positions under Natural Resources: Land; Solid Waste Management.

**Pesticides** See all positions under Pesticides.

#### **Great Lakes Ecosystem Positions in part**

##### **I. Protective Measures:**

(D) Protect the quality of the air and waters of the ecosystem by strict adherence to agricultural, industrial, residential, environmental, and commercial zoning regulations that prohibit the introduction of toxic or polluting discharges or detrimental land use techniques within the Basin.

(F.) Strengthen upstream land management to eliminate sources of siltation and pollution.

##### **II. Threats to the Ecosystem –**

###### **Opposition to**

(A) Inefficient or excessive water uses. Proposals for new or increased withdrawals within the Basin, e.g. for agricultural or municipal uses, should be carefully evaluated before being permitted. Withdrawals should be strictly monitored to assure no net loss to the ecosystem.

# **LWVDC Positions related to Agricultural Policies at Other Levels of LWV**

## **A Sampling of Local Positions**

### **GOVERNMENT RESPONSIBILITIES AND PROCEDURES**

#### **A. Local Government Relationships within Dane County**

##### **Support of:**

- 1. County responsibility for housing, solid waste, health and multimodal transportation that includes airports.**

### **SOCIAL POLICY**

#### **A. Health Care**

- 1. A County-wide health department, either single county or city/county to provide:
  - a. Retail food store inspection, environmental protection services and communicable and non-communicable disease services guided by state standard.****

### **NATURAL RESOURCES**

#### **A. Land Use Planning in Dane County**

##### **Support of:**

##### **1. Protecting Natural Resources**

**The League supports policies and practices that:**

- a. Conserve in permanent open spaces significant natural resources: wetlands, forests, wildlife, farmlands, both the quality and quantity of ground water and will reduce flooding problems.**

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- c. Acquire and preserve wetlands and adjacent uplands and shoreline along lakes, streams, creeks, their headwaters and springs, as well as woodland areas and areas of significant topography.**

##### **3. Outlying Areas or Rural, Non-Farm Areas**

- a. Reduce urban sprawl through buffer zones between communities and land-use districts.**

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- f. Restoration of upland prairies, woodlands, and wetlands.**

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- j. Prohibiting non-farm development in wetlands and floodplains and restricting it to areas containing soils unsuitable for agriculture.**

##### **6. Planning tools**

- a. Realistic and effective zoning regulations, including meaningful agricultural zoning**

## Speakers for LWVDC Program October 8, 2014 Agriculture – Today’s Research, Tomorrow’s Tools



### **Bio: Heidi Zoerb**

Heidi Zoerb is the Assistant Dean for External Relations and Advancement in the College of Agricultural and Life Sciences (CALs). She oversees the college’s external relations efforts, leads the CALs communications team, works with the UW Foundation to advance the college’s development priorities, and advises the dean on matters related to the college’s public image and relationships with stakeholders.

Previously, she held positions in the Office of University Relations, the Division of Continuing and the Wisconsin Alumni Association. She has an undergraduate degree in Government and Literature from Claremont McKenna College in California and a master’s degree in Journalism and Mass Communications from the University of Wisconsin-Madison.

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### **Background Information on the College of Agricultural and Life Sciences (CALs)**

The University of Wisconsin–Madison College of Agricultural and Life Sciences (CALs) is a leader in addressing many of the grand challenges facing our world today. Providing food for all, developing sustainable energy sources and coping with changes in climate are examples of the pressing global concerns that are central to our purview.

While facing challenges, we also see opportunities. Recent decades have yielded widespread and enormous scientific advances, including the genomics revolution and an explosion of information of all kinds. Basic research has increased knowledge of the mechanisms of living systems. At CALs, our breadth of expertise along the continuum—from fundamental knowledge to applied research to implementation— puts us in a particularly strong position to meet the grand challenges of this century.

People and institutions around the state, nation and, the world look to CALs for knowledge and leadership. Our students, in ever-increasing numbers, come to us for an education that equips them to address the grand challenges they care about so deeply. In addition to preparing students to meet critical workforce needs in many areas, we also train them to be innovators and creative problem-solvers who can apply their abilities to new issues that will emerge in coming decades.

The college includes 19 academic departments, 16 research centers and more than 4,200 undergraduate and graduate students. Our programs address issues in the following areas: Food Systems: A “food system” includes activities from production to consumption, from farm to table, at local to global scales. The 20th century saw great increases in food production and

reduction of hunger. Developing effective food systems—ones that ensure a safe, secure, sustainable, affordable, accessible and nutritious food supply for all—to feed 9 billion people by 2050 will require continued innovation and dissemination of knowledge. Work in CALS addresses challenges across the spectrum of issues in production, distribution and consumption, including in such emerging areas as urban food systems.

**Bioenergy and Bioproducts:** Energy and products derived from living systems have the potential to reduce global dependence on fossil fuels while enhancing ecological resilience and economic vitality. Realizing this potential requires fundamental scientific breakthroughs, technical and social innovation, and thoughtful application and monitoring so that the new fuels and bioproducts are effective and affordable. CALS activities include converting biomass to fuels and chemicals; generating energy from manure and other wastes while also meeting needs for disposal and management of nutrients; and supporting decision-making based on understanding the social, economic and environmental impacts of energy systems.

**Healthy Ecosystems:** Our landscapes provide many services, from food, fiber and fuel to clean water and air, from flood management and wildlife habitat to recreation and aesthetics. Competing demands on natural resources, made more intense by growing populations, make it a challenge to manage landscapes in ways that balance these services. Combining understanding of how these ecosystems respond to land management with inventive technologies and approaches helps foster innovative policies and economic opportunities. CALS efforts include designing and managing landscapes in ways that help provide clean water and air, mitigate climate change and promote biodiversity while building communities and offering economic gain.

**Health and Wellness:** Through basic and applied research, CALS contributes to the promotion of health and the reduction of disease in humans, animals and plants. The obesity epidemic, which exacerbates many common diseases, has created an urgent need to better understand its causes and prevention. CALS brings diverse strengths to this endeavor, including expertise in metabolomics, functional foods and nutraceuticals. Moreover, CALS' efforts include improving animal health and well-being, which contribute not only to a safe and healthy food supply but also can directly impact human health via animal-vectorized diseases.

**Economic and Community Development:** In Wisconsin and around the world, local economies are increasingly influenced by global markets. Building healthy local economies and prosperous, stable communities requires understanding their internal dynamics and the nature of their interactions with national and global systems. CALS activities help inform decision-making by producers, entrepreneurs, consumers and policy makers to enhance the well-being of families and businesses; provide information to help communities cope with change and advance social and economic development; and spur social and economic innovations that benefit individuals and communities.

9-09-2014 from Heidi Zoerb



## **Bio: Kathleen Glass**

Kathy Glass joined Food Research Institute (FRI) at UW-Madison as a research scientist in 1985 and currently serves as associate director. Her primary function is to advise food companies on food safety issues and direct research projects on the microbiological safety of refrigerated and shelf-stable foods. In addition, she trains and oversees undergraduate student independent study research and collaborates with UW-Madison faculty in supervision of graduate food safety projects.

Kathy earned her B.S. degree in Biology, Secondary Education, from the University of Wisconsin-Eau Claire, M.S. degree in microbial genetics from Northern Illinois University, and Ph.D. degree in Food Science (food microbiology and safety) from the University of Wisconsin-Madison. Kathy is active in many professional organizations and national scientific advisory committees, including serving as 2004-05 president of the International Association for Food Protection.

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## **Background information on the Food Research Institute, UW-Madison**

The Food Research Institute (FRI) was founded in 1946 at the University of Chicago and moved to the University of Wisconsin (College of Agriculture and Life Sciences) in 1966. FRI operates its own laboratories and administers its own research and service programs. Our mission is to catalyze multidisciplinary and collaborative research on microbial foodborne pathogens and toxins and to provide training, outreach, and service to enhance the safety of the food supply.

To fulfill this mission FRI engages in the following food safety activities:

- Conducts fundamental and applied research
- Provides accurate and useful information and expertise
- Delivers quality education and training
- Provides leadership in identifying and resolving food safety issues to meet community, government, and industry needs

FRI is an interdepartmental entity at the University of Wisconsin–Madison, with the core Executive Committee and the Affiliated Faculty having tenure homes in the departments of Bacteriology, Animal Sciences, Food Science, Medical Microbiology & Immunology, Plant Pathology, and the School of Veterinary Medicine. In addition, faculty and staff collaborate on food protection projects with the Wisconsin Center for Dairy Research, and the departments of

Genetics, Molecular and Environmental Toxicology, Nutrition, Civil and Environmental Engineering, Biosystems Engineering, and Veterinary Diagnostics. The core faculty normally conducts about 50 basic and applied research projects in: foodborne pathogens and their toxins; pre-harvest and post-harvest controls; food bio-defense; food sensitivity; bioactive compounds; and diet and cancer. Occasionally, commercial products and processes are an outcome of the research, such as the development of the Wisconsin Process for low-nitrite cured meats and the preparation of purified botulinum toxin for medical use.

FRI's funding is derived from four sources:

1. The University, which provides our building and laboratories; pays faculty salaries; and contributes to certain projects.
2. Competitively awarded government grants and contracts.
3. Industry funds for work on specific non-proprietary projects.
4. Unrestricted gifts from companies, suppliers, and trade associations.

<http://fri.wisc.edu>

# **Kathy Glass: Get Creative About Food Safety**

**We'll never be 100 percent at spotting threats to our food. But what if the pathogens gave themselves up?**

## **Fixing Our Food**

When Kathy Glass spends the weekend at her in-laws' house, she usually finds herself cranking down the temperature on their refrigerator.

“When I arrive, it’s usually at 47 or 48 degrees Fahrenheit,” well above the recommended 40-degree level, says Glass, associate director of the UW-Madison Food Research Institute. “If you keep food in there for a long time at that temperature, it’s a bad thing.”

A bad thing, but an all-too-common one. Each year, an estimated 76 million cases of foodborne illness are reported in the United States, leading to 325,000 hospitalizations and 5,000 deaths. And while the sources of food contamination range from on-farm outbreaks to processing mistakes to improper storage at home, nearly every foodborne illness could be prevented if contamination were detected quickly enough to keep tainted food off the shelf. But despite a national network of food inspectors, tough industry standards and Glass’ own personal refrigerator checks, some problems sneak through.

The latest thrust in food-safety research, however, is to deploy technology as an unblinking watchdog for potential food problems. For example, scientists have developed sensors that can measure the amount of time foods spend above their ideal storage temperature, alerting consumers to potential spoilage. The sensors, which change color when a food is likely unsafe, are already used by wholesalers and may soon be affordable enough to affix to the labels of consumer goods. If that happens, Glass says the sensors would not only keep consumers safe but help educate them about proper food storage and encourage better habits.

At the same time, FRI researchers are experimenting with higher-end sensors that use nanotechnology to rapidly detect toxins and pathogens such as *E. coli* or *Salmonella* in the production process. With current testing methods, it can take days to confirm the presence of these potentially life-threatening microbes in foods such as ground beef, making it difficult to sniff out tainted foods before they leave the facility.

“It would be better to have something more like a (biosensor) dipstick, where you can find out something within a fairly short period of time—real time, even,” says Glass, “so that when there’s a contamination in the meat there would be this little glowing light that says, ‘Divert. Get this out of the stream.’”

Glass cautions that these nanobiosensors are “still very pie-in-the-sky at this point,” but they do have the potential to revolutionize the food-inspection process, bringing it one step closer to where society wants it to be: failsafe.

<http://grow.cals.wisc.edu/category/issue/spring-2010>

# Kathy Glass : Working With Companies To Safeguard Foods

Editor's note: This is part of a series of stories about the Wisconsin Idea. For more, visit <http://www.wisconsinidea.wisc.edu>. Written by - Nicole Miller, 608-262-3636, nemiller2@wisc.edu

10/21/09 CONTACT: Kathy Glass, 608-263-6935, kglass@wisc.edu

MADISON - This past summer, Kathy Glass and her team made batches of pepperoni in her laboratory-cum-kitchen in the Microbial Sciences Building at the University of Wisconsin-Madison. But it would have been a very bad idea to put her handiwork on top of a pizza. Stuffed into each casing, along with pork and spices, were E. coli bacteria, the kind that make people sick - and sometimes die.

Glass manages the UW-Madison Food Research Institute's Applied Food Safety Laboratory, where it's common practice to add dangerous bacteria and fungi to all sorts of processed foods. When her team is not lacing pepperoni with E. coli, they make contaminated cheeses and other deli meats, all in the name of protecting human health. The tainted foods help Glass study how foodborne pathogens spread through the nation's food system and search for ways to stop them.

One needs only to look at the headlines to understand the importance of that quest. Foodborne illnesses sicken approximately 76 million people in the United States each year, and kill about 5,000. The E. coli bacterium, while not one of the top offenders, is particularly deadly; just a few stray cells can kill. One of the worst incidents occurred in 1993, when a particularly dangerous strain of E. coli, known to scientists as O157:H7, contaminated hamburgers sold by the Jack in the Box chain, killing four people and sickening more than 700.

Glass and other scientists have been able to come up with ways to prevent contamination from the O157 strain in meat processing. But in recent years, other, less-familiar types of E. coli have emerged. Public-health officials believe that these strains may account for 20 to 30 percent of all E. coli contamination cases nationwide.

Naturally, the meat industry is concerned, and that's why Glass is preparing bad meats. The Grocery Manufacturers Association (GMA), which represents hundreds of food, beverage and consumer products companies across the nation, has funded Glass's project to study the emerging strains to assess how they fare under different food-preparation conditions.

"This is a pre-emptive strike," says Glass. "We want to find out if all of these new types of E. coli act the same way as the O157 strain. If so, or if they are more sensitive to processing, then we're OK. But if we find out that these strains end up being more resistant to heating, that means we've got a lot of work to do [to figure out how to kill them]."

Glass has been in charge of the Applied Food Safety Lab since joining the Food Research Institute (FRI) in 1985. The institute has nine core investigators who are dedicated to understanding and solving problems related to microbial foodborne pathogens and toxins. Originally founded at the University of Chicago in 1946, the institute has been at UW-Madison for the past 43 years.

Among the institute's labs, Glass's is unique. Crammed with pilot-scale food processing equipment - from milk pasteurizers and cheese-making vats to meat slicers and shrink-wrapping equipment - it is a place where food companies come to get help dealing with specific contamination problems. The FRI is one of few academic institutions in the nation to help businesses in this way, says Glass. The results of the current E. coli study, for instance, will be distributed widely throughout the meat industry, including the state of

Wisconsin, which is home to 488 meat processors and one of the largest producers of pepperoni in the nation.

The food-processing equipment allows Glass to make a wide variety of processed meats and cheeses just as the food industry would. Except for the nasty microbes they contain, the lab's products are indistinguishable from comparable items available on grocery store shelves.

"We're able to make foods with contamination that mimic what might happen in the real world, and because it's more representative of what would happen in the real world, we're giving people more accurate results," says Glass. "It's a shorter distance from the basic science to the application in the real world. That's where we are. We're that bridge."

That is a big reason why the GMA chose UW-Madison lab to run the current E. coli study. Originally, GMA scientists had considered doing the project in-house, but they quickly realized this wasn't an option. "First off, we don't have a smoke house, and you can't do pepperoni without one," says Elena Enache, a GMA microbiologist who spent the better part of two weeks in Madison this summer working elbow-to-elbow with Glass' team. "At the FRI lab, we mimicked the whole process. Everything was done like in the pepperoni industry."

It also didn't hurt that Glass ran the original E. coli O157:H7 safety study in fermented meats in the early 1990s, and that the FRI team subsequently developed the processing techniques that are still used today to kill O157:H7 in fermented meats.

Glass claims she hasn't had a single boring day over the years. She has worked with a long list of companies, food products and pathogenic bacteria, calling upon her FRI colleagues to help whenever it made sense. Most projects involve testing the safety of new product formulations or re-evaluating products when new pathogens crop up. In recent years, Glass has been involved in a big push to discover natural antimicrobials that can compensate for the salt - a natural microbe-killer - that's removed from low-sodium processed meats. "We go where there's the greatest need," says Glass, "and that's a shifting target all the time."

At present, the FRI has more than two-dozen dues-paying industry members that help guide the institute's research agenda, including Wisconsin's Johnsonville Sausage, Jones Dairy Farm, Sargento Foods and Schreiber Foods. But the institute is open to research projects proposed by members and nonmembers alike. On more than one occasion, a project has kept a business from failing. Some have helped save lives.

In one particularly fruitful collaboration, the FRI collaborated with Oscar Mayer to show that adding sodium lactate to processed meats was a safe way to prevent the growth of *Clostridium botulinum*, the bacterium that causes botulism, and, more recently, *Listeria*, a deadly bacterium that thrives in these products at refrigerator-temperature.

"Now you can't find a processed meat product today that doesn't have sodium lactate in it, and you can say that is because of a combination of work between FRI and Oscar Mayer," says Larry Borchert, who was director of central research and regulatory affairs at Oscar Mayer from 1980 until his retirement in 1996, and oversaw Oscar Mayer's role in the project.

While Glass is particularly proud of this project, it's just one of many that have helped her lab fulfill its mission over the years.

"We are here to help food companies make their food products safe for the consumer," says Glass. "We really do work together for a common goal, which is public health."

## **AGRICULTURE – Today’s Research, Tomorrow’s Tools LWVDC October Program and Issues Forum**

### **Additional Suggested Readings for the inquisitive member:**

#### **CALS History Highpoints**

“12 in 125” GROW, Wisconsin’s Magazine for the Life Sciences, Spring 2014 (available on the LWVDC website as a pdf)

#### **Clean Label ingredients vs. conventional ingredients**

<http://www.ingredients-insight.com/features/featurehealthy-trends-clean-label-and-natural-ingredients/>

<http://www.naturalproductsinsider.com/articles/2014/08/treading-the-clean-label-trend.aspx>

#### **Safety of organic vs. conventionally raised foods**

<http://www.foodsafetynews.com/2013/08/organic-foods-the-safety-question/#.VBL75sJdXm4>

#### **Date Labeling of Foods**

<http://onlinelibrary.wiley.com/doi/10.1111/1541-4337.12086/full> (more technical)

<http://www.nrdc.org/food/files/dating-game-report.pdf> Executive Summary

#### **Raw milk**

<http://www.fda.gov/Food/FoodbornellnessContaminants/BuyStoreServeSafeFood/ucm247991.htm>

#### **Food Fraud**

<http://foodfraud.msu.edu/wp-content/uploads/2014/08/flyer-FF-Reference-Sheet-Final.pdf>

#### **Consumer’s Guide to Food Safety Risks**

[http://www.foodinsight.org/A\\_Consumer s Guide to Food Safety Risks](http://www.foodinsight.org/A_Consumer_s_Guide_to_Food_Safety_Risks)

Dane County Agriculture Value and Economic Impact (Brochure)