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FROM CROP TO CRAFT BEER: FEDERAL REGULATION'S IMPACT ON AMERICA'S FOOD AND AGRICULTURE

FIELD HEARING

BEFORE THE

COMMITTEE ON HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS UNITED STATES SENATE

ONE HUNDRED FOURTEENTH CONGRESS

SECOND SESSION

AUGUST 17, 2016

Available via the World Wide Web: http://www.fdsys.gov/

Printed for the use of the
Committee on Homeland Security and Governmental Affairs

U.S. GOVERNMENT PUBLISHING OFFICE

25–158 PDF WASHINGTON : 2017

For sale by the Superintendent of Documents, U.S. Government Publishing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
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CONTENTS

Opening statements:	Page
Senator Johnson	1
Senator Ernst	3
Prepared statements:	
Senator Johnson	27
Senator Ernst	28

WITNESS

WEDNESDAY, AUGUST 17, 2016

Jim Zimmerman, Farmer, Rosendale, Wisconsin	6
Rick Vaughn, Chief Executive Officer, Innovative Ag Services	7
David Fritz, President and Volunteer Director, Potosi Foundation, Inc.	9
Richard Williams, Ph.D., Director, Regulatory Studies Program, Mercatus Center, George Mason University	11

ALPHABETICAL LIST OF WITNESSES

Fritz, David:	
Testimony	9
Prepared statement	38
Vaughn, Rick:	
Testimony	7
Prepared statement	32
Williams, Ph.D., Richard:	
Testimony	11
Prepared statement	41
Zimmerman, Jim:	
Testimony	6
Prepared statement	30

APPENDIX

Statements submitted for the Record from:	
Consumer Federation of America (CFA)	48
National Resources Defense Council (NRDC)	51

FROM CROP TO CRAFT BEER: FEDERAL REGULATION'S IMPACT ON AMERICA'S FOOD AND AGRICULTURE

WEDNESDAY, AUGUST 17, 2016

U.S. SENATE,
COMMITTEE ON HOMELAND SECURITY
AND GOVERNMENTAL AFFAIRS,
Dubuque, IA.

The Committee met, pursuant to notice, at 12:00 p.m., in Grand River Center, 500 Bell Street, Dubuque, Iowa, Senator Johnson, Chairman of the Committee, presiding.

Present: Senators Johnson and Ernst.

OPENING STATEMENT OF CHAIRMAN JOHNSON

Chairman JOHNSON. This hearing of the Senate Homeland Security and Governmental Affairs Committee (HSGAC) will come to order.

I want to welcome all of our guests for attending. I appreciate your interest in the subject.

I want to thank all of our witnesses. I know a couple of you have traveled a fair amount. I drove farther than he did, but I really appreciate your thoughtful testimonies. We reviewed them and look forward to your oral testimonies as well as your answers to our questions.

Today's hearing is titled, "From Crop to Craft Beer: Federal Regulation's Impact On America's Food And Agriculture."

Before I kind of make some brief opening comments, I would ask unanimous consent to enter my written statement into the record.[1]

We also want to just describe a little bit about what this Committee does. It is kind of a big name—the Homeland Security and Governmental Affairs Committee. It is really two Committees in one—compared to the House. We have the homeland security side of the Committee and then we have the governmental affairs side, which is really the Senate's Committee on oversight, with broad jurisdiction over providing the necessary oversight of the Federal Government.

The first thing I did when I became Chairman is, I reached out to Ranking Member Carper and other Committee Members and suggested that we develop a mission statement. And, we did. And, it is pretty simple. It is: to enhance the economic and national security of America. Those two things are inextricably linked. If you are going to have national security, you have to have economic se-

[1] The prepared statement of Senator Johnson appears in the Appendix on page 27.

curity. You have to have a strong economy. Then, on the homeland security side, we established four basic priorities: border security, cyber security, protecting our critical infrastructure—including our electrical grid—and countering Islamic terrorists.

And, we have concentrated like a laser beam on those four priorities on the homeland security side.

On the oversight—the governmental affairs part of that—of our assignment—we established two Subcommittees. One on regulatory reforms, chaired by James Lankford, with Ranking Member Heidi Heitkamp from North Dakota. And, we have really been delving into regulatory performance, which is the subject of this hearing. And, the other Subcommittee is chaired by Senator Rand Paul. It is really about identifying duplicative programs and waste, fraud, and abuse (WFA) in Federal spending. And so, that pretty well lays out what this Committee is all about.

And so, today's hearing really is focusing on the governmental affairs side—the oversight responsibility we have, which both Senator Ernst and I take very seriously. The focus is drilling down in on regulatory overburden, particularly, as it relates to food processing and agriculture. And, before I turn it over to Senator Ernst, who, by the way, I just have to say—I do not know if you keep records of the hours spent in Committee, but I would say Senator Ernst has, probably, the highest level of attendance—just below the Chairman, because I always have to be there—but she has been such a faithful Member of this Committee and such a valuable Member. And, I just give her great kudos and I just really enjoy her participation. And, I am glad you chose this Committee.

Let me just lay out the massive cost of Federal regulations.

In testimony and in different studies, it has been shown that it costs about 2 trillion dollars, per year, to comply with Federal regulations. Now, I know we are getting immune to these massive numbers—these trillions of dollars—so let me make that a little more relatable.

If you divide that 2 trillion dollars by the number of households in America, it translates to $14,800 per year, per household. That is the cost of complying with Federal regulations. And, of course, people do not realize it, because the cost is hidden in the price of products. For example, a water heater costs $450, because of Federal regulations tacked onto the normal cost.

I was talking to a Wisconsin paper manufacturer, who said that just four regulations—just four issued under this Administration—are costing his business the equivalent of $12,000 per year, per employee.

And, the question I am asking is—certainly, folks in Wisconsin—would you rather have that $12,000—or that $14,800—feeding a big, bloated government bureaucracy or would you rather have that $12,000 to $14,800 in your paycheck, feeding and providing for your family?

To me, I think—and Senator Ernst—it is pretty obvious. Now, we need some regulations—no doubt about it—but they have to be reasonable.

Today, we are going to be talking about the cost-benefit analysis (CBA) of regulations and I just want to concentrate on just one of the ideas we are going to be talking about: atrazine. And, Mr. Zim-

merman is going to be speaking to that. But, the Environmental Protection Agency (EPA) is trying to reduce the allowable amount of atrazine in water flow, right? From 10 parts per billion (ppb) to 3.4 parts per billion. Now, that seems like a massive reduction, right? From 10 ppb to 3.4 ppb?

Let me actually make that a little more relatable. We are in the midst of the Olympics, right? We are watching our American heroes win gold in the pool. Well, an Olympic-size pool holds 660,000 gallons. Ten parts per billion, in a 660,000 gallon pool, is the equivalent of about 5 teaspoons (tsp). If you reduce that down to 3.4 ppb, you are reducing it down to 1.7 teaspoons. So, we have to look at the reasonableness of these regulations. We have to put them in context and we always have to compare the benefit to the enormous cost, because, I believe, in your testimony, you are going to say that it could cost us—the American economy—almost 2.5 billion dollars to reduce the level of atrazine from—to use our example—5 teaspoons, in an Olympic-size pool, down to 1.7 teaspoons. We have to get reasonable and we need some common sense.

And, with that, I will turn it over to Senator Ernst.

OPENING STATEMENT OF SENATOR ERNST

Senator ERNST. Thank you, Senator Johnson. Thank you for coming to the beautiful State of Iowa.

Chairman JOHNSON. It is beautiful.

Senator ERNST. And, I want to thank you for your kind comments as well. I do participate, regularly, on the Homeland Security and Governmental Affairs Committee, because it is such an important Committee on two fronts. I have several different passions. Of course, the first is protecting our homeland. We all have a vested interest in that. But, rules and regulations are also a huge part of our everyday lives—and many times they do not seem to make common sense or be based on science. And, we want to do things right, here, in the United States. But, we want to do them right, as far as making sure that they make common sense and they are science-based.

So, with that, I do have a statement that I would like to enter into the record.[1] And then, we will proceed with our witnesses.

Thank you, gentleman, for being here today. It is a pleasure to meet with you and to have visited with you to talk about some of these issues. I am anxious for our public to hear your personal stories as well. So, again, thank you for being here.

And, again, we are holding this field hearing here in Dubuque, Iowa. We are glad to have our audience with us and I know that our witnesses did have to take time away from their busy schedules. So, thank you for joining us, today.

Today, we will be exploring a few specific regulatory issues, but, as we do this, please keep in mind that they are symptoms of a broader problem.

This Administration has made a habit of acting unilaterally—skirting the rulemaking process, ignoring Congressional intent, and taking broad liberties with the regulations they put forward.

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[1] The prepared statement of Senator Ernst appears in the Appendix on page 28.

This is a large part of why the Administration has lost the trust of the American people. Too often, I hear from Iowans that they feel like the government is out to get them. I have heard that at nearly every stop that I have made on my 99-county tour, across the State of Iowa.

This is a refrain I hear, especially, from farmers, ranchers and landowners. Today, I want to focus on some regulations that unfairly impact these particular groups.

The memorandum on Retail Exemptions—Process Safety Management (PSM) of Highly Hazardous Chemicals and Application of the Retail Exemption, issued by the Department of Labor (DOL), specifically, the Occupational Safety and Health Administration (OSHA), in July of 2015, reclassified the majority of traditional farmer cooperatives (co-ops) in Iowa and Wisconsin.

These farmer-owned businesses warehouse and distribute crop nutrients, including anhydrous ammonia, at thousands of sites across the Midwest.

In fact, Iowa uses more anhydrous ammonia as a crop nutrient than any other State, as it is the most cost effective form of nitrogen for farmers to utilize in producing affordable food and fuel for our growing world population.

The changes OSHA has made will be difficult for the companies to implement and will yield little—if any—safety benefits. Further, they will cost these retailers tens of thousands of dollars per site. Per site. These are costs that will, ultimately, be passed onto the family farms they serve.

Unfortunately, since the Department of Labor did not go through the formal rulemaking process, these key stakeholders were not afforded the opportunity to comment on the impact these changes in regulations will have on their livelihoods.

When Congress passed an annual spending bill last December, we spelled out that OSHA could not enforce their memo until they went through the proper notice and comment rulemaking process. But, a week later, OSHA, ignoring Congressional intent, simply stated that it would delay enforcement until the spending bill expired—this coming October 1. All of the while, this issue is tied up in the D.C. Court of Appeals. So, in May, OSHA informed the Court and sent a letter to every member of Congress, stating that they intended to go through the rulemaking process after all—but they would not rescind the memo while the multi-year rulemaking process takes place.

This is the kind of logic that can exist only inside the D.C. bubble. It only exists there. The Agency expects all farmer co-ops to be in compliance this October, while they belatedly go through the process to create the rule and gather feedback from the stakeholders that will bear the brunt of this misguided guidance.

Another imprudent move from this overzealous Administration came this past June, when the Environmental Protection Agency released its 520-page draft ecological risk assessment report of the herbicide atrazine. Much like their 297-page "Waters of the United States" (WOTUS) rule, this too threatens to increase costs for the men and women who are the bedrock of our safe and affordable food system.

The EPA's report indicates that the routine use of atrazine could be harmful to animals and our ecosystem. The report seems to ignore the nearly 7,000 scientific studies, over the past 50 years, which show the safety of atrazine—which is used by over 400,000 corn, sorghum, and sugar cane growers across the United States.

A primary concern I have with this report is that it is based, in large part, on studies that the EPA's own Federal Insecticide, Fundicide, and Rodenticide Act (FIFRA) Scientific Advisory Panel (SAP) called flawed just 4 years ago. It appears the Administration may, once again, be cherry-picking the data they find most convenient to support their overreach.

A 2012 University of Chicago study concluded that banning atrazine could cost corn growers an additional $59 per acre in input costs. The EPA has even estimated that not having access to this herbicide will cost corn growers $28 per acre in reduced yields. All of this is at a time when producers are looking at a $3.00 or lower price of corn—well below the cost of production.

I also wanted to mention that, just last week, a manufacturer in Cedar Rapids, Iowa announced that it was cutting jobs due to regulations. McLanahan Universal of Cedar Rapids, a maker of heavy equipment for mining, said that it is eliminating 15 jobs. And, according to their president and Chief Executive Officer (CEO), it is a direct result of the Obama Administration and the regulations that it has put in place, which have crippled the industries we serve.

All of these regulations follow a similar theme. One of bigger government, a disregard for common sense, and a "Washington-knows-best" mentality. It is the responsibility of this Committee to keep an eye on an Administration run amok and to push back where we can.

Thank you, Mr. Chairman. I will yield back to you.

Chairman JOHNSON. Thank you, Senator Ernst.

It is the tradition of this Committee to swear in witnesses, so if you will all rise and raise your right hand. Do you swear the testimony you will give before this Committee will be the truth, the whole truth and nothing but the truth, so help you, God?

Mr. ZIMMERMAN. I do.

Mr. VAUGHN. I do.

Mr. FRITZ. I do.

Dr. WILLIAMS. I do.

Chairman JOHNSON. Thank you. You may be seated.

Our first witness is Jim Zimmerman. Mr. Zimmerman is a corn grower near Rosendale, Wisconsin. He is a board member of the National Corn Growers Association (NCGA). He is also a director of the Wisconsin Corn Promotion Program and an advisor to the Integrated Pest and Crop Management Program. He was previously the president of the Wisconsin Corn Growers Association (WCGA). Mr. Zimmerman.

TESTIMONY OF JIM ZIMMERMAN,[1] FARMER, ROSENDALE, WISCONSIN

Mr. ZIMMERMAN. Chairman Johnson and Senator Ernst, good afternoon.

My name is Jim Zimmerman and I am a board member for the National Corn Growers Association. And, I also serve as a director for the Wisconsin Corn Promotion Board. I thank the Committee for inviting me to testify at this hearing on the regulations affecting U.S. agriculture.

I would like to begin my testimony by telling you a little bit about myself and my operation. I am a Wisconsin grower with 2,700 acres of corn, soybeans, and wheat, which are grown using conservation tillage methods of no till and strip till—depending on the crop. I am a third generation farmer and I plan for my son, Aaron, to take over the farm one day. Every farming decision I make is motivated by what is best for the long-term viability of the farm. From the crops we grow to choices in tillage practices, everything is done with an eye on the future.

A key consideration for every farmer is which crop protection tools to use to ensure we raise a successful and healthy crop. One of the most important tools I use on my farm is the herbicide atrazine. And, I am far from alone in this regard. Atrazine is one of the most widely used herbicides in the United States. Used on well over half of corn and sorghum acres and on as much as 90 percent of sugar cane acres. Many specialty crops rely on the herbicide as well. Applying atrazine to control weeds allows farmers to use conservation tillage, a farming method that leaves the residue from the previous crop to cover the soil surface after planting. According to the United States Department of Agriculture (USDA), by leaving the crop residue and reducing or eliminating tillage trips, farmers are able to protect the soil from water and wind erosion, conserve moisture, reduce runoff, improve wildlife habitat, and limit the output of labor, fuel, and machinery. In fact, conservation tillage reduces soil erosion by as much as 90 percent.

Atrazine is the most widely used herbicide in conservation tillage systems. Without atrazine, farmers would have to use higher quantities of other herbicides that are less effective, while increasing tillage and threatening the soils health and nutrients.

Atrazine has been used in this country for more than 50 years. More than 7,000 scientific studies have been conducted on the safety of this herbicide to both the environment and to humans. The evidence, overwhelmingly, confirms atrazine is safe. The World Health Organization (WHO) and regulatory agencies in Australia, Canada, and the European Union (E.U.) have all come to the same conclusion. That is why NCGA was shocked to learn of the EPA's findings in the preliminary ecological risk assessment that was released this past June. Through the use of highly questionable studies, the EPA arrived at an aquatic Level of Concern (LOC) of 3.4 parts per billion—a two-thirds reduction from the current level of 10 ppb. Scientific evidence points to a safe aquatic life Level of Concern at 25 parts per billion or greater. A Level of Concern of

[1] The prepared statement of Mr. Zimmerman appears in the Appendix on page 30.

3.4 is, practically, unachievable and would represent a de facto ban on the use of atrazine, were it to become the standard.

The EPA's conclusions rest on serious scientific errors and flawed interpretations—and are inconsistent with many of the Agency's previous conclusions. Several rigorous, high-quality scientific studies were discounted by the draft ecological risk assessment, in favor of studies found flawed by the EPA's own 2012 SAP.

By the EPA's own estimate, farming without atrazine would cost farmers an additional $28 per acre. A 2012 University of Chicago study puts that number closer to $60 per acre. A loss of atrazine would have an additional negative consequence in controlling weed resistance. NCGA has advocated for farmers to implement multiple modes of action as a key part of weed resistance management. Atrazine is one of these essential modes that make this best management practice possible.

If atrazine—one of the most studied herbicides with a proven track record of over 50 years of safe use—is experiencing such difficulty in re-registration, the future does not bode well for other crop protection tools. The cornerstone of our regulatory process must continue to be reliant on the best science and data. Flawed risk assessments, like the one at hand, threaten the integrity of the review and the regulatory process as well as farmers' ability to maintain high crop yields and to reduce soil runoff through the use of atrazine. NCGA and our farmer members are submitting comments to the EPA on this document, and we remain hopeful that the EPA will return to a review process that is based on sound science. The credibility of the Agency and the long-term sustainability of U.S. agriculture depend on it.

Again, I thank the Committee for this opportunity to testify and for holding this hearing on a topic that is critically importantly to this nation's farmers.

Chairman JOHNSON. Thank you, Mr. Zimmerman.

Our next witness is Rick Vaughan. Mr. Vaughan is the CEO of Innovative Ag Services (IAG), a 4,845 farmer-member-owned retail farm supply co-op in Iowa and Wisconsin. He oversees 33 locations, 340 full-time employees, and up to an additional 165 seasonal employees. He was previously the CEO of Prairie Land Cooperative and the CEO and controller of Avon Grain Company. Mr. Vaughan.

TESTIMONY OF RICK VAUGHAN,[1] CHIEF EXECUTIVE OFFICER OF INNOVATIVE AG SERVICES

Mr. VAUGHAN. Thank you, Senator Johnson and Senator Ernst. Everything I listened to, from Senator Ernst—I appreciate your knowledge on this. You hit every point I was going to try and make, so thank you for that.

Let me summarize my submitted information for you, please.

We currently spend 593 hours per year, which equates to about 64 cents per ton, training our employees on how to safely handle anhydrous ammonia.

I have been in this business for 35 years. I have worked at the ammonia plant, loading ammonia for our farmer customers. I have delivered ammonia to their farms and have also worked on the

[1] The prepared statement of Mr. Vaughan appears in the Appendix on page 32.

equipment at the ammonia plant. In that 35 years, I have not been involved in any anhydrous ammonia fatalities. None, whatsoever.

Our PSM compliance cost estimates are outlined 1 through Document 6, which I included in my prepared statement.

Document 1 provides the written detail that I am currently summarizing.

Document 2 provides the up-front cost estimates to bring an anhydrous ammonia location into PSM compliance. You will note that amounts to 177 hours of time and $26,000 per location. You have, probably, read there are estimates out there for more hours and more dollars and also for fewer hours and fewer dollars. This information was compiled by our safety consulting firm, which we have contractually hired, and by Thatcher Block, the safety director in our organization, along with some of our operations people.

The location we use has 92,000 gallons of anhydrous ammonia capacity: one 26,000 gallon fixed tank, one 12,000 gallon fixed tank, and 55 small tanks that are used to transport product to the farm.

Document 3 and Document 4 provide detail of the up-front cost segments that make up this 177 hours. If you look through that detail and those technical points, you can see information that our industry has not needed over the many safe years that anhydrous ammonia has been used to produce corn in the United States.

Document 5 provides an annual estimate to keep PSM program materials updated, along with additional time for training, as is being mandated by PSM.

Document 6 provides a summary of the up-front costs, plus the annual cost, along with an illustration of the PSM cost per ton, per location at Innovative Ag Services.

I think what is important is that this table illustrates the magnitude of the cost of PSM compliance and identifies which locations will be subject to close due to PSM.

Our research tells us that we could spend up to $725,000 to comply, if we elect to become PSM compliant at all 27 locations. This annual cost amounts to $10.31 for all ammonia tons that we sold in fiscal year (FY) 2016 for our year, ending in August of 2016.

We do not believe this cost per ton to be economically feasible, so we are left with deciding what choices we are going to make. If we choose $10 as a threshold and cut it off there, we are going to be forced to close 59 percent of our facilities, or 16 locations. Why $10 a ton? Well, today, I can tell you that we can get sold out, by our customers, for the $10 number—really quickly.

So, one real question is, how many of our competitors and other users of ammonia are going to comply? And, if we set out to do this, immediately, what kind of cost advantage—disadvantage, excuse me—are we going to put ourselves in?

But, I think it is extremely important to move from—to think about the fact that 64 cents a ton is what we are spending, now, on training. There have not been any fatalities in the 35 years I have been in business. And, we are going to be asked to spend $10.31. So, what is the value of that almost 20-fold increase in cost?

Another thing that is important—65 percent of our total tons of ammonia are picked up by our farmer customers. We deliver the other, approximately, one-third of our total tons. So, the closure of

any number of these facilities is going to cause customer dissatisfaction.

Remember, these are the farmer-customer owners of our organization. We are going to put more anhydrous loaded miles on the road, if we have to do this. If we convert all of that tonnage to urea-ammonium nitrate (UAN), which is a liquid form, it is a 2.6-factor increase in the amount of nitrogen. You are going to put another 1,500 trucks on the road in the 2 week to 3 week spring planting season. You have to stay ahead of the planters if you are going to get the levels of nitrogen down. There are other choices, but not to the magnitude that we are currently doing it, today.

Our facilities operate—our ammonia facilities operate 2 weeks to 3 weeks in the spring, ahead of the corn planters. They operate 2 weeks to 3 weeks in the fall—after the combines, after the temperatures drop, and before Thanksgiving, primarily. There is another approximately 2 weeks in the spring season—or ahead of the spring season and ahead of the fall season—that we are filling those facilities and those tanks to be prepared for those busy seasons. That amounts to 20 percent of the year. These anhydrous ammonia facilities are sitting idle for 80 percent of the year.

So, thank you for your time this afternoon. I hope this information can help you to understand the challenges this PSM regulation is causing and also the economic burden it will place on our farmers, who are committed and who will produce the food supply that we have.

Chairman JOHNSON. Thank you, Mr. Vaughan.

Our next witness is David Fritz. Mr. Fritz is the volunteer president of the Potosi Foundation and volunteer director and general manager of the Potosi Brewing Company. The Foundation is the sole shareholder and owner of the Potosi Brewing Company. He is also president and CEO of TRICOR Insurance an independent insurance agency in Wisconsin, Iowa and Minnesota. Mr. Fritz.

TESTIMONY OF DAVID FRITZ,[1] PRESIDENT AND VOLUNTEER DIRECTOR, POTOSI FOUNDATION, INC.

Mr. FRITZ. Thank you, Chairman Johnson and Senator Ernst.

The Potosi Foundation was organized, in 2000, to save the original building that housed the Potosi Brewing Company that was built in 1852 and shut down in 1972. After a $7.5 million renovation, the Potosi Brewing Company opened in 2008 and is the home of the National Brewing Museum, an interpretive center for the Great River Road, and an operating brewery and brew pub. In 2010, we took beer to retail and, because of the increasing beer sales, we needed to move the brewing operations and the restaurant to an outside company we call the Potosi Brewing Company. And, the sole shareholder and owner of that company is the Potosi Foundation.

From 2010 to early 2015, we worked with an outside brewery and contracted the production of most of our beer that went to retail. Early in 2015, we opened a new $6 million production facility and that facility includes bottling, kegging, and canning capabilities. We are also beginning to contract, brew, and package for other

[1] The prepared statement of Mr. Fritz appears in the Appendix on page 38.

smaller breweries around the Midwest. We wanted to get the manufacturing jobs in southwest Wisconsin back and we also wanted to maintain 100 percent of our own quality, which was the reason for moving ahead with our own production facility.

Potosi produces 6 styles of beer year-round and over 10 seasonal, limited edition, and barrel-aged products. We also produce and sell draft and bottled root beer. We distribute in Wisconsin, the eastern half of Iowa, and the northern tier of Illinois, through 13 independent beer wholesalers.

The craft beer industry, in Wisconsin and countrywide, has experienced remarkable growth in recent years. At the end of 2015, there were 4,269 breweries in the United States, representing a 15-percent growth over 2014. In November 2015, the number of breweries exceeded the peak, which was 4,131 breweries, in 1873. In 1978, the number of breweries dropped to 89 operating breweries in the United States. The rate of growth is slowing a little bit in 2016.

The economic impact created by the craft brewing industry is significant.

Craft breweries are a rare manufacturing success story and this is fueled by the farmers providing quality ingredients. Sixty-five percent of the U.S. barley crop is used by the brewing industry. And, of that number, 35 percent to 38 percent is used by craft breweries. The number of hops acres planted in the United States, in 2016, is at 51,000. That is up from 43,000, in 2015. Family farms are providing the highest quality ingredients in the world, allowing the craft breweries to produce the highest quality beer in the world.

Potosi uses Wisconsin honey in our root beer. We use pure lemon juice in our "Steamboat Shandy" and we use pure tangerine juice in our Tangerine India Pale Ale (IPA). The farmer-produced products used by the craft beer industry are very broad.

For the craft beer industry to continue to thrive, it is important that we are not subjected to regulations that drive up our costs of doing business. The consumers have shown they are willing to pay more for quality beer, produced in small batches, by private business owners.

Some of the issues that we are facing today—the Food and Drug Administration (FDA) menu-labeling issue, which stems from the Food Modernization and Safety Act (FSMA) will be very costly to brewers. Restaurants with more than 20 locations are required to provide the nutritional information of beer and other spirits—and the cost would likely fall on the brewery to provide this. So, if Potosi wanted to continue to provide beer to craft restaurants—or to chain restaurants—we would need to spend an estimated $1,000 to bring that data to the chain restaurant, per style of beer.

Transparency in labeling allows consumers to make informed choices when purchasing beer. Consumers have an interest in knowing the name of the brewery company or parent corporation that, ultimately, owns the beer brand. Encouraging all brewers to disclose to consumers their ownership of beer brands, including the name and the parent brewery that owns the brand, on the brand's label, enables consumers to make informed buying choices.

Recently, the FDA attempted to restrict the spent grain—and that is the by-product after the grain—after the brewing process is completed—from being used for animal feed. Following a lot of discussion, the FDA exempted brewers grain, so that it can be used for animal feed. I believe this is an excellent example of an unintended consequence in the new regulations. This is also a good example of how government worked together to solve the problem and eliminate what would have been a very expensive cost.

The craft brewers pay $7, per barrel of beer produced, in an excise tax. Consideration should be given to reduce the expense to the craft industry. Reducing the Federal excise tax to $3.50 per barrel, in the example of Potosi, would have saved us $20,000 in 2015. Based on production forecasts, it would have saved us $40,000 in 2016 and $63,000 in 2017.

What would the money be used for? It would be used to hire new employees and expand our operations.

The Craft Beverage Modernization and Tax Reform Act of 2017 is working its way through Congress. Craft brewing is an innovative industry—growing quickly, hiring people, and being built by entrepreneurship. These are small business owners, who love what they do and use the craft beer industry to make a living for their families.

The margins are small and there is a lot of competition. Brewers want to make the highest quality product for the consumers and the consumers are very informed and willing to pay for quality. It has thrived, because of a light regulatory touch. We are "risk swamping" that success, if we hit the regulatory throttle too hard.

Thank you for allowing me to testify before your group this morning.

Chairman JOHNSON. Thank you, Mr. Fritz.

Our final witness is Dr. Richard Williams. Dr. Williams is the Director of the Regulatory Studies Program and a senior research fellow at the Mercatus Center at George Mason University (GMU). He is a 30-year veteran of the Food and Drug Administration. He was previously a director for social services at the FDA Center For Food Safety and Applied Nutrition (CFSAN). He is also an advisor to the Harvard Center for Risk Analysis (HCRA) and is a U.S. Army veteran. Thank you for your service and thank you for your testimony. Dr. Williams.

TESTIMONY OF RICHARD WILLIAMS, PH.D.[1], DIRECTOR, REGULATORY STUDIES PROGRAM, MERCATUS CENTER, GEORGE MASON UNIVERSITY

Dr. WILLIAMS. Thank you. Chairman Johnson and Senator Ernst, thank you for inviting me to testify today on the impact of Federal regulations on American food manufacturing and agriculture.

As a long-time employee of the Center for Food Safety and Applied Nutrition in the Food and Drug Administration, I believe we are in a position, if we choose, to embrace the changes that have occurred in the last several decades in society and in the food industry to make real progress in food safety.

[1] The prepared statement of Dr. Williams appears in the Appendix on page 41.

First, we have better technology. These new technologies can help us locate the sources of food safety outbreaks as well as create safer foods and packaging.

Second, because of increased interest in food safety, by the public, we can give stakeholders more of a role in creating new regulations by allowing them to challenge Agencies, in court, when they fail to properly analyze their rules. With better technology and better information, we can finally pledge down the number of cases of foodborne disease that repeat themselves year after year.

On the other hand, if we stick with the same old policies that continue to fail us, we will continue to hear that 48 million Americans get sick every single year from foodborne disease.

As a public health researcher, this is depressing. Is there ever going to be an end to this? Are we ever to going to take public health seriously and insist on results, rather than on just more costly rules? For those in the food business, particularly, those who are far too busy to play in the complex process of the Federal regulation, the shame is that they live in a state of constant uncertainty about what to plan or produce and how much regulations are going to cost them this year. And then, they end up paying for regulations that do not work.

Let me give you a few examples of our regulatory failures. After decades of using their own creative system of process controls, known as the Hazardous Analysis Criminal Control Point (HACCP), the industry stood helplessly by as the Federal Government commandeered it to turn it around and required its regulations—particularly, where it was not needed. Where before it was a targeted, flexible system, now it is a universal, static bureaucratic system.

The first three mandated HACCP regulations were for seafood, raw fruit juices, and the USDA meat and poultry rule. As an example of the failures of this approach, the benefits of the seafood rule relied, primarily, on solving the problem of contaminated oysters from the Gulf of Mexico. But, 15 years after the rule became final, the cases of foodborne disease from raw oysters from the Gulf had doubled.

Now comes the glut of new rules directing the rest of industry to use HACCP.

One of the more extensive rules directs the entire packaged food industry to start using a ramped-up version of HACCP—even though the FDA acknowledges that most foodborne disease comes from homes and retail establishments.

The FDA estimated the cost at about one billion dollars. The industry replied, using a Mercatus tool, that it will more likely cost in excess of 18 billion dollars. It fails the "benefit-cost" test.

Next, as mentioned, there is the animal feed rule. Originally proposed to cover both pet food and farm animal feed, the FDA's analysis—which the FDA ignored—demonstrated that the vast majority of the problem was with pet food. Mercatus research demonstrated that including farm animal feed added approximately 120 million dollars to this rule. Whereas before, to cover pet food, it would have only cost $10 million.

Then, there is the produce rule, where some of the most tortured logic is employed, to cover all fruits and vegetables that might be

eaten raw. I would like to say that this logic is rare, but, throughout my entire FDA career, I heard it often.

So, rather than just limiting the rule to produce that had been associated with outbreaks, the FDA explains that all commodities must be covered, because they have the potential to be contaminated. This means that, for the FDA, the problem is not food safety. It is a lack of regulation.

Why can we not have better outcomes? It is not for lack of money. The FDA's budget has increased by 116 percent since 2007. Not to mention the hundreds of millions of dollars spent by industry to comply. I actually included a chart[1] in my testimony that shows how little we have gotten for the money that we have spent.

Maybe the problem is that we hire experts and we ask them to write multiple rules every year. For the FDA, this is now going on 110 years.

Lately, this does not seem to be getting us new and workable solutions.

So, here are some new directions for Congress to consider. First, we have tools that did not exist 20 years ago. A few decades ago, if you produced a contaminated food, the odds were that no one would ever find out it was your food. We now have better tools, in government, to identify specific pathogenstrains in sick patients. We also have new private technology, like Radio Frequency Identification (RFID) tags and deoxyribonucleic acide (DNA) spray-on technology, which can be attached to foods to help trace them back to the source of contamination.

So, if we pursue these tools more vigorously, we will be able to go, much more frequently, from a sick person back to the source—and to positively identify that source. Once regulators know the source, an investigation can be conducted to determine the cause of the problem.

Posting problems and solutions on the Internet can identify these firms, because of the intense consumer interest. It will drive the millions of private food contracts, which now include food safety provisions as well as private inspections, up and down the food chain. Posting the results of outbreak investigations can get rapid results by creating strong incentives to exercise due diligence. No one wants to incur the massive costs associated with an outbreak.

The changes that I have just described, as a result of such a system by the private sector, can be particularly effective, relative to regulations that take an average of 4 years to create—and many more years of inspection to get results.

So, rather than trying to get all firms to use HACCP—where there is either no problem or it does not work—let us focus on what is actually wrong and move quickly to address the problems.

Second, let us give stakeholders much more of an equal role in food safety regulations by giving them the right to sue an Agency when its regulatory analysis is missing, poorly done, or ignored.

Mercatus has demonstrated these problems time and time again.

Finally, let us embrace technology—the way we finally did when pasteurization was invented. We did not embrace irradiation—even though it would have prevented hundreds of thousands of cases of

[1] The chart referenced by Dr. Williams appears in the Appendix on page 46.

foodborne disease. Both genetic modification and nanotechnology hold a great deal of promise for food safety. If we start doing things differently, we can avoid the same annual announcements of the same number of foodborne illnesses. We can also save our farmers, producers, and consumers for overspending on regulations that do not work.

Thank you.

Chairman JOHNSON. Thank you, Dr. Williams.

Again, I want to thank all of our witnesses for their testimonies.

I will start with Mr. Zimmerman and ask the basic question I will probably ask all of you. In terms of results, as it relates to atrazine and the EPA, do you know why they are trying to do this? I mean—and, again, I laid out the Olympic pool example—5 teaspoons to 1.7 teaspoons. Why?

Mr. ZIMMERMAN. Well, that is a good question and I would be kind of speculating if I were to say.

Chairman JOHNSON. Go ahead and speculate.

Mr. ZIMMERMAN. But, the point is, if you can take a product that has been proven safe and has been used for over 50 years, and you can greatly minimize it, then you can do anything. You have then—pretty much everything is at risk.

I mean, you have now done something that would be limitless, as far as what their—their reach would be. So, that would be the issue there.

Chairman JOHNSON. In your testimony, you talked about the fact that your farm is multigenerational.

Mr. ZIMMERMAN. Yes.

Chairman JOHNSON. That everything you do is really for the long-term viability of the farm. I come from the private sector. It is bad for business to hurt your customers. It is bad for business to expose your—keep the work with you—to endanger—lack of safety. I, certainly, believe that the vast majority of farmers are really concerned about their own animal husbandry and about keeping their—the sustainable type of farming. You talked about conservation and tillage. Can you go into that in a little bit of greater detail, in terms of how seriously you take the long-term viability of your farm and why you really do not need a lot of these regulations to make sure that you maintain a clean environment on your farm?

Mr. ZIMMERMAN. Thank you. Yes. It is about preserving the future for the next generation and understanding that we really do not own the land. We use the land and we want to be able to have it in better shape than when we received it. So, it is a tremendous resource for us, in that regard.

Every now and again in every lifetime you have certain circumstances that occur—events—like a 50-year event that will happen while you are farming—and we had one in 2008. We had, approximately, 14 inches of rain, in about 10 days—late June or early July. The crop was well established and what not. And, some of the farms in the township—where they were not necessarily, practicing conservation tillage—they had to get out the snow plow to remove the soil off of the road to make it passable. And, next—the roads next to our farm—we were busy with the backhoe, getting the residue out of the culverts, so the water could flow through.

Now, what that means is, it is really evident that preserving—not only the soil, but also the water quality—in regards to making sure that phosphorus does not move off and that we have good water quality. We all want that.

But, that is, primarily, what is key, here, with conservation tillage. And, it is maintaining our resource—that soil, which we generate our livelihoods from.

Chairman JOHNSON. So, again, if you are not able to use that herbicide—that atrazine—you will, probably, be less likely to use conservation tillage and you really do more harm than potential good—that is, basically, your point?

Mr. ZIMMERMAN. Yes. One of the things about conservation tillage—and atrazine—in that regard, is the fact that it takes more management to deal with the residue on the surface—and we do this because of the improved benefits that go along with conservation tillage. And so, atrazine is just—is one part of the tools that we need. And, we need all of them.

The fact is that they are not making new products. And, we have a limited source of products from which to utilize. And, by having multiple modes, we talk about weed resistance management—the point is that, in order to keep all of these products durable—and prevent weed resistance—management—we need all of them. And, atrazine is key for us.

We use it at a rate that is—in conjunction with another product—between the two of them, we use less than, maybe, what the label rate is—or nearly. That is within—on the label—and we have found that we are using less active ingredients per acre, because we are adding those—that combination of products.

Chairman JOHNSON. Mr. Vaughan, as I was listening to your testimony, a thought was going through my mind—which always goes through my mind as I am looking at these regulations—it is a solution looking for a problem. Let me ask you that question. Why is OSHA doing this?

Mr. VAUGHAN. I do not know that I have a good answer for you.

Chairman JOHNSON. Again, you can speculate.

Mr. VAUGHAN. It is my understanding that it started as a result of the West, Texas explosion that happened and that involved ammonium nitrate. It is my understanding that the only thing—or one of the main things that survived that explosion was the anhydrous ammonia tank—intact with the product still in it.

So, how it was extrapolated to central Iowa, with our ammonia facilities that operate 20 percent of the year, I do not know. Some of Senator Ernst's comments caught my attention—about overreach and someone trying to solve problems with a wide, sweeping pen. And, I do not understand all of the rules and regulations.

I heard Dr. Williams talk about—and we are involved in some HACCP, too—but it just feels like someone is, with a stroke of a pen, thinking they are going to solve something. And, they do not have a full understanding of the magnitude of the challenges that they are creating and the economic burden it places on people.

Chairman JOHNSON. Well, coming from the private sector, where, let us face it, every business is motivated by growth and profitability—one thing I found about our government is, it has the same

motivation. It wants to grow. And, I guess I would put that down as one of the concerns.

Can you describe what the difference is, in your locations, because, obviously, some of these locations are going to be able to bear the burden of this increased cost if you have to—if this regulation gets implemented and others cannot. Can you describe why that is?

Mr. VAUGHAN. We see PSM as a fixed cost per location—that $27,000. And then, on an ongoing basis, 10—so if you want to ammortize that fixed cost that is the cost over 5 years—I do not know if that 5 years is a good number. Tell me how much more regulation is coming—or not coming—at us, so that, if you have a fixed cost of operating—against a different size of tonnages.

One of our challenges out here in rural Iowa is, if we were going to settle Iowa today with the current technology we have, we would not drop a city in every 10 miles. We did that because of the technology 150 years ago. So, consequently, our customer-producers are used to that service, in that geography, and the only way you can drive that cost is to run more tons through that fixed cost.

Chairman JOHNSON. So, in other words, it is volume related?

Mr. VAUGHAN. Yes.

Chairman JOHNSON. And, this is the point I wanted to make, because it is extremely important. Every politician is always talking about supporting small business, right? And yet, every last one of these regulations harms small business, relative to large businesses—because large businesses can afford the cost of compliance.

It actually ends up being a barrier to entry in a lot of businesses. So, even in your own operation, you have larger locations. Higher volume locations can actually support—or can survive with that added cost—and smaller ones cannot. So, I guess the point I am making is, if you want smaller businesses to survive—which, by the way, that is what competition is—those are the people that create jobs and that is the innovation in our economy—you have to be really concerned about overregulation.

I will yield to Senator Ernst.

Senator ERNST. Thank you very much.

And, just on that topic, too, I had a quote—and I am not going to say who I am quoting. I do not want to put him under the gun, but he gave a quote—and it is a co-op from the central part of Iowa—and they have 70 retail locations serving their farmer-owners all across the State of Iowa. And, this gentleman—and I am going to quote this. He says, "At this point, this co-op has committed to going forward with compliance, so that we are ready by October 1. We are spending about $20,000 to $30,000 per site, to be ready. I have had other agriculture retailers inquire about our intentions. Several, with only one or two locations, are, probably, going to exit the business. Since this particular co-op is all in, I guess it is best, for us, if the PSM eliminates competitors. I doubt that farmers or Senator Ernst will agree, but that is what government regulations do—sort out free competition."

And, that is what we see. And, some of the larger retailers will be able to make it through—at significant cost—but the smaller retailers simply do not have that kind of capital to put into these

types of regulations. And so, they will be eliminated and they will be forced out of the business.

And, that means, as you said, additional traffic on the roadways, as farmers have to go farther to get their products and—and so on and so forth. It is endless.

So, you have made some really great points, Mr. Vaughan.

I am going to go back to the explosion at West, Texas, because you did bring that up—and you are correct that this new rule, by OSHA, is a result of that—and OSHA has stated that. They used this tragic explosion as an excuse. And, when they narrowed down the definition of retailers of anhydrous ammonia to force farmers—cooperatives to comply with the PSM regulation—they did that, even though they are simply storing—we know our retailers are just simply storing—as you stated—the product. They are not producing it. So, it was just exposing them to onerous regulation.

And, I thought it was very funny. And, I go back to, again, science-based, factually-based rule and regulation making. The explosion was not due to anhydrous ammonia. It was due to an entirely different product. And, later on, as it was discovered, the explosion was the result of arson. It was not due to these products. And yet, we now have a new regulation that is subjecting our American agricultural industry to a significant expense.

But, I have stated that I think it is going to lead to reduced competition. Mr. Vaughan, what do you think this rule will do? Do you have other examples of businesses that have come to you and, maybe, stated that they would get out of the business?

Mr. VAUGHAN. Yes. We are currently visiting with a company, today, that is independent—a single location business. It is considering transferring ownership, because of the age of the father and the son's lack of interest in it—devoting as much capital to the business. And, when I asked him about this—if they had started on it—they did not know anything about it. And, they did not plan to do it. So, I think that is a perfect example of what is going to happen.

And, I think the numbers we have compiled are a good example of—we are a larger company, but we cannot afford to do that everywhere—when you look at some of those tons that are being considered. And, the reason is, because, at location X, if it is extremely expensive—because of low tonnage—can you expect location Z farmers to pay for that over time, if it is not a sound investment of the capital?

Senator ERNST. And, you brought up a great point as well. You stated that that retailer did not know about these changes, correct—or, the rules and regulations and the improvements necessary?

Mr. VAUGHAN. That was the son's answer to me, when I asked the question.

Senator ERNST. And, I think that is a problem with this specific rule as well—that stakeholders were not involved in the rulemaking process. So, I would not be surprised if there are others that are out there who are not aware—and, maybe, they are aware now, because we have talked a lot about it, but, as far as actual notifications coming up from OSHA—and then, actually, being able

to participate in a rulemaking process—they were simply disregarded.

Mr. VAUGHAN. I believe that to be true, yes.

Senator ERNST. Well, I would like to ask all of you for your thoughts from—we have talked about a number of issues. We talked about atrazine. We have talked about anhydrous ammonia. We talked about some of the issues with PSM. But, from some of the regulations that we have talked about, today—apart from those, can you think of any other regulations that we should be highlighting, today? And, what are those regulations doing, as far as interfering with you being able to grow your business—expand your businesses? Are there things that you can think of, off of the top of your heads? And, actually, I am going to start down here, with Dr. Williams. Could you think of other regulations that you have seen, during your time in governmental Agencies?

Dr. WILLIAMS. Well, certainly, the one you mentioned. As far as in the United States, I think, this is the huge one.

If I may, I would just like to go back to the atrazine example, because you asked what the problem is. The Department of Energy (DOE) has just opened up a very interesting question, which is: should we continue to use the linear-to-log model? And, what that model says is that, if you feed animals very high doses of something and they get ill, you extrapolate all of the way down to the amount that humans would actually be exposed to—and all of the way down to zero, which is, somewhat, biologically implausible.

The Department of Energy has now asked whether we should continue to use that model. That is the model that is responsible for these kinds of results.

In my time, at the FDA, for example—at one time, we banned saccharin, which later proved not to be a carcinogen. We did it, because we fed rats the equivalent of 800 cans of soda a day. And, we said, "Well, if you drink one or two cans of soda, then you just get that much less." It is the equivalent of saying, "If I jump down ten flights of stairs, I will be killed. So, if I jump down one stair, maybe, I won't be hurt that badly."

It is time to reconsider that model and I think that is one of the main issues with atrazine.

Senator ERNST. Great. Thank you. Mr. Fritz.

Mr. FRITZ. I will go with that and add just a couple of things that, maybe, are a little bit broader in scope—and, certainly, the increasing costs of healthcare and the insurance premiums, as a result of increasing costs, which are affecting all small businesses—and that is my day job. We do a lot of that type of work. And, whether it is the Potosi Brewing Company or any other small business out there, that is an incredible cost that is being put upon them and a burden. And, hopefully, we can see some resolutions to that going forward.

The other thing, in the brewing industry, we have a lot of part-time jobs. Now, we have some really high-quality professional people working in the industry. Our head brewer and the director of brewing operations is a microbiologist. We have another biologist running our lab. The equipment that our staff and people are running is highly automated, and they get paid very well. We have our sales staff.

But, on the flip side of that, a lot of small craft breweries do a lot of hand packaging. People come. They recruit part-time people to come in. They enjoy the experience.

And, if you see a—driving up of, for example, the minimum wage, to a level that makes it very difficult for the small brewer—now the large brewers, they have all the automated packaging equipment in the world. Good for them. We hope to be there at some point.

We, recently, priced out an automated packaging line, on the back-end of our bottling line. And, it was like $250,000. We are fairly close to starting to pull the trigger on some of those components, but, right now, we are utilizing other resources to do that. We use the local sheltered workshop, actually, near where we are, to open our other cases, which are boxes that hold the four six-packs. They open the six-packs. They put them in the box and they ship them to us. It is 19 cents a piece. That is a nice—they need the work. It is good for us. And then, our volunteers, sometimes—but a lot of times we are paying these people. And, you drive the cost of that—I mentioned that, in 1873, there were over 4,000 breweries. When Potosi shut down, in 1972, they were one of the last ones to be able to sustain themselves. And, there were less than a hundred breweries—operating breweries.

It has completely turned around. And, you have seen a significant impact on local foods. People want to know where their products are being made and we are, probably, approaching 4,400 to 4,500 breweries. This thing will reverse itself, and we will start going back in the other direction—unless there is reasonableness put into any of the legislative initiatives that are out there. And, the consumer will, ultimately, decide whether a product is good or bad. If you are producing a good product and if you try to regulate a good product, you are only going to drive out the competition.

Senator ERNST. We are getting a little upside-down on rules and regulations. Mr. Vaughan, do you have any additional comments on any rules that we have not touched on, today?

Mr. VAUGHAN. I would like to have some regulation and some funding to get us back to holding the individual accountable for their own actions, disciplines, and all of the things that made this country great. I believe we still are a great company, but, every time I turn around, I am adding additional company resources to try to get things done. If the individuals could be held accountable through all of the systems, there would be a lot less overhead.

Does that make sense?

Senator ERNST. It does make sense.

Mr. VAUGHAN. It just seems like I spend an inordinate amount of time—compared to 20 years ago—on those kind of subjects.

I just went through an unemployment hearing. The gentleman, unfortunately, was not doing what we asked him to. After the third time, we terminated him. We lost the unemployment, because there was some policy that we did not have in place that we, supposedly, were supposed to have in place—over and above the current handbook we have. And so, he got through the system one more time and was afforded economic benefits at the expense of society—specifically, businesses. And, that just does not seem right.

Senator ERNST. I think that the outside compliance is also a great point. There are so many rules and regulations out there, whether it is through the human resources (HR) channels, whether it is through PSM, or whatever it might happen to be, that a lot of companies have a very difficult time even keeping up with compliance, as far as what is out there and what must be done by—whether it is codified in law or whether it is, actually, a rule or a regulation, through a specific Agency. That is a really great point.

And, I will close with you, Mr. Zimmerman.

Mr. ZIMMERMAN. Yes. Thank you. And, Dr. Williams hit on the one that I want to highlight a little bit more. And, that would be WOTUS. The thing that, as I look at it—as it would come back to Wisconsin, it would be up to the interpretation of the local officials—and it is very difficult to find uniformity in it.

And, the other issue that it touches on is that the overreach of WOTUS would amount to—if they used a 1,500-foot setback from every "waters of the United States," it would take 65 percent of the land. It would include 65 percent of the land that we are farming, now, in the State of Wisconsin. And, if they did the 4,500-foot setback, it would be, like, 93 percent, so it would be—they could then do with that what they pleased, for whatever reason, and we would lose control.

You might as well ask, "What private property rights do we have?", if that is allowed to continue. And so, that is a true threat to what I see as having the room to be able to enjoy our way of life.

Senator ERNST. And, thank you for that, Mr. Zimmerman. And, here in Iowa, with the expanded definition of WOTUS, it would cover 97 percent of the land mass in Iowa. In Missouri, I know Senator Blunt has stated that it would cover 99.8 percent of Missouri—where you would have to go through Federal Agencies to get permits to do work on your own property.

So, thank you for that.

Chairman JOHNSON. Of course, some of those permits can take more than 2 years to obtain and can cost over $200,000 to obtain as well. We talk about trying to be globally competitive. Why are we losing our manufacturing base? You take 2 trillion dollars, divided by an 18 trillion dollar economy—that is an 11-percent cost on all of our products. That makes us globally uncompetitive.

Mr. Fritz, I grew up underneath—just right below the Mankato Brewing Company. My dad was the general manager. I had my own beer stein and hospitality. So, I grew up in sort of the heyday—at least in modern times—of smaller breweries. There are all kinds of them. And, we watched that. My dad ended up becoming Treasurer of the Missouri Synod Lutheran Church, up in Minneapolis, Minnesota, and got out before that brewery closed. Now, we see this explosion, again, of small craft breweries, which I just love to see. But, again, we are talking about "small versus big" and you are, certainly, concerned about the problem of being able to compete as a small brewery against the big guys.

Trust me, I have been in Miller Brewing Company. I have seen those unbelievable high-speed filling lines—and an enormous operation. And, I am looking around, thinking "Where are the people?"

It is all automated. And, that is the point I wanted to make. You were talking about a $15 minimum wage. If you combine a $15 minimum wage with these artificially low interest rates—and I have been in the manufacturing sector. I have made investment decisions on millions of dollars. If the cost of capital is that unbelievably low and you artificially drive up the cost of labor, what does that result in?

Mr. FRITZ. It is going to result in a lot of the breweries having to close. And, the National Brewery Museum is celebrating the history of all of those breweries, like the one your father was running.

And, we do not want our museum to be loaded with all of the past stories and memorabilia of the breweries, today, if they begin to close again.

Chairman JOHNSON. Does it not also—because you were talking about, potentially, buying automated packaging material?

Mr. FRITZ. Yes.

Chairman JOHNSON. Packaging lines?

Mr. FRITZ. Yes.

Chairman JOHNSON. So, it makes it a whole lot easier, when capital is really cheap and labor starts getting a lot more expensive, if you are worried about job growth and if you are worried about providing opportunities—for example, for people in the inner city of Milwaukee, where you do not have the hope and you have despair, because they do not have the employment opportunities—the last thing you want to do is to increase the cost of the labor when you have low interest rates, correct?

Mr. FRITZ. Absolutely.

Chairman JOHNSON. You also talked about the sheltered workshops. And, first of all, God bless you for using those. I have gone to visit so many in the State of Wisconsin. You see, these are individuals with mental and physical disabilities, who have the opportunity to get together in a working environment. It is their family. They spend—rather than sitting in their apartment, they are there at work. The only way that is economically viable, though, is for a subminimum wage. In order for you to pay a reasonable price—a competitive price, because you are competing with bigger companies with all of the automation and you are competing globally—so the only way you can access those sheltered workshops is if, basically, those operations can have a subminimum wage—so they can offer you a product or service that is competitive, correct?

Mr. FRITZ. Absolutely. And, the local sheltered workshop was a little nervous when they heard we were pricing out automated packaging equipment. But, in the brewing industry, variety packs are very popular. It takes quite a machine to put a variety pack together. So, I assured them that, for years to come, they will have plenty of work to do, as we move forward to different levels of success.

Chairman JOHNSON. Are you aware that there are elements, in this country, that are trying to get rid of the subminimum wage for those types of organizations? Basically, they are trying to put those businesses out of business that provide that—again, those that provide that experience for people with disabilities—because we are hearing that as well.

Mr. FRITZ. They should all be required to go and experience a sheltered workshop and see the value and the joy that is brought to those individuals.

Chairman JOHNSON. Dr. Williams, a number of times now, I have heard the word "uncertainty." I am not sure that is included in that 2 trillion dollar cost. But, again, coming from the business world, as somebody who has made investment decisions, the first thing you want is some measure of certainty—or as much certainty as possible. Business is risky enough. You have to compete against your competitors. You do not know what they are up to. You do not know what products and you do not know what breakthrough innovations there are. So, you already have, baked in the cake—when competing in a free-market system—a high level of uncertainty.

Talk about the cost that the Federal Government is throwing on top, in terms of added uncertainty.

Dr. WILLIAMS. The 2 trillion dollars that we estimated was, basically, reduced innovation in the United States. And, the uncertainty—due to regulations—that is the cause of that. That is what we actually went out and estimated.

What we see around the world is, we see that America is dropping back—is becoming a more and more regulated country, relative to our competitors. They are going forward. They are instituting lots of different programs to reform, particularly, their regulatory process. We can talk a lot about individual regulations—and there are a lot of bad ones—but, until we get the process right, we are going to continue to get these bad ones.

And, what we see in other companies—excuse me, in other countries—they are recognizing that—they are reforming their regulatory process. I know we have had a lot of activity over the last, particularly, 4 years or 5 years to do this, but so far we have not gotten anywhere.

Chairman JOHNSON. Can you address the cost-benefit analysis that these Agencies go through? I know President Obama has issued some Executive Orders (EOs) that remind me of the MasterCard commercial: "This is priceless."

So, the benefit is always priced out as priceless and the cost is grossly understated. Can you just kind of speak to that phenomenon?

Dr. WILLIAMS. Sure. I did it for 27 years in the FDA—as well as supervised it. I can tell you that, what, generally, happens is, whoever is in charge makes a decision. Everybody knows what that decision is. Then, the pressure gets put on the economist, saying, "Go make a cost-benefit analysis that makes my decision look good." That happens far too frequently.

If you actually do an analysis that does not make it look good, they will just ignore it, and then you will never get promoted. But, that happens.

But, I have to tell you, President Obama has said, what every President has said, going back to Jimmy Carter—that it is ridiculously hard to control the giant Executive Branch.

President Carter went in and said—going into office, he said, "This will be my biggest challenge, to control this Executive Branch." Coming out, he said, "This was a lot harder than I thought it was going to be. That was my biggest problem."

Chairman JOHNSON. Government wants to grow. And, it is extremely good at growing. What I am going to do, before I close out the hearing, is allow you all an opportunity to kind of give a closing comment, based on the discussion here. But, I would, certainly, like to give Senator Ernst another opportunity to ask questions, if you have any.

Senator ERNST. I think we can go ahead and hear their closing statements and then we will conclude.

Chairman JOHNSON. We will start with Mr. Zimmerman. Do you have any closing comments?

Mr. ZIMMERMAN. Thank you. Yes. One of the things that I would add is how much opportunity we have missed, because of overregulation and—and different things that could be solved—problems, diseases, pests, and things like that—that could affect many other species—many other crops and whatnot, if the cost of the regulation process did not chew up so much patent time and if there was not so much time involved in getting it deregulated.

And so, we miss out on a lot of opportunities to be able to develop and advance more technology. So, this overregulation is—I see it as a huge cost—and we are driving consolidation, within our industry, because only the very large industries—or groups—companies can afford a research platform and also sustain a fall of 13-, 14-, or 15-year research—and wait for the deregulation of product—to come out on the market. And so, when that happens, it is just a snowball effect back down to us. And, we see that the consolidation will continue with the farms also.

Chairman JOHNSON. You are really talking about the opportunity cost of regulation. If you are an owner or a manager, you only have so many hours in the day. And, if a big chunk of your time is spent complying with Federal regulations, that means you are not spending time on improving your products, innovating, or creating.

We had the Chancellor of the University of Wisconsin (UW)–Madison come into my office the last 2 years. The number one thing she was complaining about is the regulatory burden. She came in this year, with a study, commissioned by other research universities, that said that, on Federal grants—again, these are grants that are given to universities to push the bowels of science and human knowledge—to cure diseases—42 percent of every researcher's time—of those researchers' time spent on those grants is spent complying with the Federal regulations attached to the grants—42 percent.

That is an enormous opportunity cost right there. Mr. Vaughan.

Mr. VAUGHAN. Thank you very much.

It feels like you both have a very good handle on the challenges that we need to face—things we need to do. I concur 100 percent with what is being said about regulation becoming a burden. I spend more and more of my time on it and it takes away from our customers, our employees, and the future productivity of our organization. This money needs to stay where it is generated. In this case, in Iowa. We are operating in eastern central Iowa—it is not sent off some place else and redistributed in some other manner.

We have experienced that with the Patient Protection and Affordable Care Act (Obama care). We have experienced that with some of the labor laws that are changing.

And, one challenge we have is operating in a rural environment with our farmer-customers, who do not have to adhere to much of any of that—they do not have much time for it. So, it instantly pits us against our most important aspect—which is our customers.

So, thank you for your time. Thank you for your dedication. Keep up the good work.

Chairman JOHNSON. By the way, those dollars are shipped off some place. It is called Washington, D.C. Washington, D.C. is a boomtown.

Mr. Fritz, do you have any closing thoughts?

Mr. FRITZ. The success of our industry, in the craft beer segment, is all about quality. And, every individual entrepreneur that is in that industry segment is doing everything they can to make sure that they are producing a quality product. And, they have many different styles of beer—and some people may not like an IPA, and some people do. But, the quality of the product, in making it fit the style of the beer that they are trying to brew, is at the top of their minds when they are out there. If their costs continue to elevate, where they cannot be competitive—and the consumer will pay for quality. That is evidenced, every day, with the choices that are being made when you walk into the retailer and buy that product.

But, if it gets pushed further, then what will happen—and we are seeing it already—there are a lot of large breweries out there that, on a very regular basis, are buying up breweries in the craft segment. They want to play in that market. And, it is, probably, a smart business choice for them, because they know that it is being very well perceived. But, as they individually get picked off and picked off—and it was mentioned, with one of the co-ops, that, if they cannot compete and comply, then they need to move on. And, as long as there are buyers out there—so the success of this industry depends on helping them stay in business.

And, they will take care of the quality. But, just do not overburden them with costs that are unnecessary.

Chairman JOHNSON. As a plastics manufacturer, I would have loved to have been a monopolist. But, because I had to compete, my prices were lower and my quality was higher—as was my dedication to customer service. The larger the number of small businesses, the greater the competition. And, you have all of those benefits of a free-market system. Dr. Williams.

Dr. WILLIAMS. Yes. As I mentioned, I would love to see better cost-benefit analysis done in the U.S. Government—more frequently done and paid attention to. But, cost-benefit analysis does not cover a lot of the cost of our regulatory stakes. It does not cover—for instance, we are never going—to begin with, small firms and medium-size firms that closed, it does not cover the products that were lost or the products that were never produced to begin with. It does not cover jobs lost and, certainly, it does not cover the enormous cost, now, of just dealing with Washington, D.C.

I think it would be better if manufacturers would be able to focus on running their own businesses and not having to focus so much time on dealing with Washington, D.C. That is very costly.

Chairman JOHNSON. Thank you, Dr. Williams. Senator Ernst, would you like to make a closing comment?

Senator ERNST. Yes. Again, our panelists—I want to thank you for taking time out of your schedules to be with us, today. And, thank you for presenting your personal testimonies, because they are very valuable—not only to Senator Johnson and I, as we take your thoughts to Washington D.C. and share them with our other Committee Members, but it is important to our constituencies as well. We know that there are many out there that share those same stories that you do, about government overreach and the cost of regulations, in doing business.

And, we know that, as you have demonstrated, today, those overreaching rules and regulations are burdening our employers and our businesses. And, we are not growing the economy like we could be and should be, here in the United States, because of that.

So, I know that Senator Johnson has been very diligent in approaching how we can reform the rules and regulations and—and do it in a way where we are involving stakeholders—because, oftentimes—just as some of the examples that were given, today—those stakeholders are not involved in the process. And, these Agencies are not following original Congressional intent. So, we have to get back to that. This is valuable information that I will be taking back and working with the Committee on.

And, finally, Senator Johnson, thank you for being such a great leader on these issues. Senator Johnson is the Chairman of our Homeland Security and Governmental Affairs Committee. And, your work has really been noticed by me, and I appreciate it so much, because, if we do want to grow our economy, here in the United States, these are the issues that we need to be focusing on. So, thank you for taking the time to come to Iowa to share your thoughts with our constituents.

Chairman JOHNSON. Thank you for inviting me. This was Senator Ernst's idea, and it was a great idea for what, I think, has been just a great hearing.

I do want to thank everybody in the audience for coming and showing interest. Obviously, our witnesses have great testimonies and have given great answers to our questions.

Thank you to the members of the press, for coming here and highlighting this.

I always have said that overregulation is the silent killer. It crushes innovation. It crushes small businesses. And, it crushes the kind of competition that we need in order to grow our economy, which is the number one solution. If we want opportunities—whether in the inner city of Milwaukee or anywhere in Iowa or Wisconsin—we need to grow our economy. And, this enormous regulatory burden is making it very difficult for businesses to grow and to create those good-paying jobs that we all want.

So, again, I just want to thank everybody for participating in this. It was a great idea for a hearing. I love coming here, to Dubuque—beautiful part of our State and your State. I am going to enjoy the drive back.

With that, the hearing record will remain open for the next 15 days until September 1, at 5:00 p.m., for the submission of statements and questions for the record.

This hearing is adjourned.

[Whereupon, at 1:22 p.m., the Committee was adjourned.]

APPENDIX

Opening Statement of Chairman Johnson
"From Crop to Craft Beer: Federal Regulation's Impact on America's Food and Agriculture"
Wednesday, August 17, 2016

As submitted for the record:

Good morning and welcome.

In Washington, it's common practice to leap before looking. Policymakers don't often like to do the hard work of laying out the reality of a problem and understanding the actual impact of various options before jumping to a conclusion. They often act based on intended outcomes, without regard for the real-world consequences of policy decisions.

This is especially true for federal regulations. We often assume the benefits without really attempting to understand the costs. We start with the shared goals of a clean environment and safe food – things we all agree on – then assume another regulation will help us accomplish those goals. We pile layer upon layer upon layer of new regulations atop the old ones without acknowledging that they may be doing little to improve the environment or make food safer. Worse yet, they may even be counterproductive to our shared goals.

We've reached a point where the annual regulatory burden is around $2 trillion, which translates to approximately $14,800 per American household, with even more regulations in the pipeline. The massive regulatory bureaucracy is a dead weight to the economy, making it harder for businesses to expand and hire, individuals' incomes to grow, and entrepreneurs to innovate.

Today we're looking at just one small part of that regulatory burden imposed on the food and agriculture sector – and as Wisconsin's senior U.S. Senator, it is natural for me to categorize beer as a food item.

This hearing is an opportunity to hear directly from the folks who work tirelessly to grow, produce, and distribute the products we depend on every day. And it's a chance to understand how regulations can too often undermine the very objectives we all desire.

I'm especially happy to be here in the home state of my colleague, Sen. Joni Ernst, where we'll have an opportunity to hear from constituents from this very region. Thank you all for being here today. I look forward to your testimony.

Opening Statement of Senator Ernst
"From Crop to Craft Beer: Federal Regulation's Impact on America's Food and Agriculture"
Wednesday, August 17, 2016

Thank you Chairman Johnson for holding this field hearing, and a big thanks to all of our panelists for taking time away from their busy schedules to testify on this important topic.

Today we will be exploring a few specific regulatory issues, but as we do this, keep in mind that they are symptoms of a broader problem.

This Administration has made a habit of acting unilaterally; skirting the rule-making process, ignoring congressional intent, and taking broad liberties with the regulations they put forward. This is a large part of why the Administration has lost the trust of the American people. Too often I hear from Iowans that they feel like the government is out to get them.

This is a refrain I hear especially from farmers, ranchers and land owners, and today I want to focus on some regulations that unfairly impact these groups.

The memorandum on retail exemptions (Process Safety Management of Highly Hazardous Chemicals and Application of the Retail Exemption) issued by the Department of Labor in July 2015, reclassified the majority of traditional farmers cooperatives in Iowa and Wisconsin.

These farmer-owned businesses warehouse and distribute crop nutrients, including anhydrous ammonia, at thousands of sites across the Midwest.

In fact, Iowa uses more anhydrous ammonia as a crop nutrient than any other state, as it is the most cost effective form of Nitrogen for farmers to utilize in producing the affordable food and fuel for our growing world population.

The changes OSHA has made will be difficult for the companies to implement, and will yield little if any safety benefits. Further, they will cost these retailers tens of thousands of dollars per site, costs that will ultimately be passed on to the family farms they serve.

Unfortunately, since the Department of Labor didn't go through the formal rulemaking process, these key stakeholders weren't afforded the opportunity to comment on the impact these changes in regulation will have on their livelihoods.

When Congress passed an annual spending bill last December, we spelled out that OSHA could not enforce their memo until they went through the proper notice-and-comment rulemaking process. But a week later OSHA, ignoring congressional intent, simply stated it would delay enforcement until the spending bill expired – this coming October 1st.

All the while this issue is tied up in the DC Court of Appeals, so in May OSHA informed the court (and sent a letter to every member of Congress) that they intended to go through the rule-

making process after all, but they would not rescind the memo while the multi-year rule-making process takes place.

This is the kind of "logic" that can exist only inside of the D.C. bubble. The agency expects all farmers coops to be in compliance this October, while they belatedly go through the process to "create" the rule and gather feedback from the stakeholders who will bear the brunt of this misguided guidance.

Another imprudent move from this over-zealous administration came this past June, when the Environmental Protection Agency (EPA) released its 520 page draft ecological risk assessment report of the herbicide atrazine. Much like their 297 page WOTUS rule, this too threatens to increase costs for the men and women who are the bedrock of our safe and affordable food system.

The EPA's report indicates that the routine use of atrazine could be harmful to animals and our ecosystem. The report seems to ignore the nearly 7,000 scientific studies over the past 50 years which show the safety of atrazine, which is used by over 400,000 corn, sorghum and sugar cane growers across the U.S.

A primary concern I have with this report is that it is based in large part on studies that the EPA's own Science Advisory Panel called "flawed" just four years ago. It appears the Administration may once again be cherry-picking the data they find most convenient to support their overreach.

A 2012 University of Chicago study concluded that banning atrazine could cost corn growers an additional $59 per acre in input costs. The EPA has even estimated that not having access to this herbicide would cost corn growers $28 per acre in reduced yields. All of this at a time when producers are looking at $3 or lower corn, well below the cost of production.

I also wanted to mention that just last week a manufacturer in Cedar Rapids announced it was cutting jobs due to regulations. McLanahan/Universal of Cedar Rapids, maker of heavy equipment for mining said it is eliminating 15 jobs, and according to their President and CEO it is "a direct result of the Obama administration and regulations that he has put in place that has crippled the industries we serve."

All of these regulations follow a similar theme; one of bigger government, of disregard for common sense, and a Washington-knows-best mentality. It is the responsibility of this committee to keep an eye on an Administration run amok, and push back where we can.

Thank you Chairman, and I will yield back to you.

Testimony of Jim Zimmerman

National Corn Growers Association

Before the Committee on Homeland Security and Governmental Affairs

U.S. Senate

August 17, 2016

Chairman Johnson, Ranking Member Carper, and members of the Committee:

Good afternoon, my name is Jim Zimmerman and I am board member for the National Corn Growers Association. I also serve as a director for the Wisconsin Corn Promotion Board. I would like to thank the Committee for inviting me to testify at this hearing on regulations affecting U.S. agriculture.

I'd like to begin my testimony by telling you a little bit about myself and my operation. I'm a Wisconsin grower with 2700 acres of corn, soybeans, and wheat, which are grown using no till and strip till, depending on the crop. I am a third generation farmer and I plan for my son Aaron to take over the farm one day. Every farming decision I make is motivated by what is best for the long-term viability of the farm. From the crops we grow to choices in tillage practices, everything is done with an eye on the future.

A key consideration for every farmer is which crop protection tools to use to ensure we raise a successful and healthy crop. One of the most important tools I use on my farm is the herbicide atrazine - and I am far from alone in this regard. Atrazine is one of the most widely used herbicides in the United States - used on well over half of corn and sorghum acres and on as much as 90% of sugar cane acres. Many specialty crops rely on the herbicide as well. Applying atrazine to control weeds allows farmers to use conservation tillage, a farming method that leaves the stubble or residue from the previous crop to cover the soil's surface after planting. According to United States Department of Agriculture, by leaving the crop residue and reducing or eliminating tillage trips, farmers are able to protect the soil from water and wind erosion, conserve moisture, reduce runoff, improve wildlife habitat and limit output of labor, fuel and machinery. In fact, conservation tillage reduces soil erosion by as much as 90 percent, compared to systems using intensive tillage. However, the elimination of tillage means that the farmer must rely on herbicides to control weeds. Atrazine is the most widely used herbicide in conservation tillage systems. Without atrazine, farmers would have to use higher quantities of other herbicides that are less effective while increasing tillage and threatening soil heath and nutrients. This all impacts the bottom line.

Atrazine has been used in this country for more than 50 years. During that time, more than 7,000 scientific studies have been conducted on the safety of this herbicide to both

the environment and to humans. The evidence overwhelmingly confirms atrazine is safe. The World Health Organization and regulatory agencies in Australia, Canada, and the European Union have all come to the same conclusion. That is why NCGA was shocked to learn of EPA's findings in the preliminary ecological risk assessment that was released this past June as part of the standard 15 year rolling re-evaluation. Through the use of highly questionable studies, EPA arrived at an aquatic Level of Concern of 3.4 parts per billion, a two thirds reduction from the current level of 10. Scientific evidence points to a safe aquatic life Level of Concern at 25 parts per billion or greater. A Level of Concern of 3.4 is practically unachievable and would represent a de facto ban on the use of atrazine were it to become the standard.

EPA's conclusions rest on serious scientific errors and flawed interpretations, and are inconsistent with many of the Agency's previous conclusions and assessments by other regulatory agencies around the world. Several rigorous, high-quality scientific studies were discounted by the draft ecological risk assessment in favor of studies found flawed by EPA's own 2012 Scientific Advisory Panel (SAP).

By EPA's own estimate farming without atrazine would cost farmers an additional $28 per acre. A 2012 University of Chicago study puts that number closer to $60 per acre. A loss of atrazine would have an additional negative consequence in controlling herbicide resistant weeds. The National Corn Growers have advocated for farmers to implement multiple modes of action as the key part of weed resistance management. Atrazine is one of these essential modes that make this Best Management Practice possible.

If atrazine, one of the most studied herbicides with a proven track-record of over 50 years of safe use, is experiencing such difficulty in re-registration the future does not bode well for other crop protection tools. The cornerstone of our regulatory process must continue to be the best science and data. Flawed risk assessments like the one at hand threaten the integrity of the review and regulatory process as well as farmers' ability to maintain high crop yields and reduced soil runoff through the use of atrazine. NCGA and our farmer members are submitting comments to EPA on this document and we remain hopeful that EPA will return to a review process that is based on the best available science. The credibility of the Agency and the long-term sustainability of U.S. agriculture depends on it.

Again, I thank the committee for this opportunity to testify and for holding this hearing on a topic that is critically important to this nation's farmers.

Document # 1

"From Crop to Craft Beer: Federal Regulation's Impact on America's Food and Agriculture."
Innovative Ag Services
August 17, 2016

Innovative Ag Services (IAS) currently invests 35,530 minutes, 593 hours per year training our 374 full time and part time employees to safely handle anhydrous ammonia. This time totals $17,765 and computes to $.64/ton of anhydrous ammonia sold. We have a good track record of handling anhydrous ammonia. When employees, truckers and customers follow our current safety programs, these policies and procedures have proven effective.

IAS, along with its safety consulting firm and their engineering partner selected an IAS location to work through the process of determining the cost of implementing PSM. Engineering was estimated by a PSM qualified engineer. These cost estimates are outlined in Document #1. The upfront estimates total $26,856 per location and include the cost of IAS personnel. Document #3 and #4 outline the detail of each segment of PSM compliance summarized on Document #1.

Document #2 is our estimate of the ongoing annual per location costs to perform the PSM requirements. This annual cost computes to $5,275 per location. We noted both on Document #1 and Document #2 that these estimates do not include the recent proposed EPA rule changes.

Document #3 summarizes the upfront cost and annual cost of implementing PSM. Additionally I have computed the cost on a per ton basis per current IAS location. Please note that the total estimated costs for IAS are $725,112 or $28,856 per location. I have amortized the up front costs over 5 years and and added the ongoing annual costs to compute a total annual cost of $10,646 per location. This computes to $10.31/anhydrous ammonia ton on all IAS tons sold this year. I do not believe it is economically prudent to invest the capital resources to make every IAS anhydrous ammonia location PSM compliant. If we would elect to not invest more than $10/ton annually in PSM compliance costs, we would close 59% (16) of our current anhydrous ammonia facilities.

In summary:
Today we are spending $.64/ton to invest in our current anhydrous ammonia training. PSM will require IAS to spend an additional $10.31/ton, $287,641/year. We do not believe the implementation of PSM will improve our safety performance.

Our current operations with anhydrous ammonia comprise filling our tanks during a 2 week time frame prior to the fall (late November) and spring (April) application period. During the fall and spring seasons, we operate these anhydrous ammonia facilities for 2 to 3 weeks. The facilities set idle the balance of the year. In summary, we operate these facilities 2.5 months per year, 20% of the time. They set idle for 80% of the year.

We will be forced to close 16 of our 27 plants (59%), affecting 389 (35%) of our customers. This will affect our other business with these same customers. This will put more anhydrous ammonia loaded trips and miles on the roads, thereby decreasing current road safety. If these anhydrous ammonia tons are replaced with urea ammonium nitrate solution, we will add 1,552 tandem truck loads to the highways in the already busy 3 week spring planting season.

We strive to create a save work environment for our employees through extensive ongoing training. Ineffective regulations, like PSM, will not create a safer work environment. IAS does business in a very competitive environment where margins are very thin. We have significant concerns with those competitors in the anhydrous ammonia business who do not have to or will choose not to make these significant PSM investments necessary to comply. The cost of compliance with PSM will create an unwarranted competitive disadvantage to our farmer cooperative.

Thank you very much.
Rick Vaughan, CEO - Innovative Ag Services

Innovative Ag Services
August 17, 2016

Document # 2

IAS PSM LABOR AND COST WORKSHEET - UPFRONT SUMMARY:

Activity	Hours to Complete	GROUP RESPONSIBLE			ESTIMATED TOTAL COSTS	
		Consultant	Engineer	IAS	Consultant/ Engineer	IAS
Introduction	0.25	X			$31	$0
Current CDX Submittal	19.40	X		X	$2,425	$0
Management Flow Chart	12.00	X		X	$875	$600
Off-site Consequence Analysis (WCS &ACS)	2.60	X			$325	$0
Five Year Accident History	0.34	X			$42	$0
Process Safety Information	26.09	X	X	X	$3,340	$0
Process Hazard Analysis	32.00	X	X	X	$4,000	$2,400
IDALS Anhydrous Ammonia Facility Checklist	0.34	X		X	$42	$0
Operating Procedures	1.00	X	X	X	$125	$0
Training	14.20	X	X	X	$1,775	$900
Mechanical Integrity (TOS)	25.0	X	X	X	$3,125	$300
Compliance Audit	14.00	X		X	$1,750	$0
Incident Investigation	0.34	X		X	$42	$0
Management of Change	9.00				$1,125	$0
Pre-start Up Safety Review	0.34	X	X	X	$42	$0
Employee Participation Plan	7.00	X		X	$875	$0
Hot Works	0.34	X		X	$42	$0
Contractors	7.00	X		X	$875	$0
Emergency Response Plan	5.40	X	X	X	$675	$0
Site Pictures	1.00	X			$125	$0
Supplies and misc						$1,000
Totals	177.62				$21,656	$5,200

Total PSM estimated cost per location - Upfront	$26,856

Does not include recent EPA proposed rule changes

Costs basd on current IAS location:

NH3 Total capacity (gal)	92,052
NH3 Storage Tank Size (gal)	26,000
	12,000
# of nurse tanks	55

Innovative Ag Services
August 17, 2016

Document # 3

IAS PSM LABOR AND COST WORKSHEET - UPFRONT DETAIL:

ACTIVITY
Introduction
Current CDX Submittal
Management Flow Chart
Management System (Person Responsible or Title)
Implementation of PSM
Submittal of the RMP
Safety Information
Maintenance
Operating Procedures
Training
Process Hazard Analysis
Compliance Audit
Accident Investigation
Emergency Plan
5-year Accident Report
Off-site Consequence Analysis
Off-site Consequence Analysis (WCS &ACS)
Analysis Map
Population Computations
Facility Satellite Map
Five Year Accident History
Spill Reports
Process Safety Information
Process Chemistry
Block Flow Diagram
Maximum Intended Inventory Worksheet
Safe Operating Limits
Safe Upper and Lower Limits- worksheet
Deviation Consequences
Materials of Construction
Information located in the Equip Info Mngr Section
Piping and Instrument Diagrams (P&IDs)
Electrical Classification
Info on all electrical wiring/equipment for this design
Design Codes and Standards
Worksheet for standards used
Relief Systems
Worksheet for relief safety systems in place
Safety Systems
Worksheet for safety systems in place
Inadvertent Mixing
Ventilation System
SDS Documents

Innovative Ag Services
August 17, 2016

Document # 4

IAS PSM LABOR AND COST WORKSHEET - UPFRONT DETAIL: (continued)

ACTIVITY
Process Hazard Analysis
IDALS Anhydrous Ammonia Facility Checklist
Operating Procedures
Training
IA NH3 Awareness
Operator Training
PSM Training for employees
Mechanical Integrity (TOS)
Maintenance Records/Inspection
List of each piece of equipment in the process
Master Equipment List
All maintenance/specs manuals from manufacturer
Data Plate Information
U1-A form for storage tank
Serial numbers
Expiration dates for hoses or other equipment
NTIP sheets for nurse tanks
Maintenance records
Testing
Maintenance Schedule (Written)
Maintenance
Inspection
Testing
Compliance Audit
Incident Investigation
Management of Change
Work orders and approval before change is made
Documentation of change
Update PSM accordingly
Pre-start Up Safety Review
Employee Participation Plan
Hot Works
Forms
Procedures
Contractors
List of Approved Contractors
OSHA 300 injury log for contractors
Documentation of training for contractor employees
Emergency Response Plan
Site Pictures

Innovative Ag Services
August 17, 2016

Document # 5

IAS PSM LABOR AND COST WORKSHEET - ANNUAL:

Activity	HOURS TO COMPLETE	GROUP RESPONSIBLE			ESTIMATED TOTAL COSTS	
		Consultant	Engineer	IAS	Consultant/ Engineer	IAS
Introduction	0.25	X		X	$31	
Current CDX Submittal	1.00	X		X	$125	
Management Flow Chart	0.50	X		X	$63	
Off-site Consequence Analysis (WCS &ACS)	0.50	X		X	$63	
Five Year Accident History	0.25	X		X	$31	
Process Safety Information	1	X	X	X	$125	
Process Hazard Analysis	5.00	X	X	X	$625	
IDALS Anhydrous Ammonia Facility Checklist	0.50	X		X	$63	
Operating Procedures	2.00	X	X	X	$250	
Training	1	X		X	$125	
Mechanical Integrity (TOS)	2	X	X	X	$250	
Compliance Audit	0.50	X		X	$63	
Incident Investigation	0.50	X		X	$63	
Management of Change	2.00	X	X	X	$250	
Pre-start Up Safety Review	0.50	X	X	X	$63	
Employee Participation Plan	3.00	X		X	$375	
Hot Works	0.50	X		X	$63	
Contractors	0.50	X		X	$63	
Emergency Response Plan	0.75	X	X	X	$94	
Site Pictures	0.50	X		X	$63	
Annual training	20.00	X		X	$375	$850
Supplies and misc						$250
Software Cost Annually per location						$956
Totals	42.75				$3,219	$2,056

Total PSM estimated cost per location - Annual	$5,275

Does not include recent EPA proposed rule changes

PSM Requires an Annual Audit of All PSM Components.
This audit would be completed by the combined work from Consultant, Engineer, and IAS.

Innovative Ag Services
August 17, 2016

Document # 6

IAS cost summary estimates to comply with PSM:

Total IAS PSM costs - Upfront	$725,112
Total IAS PSM costs per location (27) - Upfront	$26,856
Total Upfront PSM costs ammortized over 5 years	$5,371
Total IAS ongoing annual PSM costs per location	$5,275
Total annual cost per location	$10,646

IAS Location GL#	Customers	Annual tons	PSM annual cost/ton	
Location 46	136	3,219	3.31	
Location 11	61	2,079	5.12	
Location 15	71	2,078	5.12	
Location 25	98	1,945	5.47	
Location 13	65	1,434	7.42	
Location 19	72	1,465	7.27	
Location 38	53	1,294	8.23	
Location 32	34	1,289	8.26	
Location 17	46	1,230	8.66	
Location 26	63	1,195	8.91	
Location 35	29	1,114	9.56	
Location 21	50	974	10.93	Cutoff point
Location 39	24	945	11.27	
Location 24	34	896	11.88	
Location 36	48	890	11.96	
Location 45	35	864	12.32	
Location 48	29	731	14.56	
Location 6	23	680	15.66	
Location 22	17	598	17.80	
Location 30	21	546	19.50	
Location 19A	5	340	31.31	
Location 40	26	499	21.33	
Location 47	20	479	22.23	
Location 23	26	461	23.09	
Location 33	19	359	29.65	
Location 41	12	254	41.91	
Location 29	4	20	532.30	
Totals	1,121	27,878	10.31	

27 locations

Estimated eliminated locations based on $10/ton limit of additional cost

total	**393**	**9,536**
%	**35%**	**34%**

16 locations - 59% of total locations

Testimony of David Fritz

Potosi Foundation, Inc.\Potosi Brewing Co.

Committee on Homeland Security and Governmental Affairs: US Senate

12:00 PM (CDT) Grand River Center in Dubuque, Iowa

August 17, 2016

Chairman Johnson, Ranking Member Carper, and members of the Committee:

My name is Dave Fritz, volunteer president of the Potosi Foundation, Inc. and volunteer director and general manager of the Potosi Brewing Company. The Potosi Foundation was organized in 2000 to save the original building which housed the Potosi Brewing Company built in 1852 and shut down in 1972. After a $7.5 million renovation the Potosi Brewery reopened in 2008 and is the home of the National Brewery Museum, an interpretive center for the Great River Road, brewery and brew pub. In 2010 we took beer to retail and because of the increasing beer sales; we needed to move the brewery outside of the Potosi Foundation, Inc. and formed a new company named the Potosi Brewing Company, Inc. The Potosi Foundation, Inc. is the sole shareholder and owner of the Potosi Brewing Company.

I am also the president and CEO of TRICOR Insurance, an independent insurance agency with 28 locations in Wisconsin, one in Iowa and on in Minnesota.

From 2010 to early 2015, we worked with an outside brewery and contracted the production of most of our beer that went to retail. In early 2015 we opened our new $6 million production facility and are now brewing and packaging all of our beer in Potosi. The facility includes bottling, kegging and canning capabilities. We are also contract brewing and packaging for other breweries. We wanted the manufacturing jobs back in southwest Wisconsin and also wanted to control 100% of our quality.

Potosi produces six styles of beer year round and over 10 seasonal, limited addition and barrel aged beers. We also produce and sell draft and packed root beer. We distribute our products in Wisconsin, Iowa and Illinois through 13 beer wholesalers.

The craft beer industry in Wisconsin and countrywide has experience remarkable growth in recent years. At the end of 2015 there were 4,269 breweries in the US representing a 15% growth over 2014. In November of 2015, the number of breweries exceeded the prior peak which was 4,131 in 1873. In 1978 the number dropped to 89 operating breweries in the US. The rate of growth is slowing a little in 2016.

The economic impact created by the growth of craft beer is significant.

Craft Breweries are a rare manufacturing success story and is fueled by the farmers providing our ingredients. 65% of the US barley crop is used by the brewing industry and of that number, 35% to 38% is used in craft breweries. Hops acres planted in the US for 2016 is at 51,000, up from 43,000 over 2015. Family farms providing the highest quality ingredients in the world allowing the craft brewers to produce the highest quality beer in the world. Potosi uses Wisconsin Honey in our root beer, pure lemon juice in our Steamboat Shandy and pure tangerine juice in our Tangerine IPA. The farmer produced products used by craft brewers is very broad.

For the Craft Beer industry to continue to thrive it is important that we are not subjected to regulations which drive up our cost of doing business. The consumer has shown they are willing to pay more for quality craft beer brewed in smaller batches by private business owners.

Some of the issues facing the craft industry include:

The FDA menu labeling issue that stems from the Food Modernization and Safety Act will be very costly to craft breweries. Restaurants with more than 20 locations are required to provide nutritional information of beer and other spirits and the cost of this would likely fall on the brewery to provide. So if Potosi wants to continue providing beer to chain restaurants, we would need to spend an estimated $1,000 per style of beer.

Transparency in labeling allows consumers to make informed choices when purchasing beer. Consumers have an interest in knowing the name of the brewing company or parent corporation that ultimately owns the beer brand. Encouraging all brewers to disclose to consumers their ownership of beer brands, including the name of the parent brewery that owns the brand, on the brand's labeling to enable consumers to make informed buying choices.

Recently the Food and Drug Administration attempted to restrict the spent grain (the by-product after the brewing process) from being used for animal feed. Following a lot of discussion the FDA exempted brewers spent grain so it can be used for animal feed. I believe this was an example of an unintended consequence in the new regulations. This is a good example of how government worked with an industry to resolve what would have been a very expensive for the business owners.

Craft brewers pay $7 per barrel of beer produced in an excise tax. Consideration should be given to reduce this expense to the craft industry. Reducing the federal excise tax to $3.50 per barrel would have saved us approximately $20,000 in 2015. Based on our production forecast we would save $40,000 in 2016 and an estimated $63,000 in 2016. This money would be used to hire new employees and expand our operations. The Craft Beverage Modernization and Tax Reform Act is working its way through congress.

Craft brewing is an innovative industry, growing quickly, hiring people and built by entrepreneurship. Brewers want to make the highest quality product and consumers are very informed and willing to pay for quality. It has thrived because of a light regulatory touch, and we risk swamping that success if we hit the regulatory throttle too hard.

Thank you for allowing me to testify before this group.

Version4

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TESTIMONY

FEDERAL REGULATION OF FOOD SAFETY

RICHARD A. WILLIAMS, PhD
Director, Regulatory Studies Program, Mercatus Center at George Mason University

US Senate Committee on Homeland Security & Governmental Affairs
Hearing: From Crop to Craft Beer: Federal Regulation's Impact on America's Food and Agriculture

August 17, 2016

Chairman Johnson, Ranking Member Carper, and members of the committee, thank you for inviting me to testify on the impact of federal regulations on America's food and agriculture.

Federal regulations affecting food are intended primarily to protect public health by ensuring that food is safe. These regulations affect both the cost of growing and manufacturing food and the ever-changing makeup of the food supply. According to President Clinton's Executive Order 12866, food safety regulations (like all regulations) must be based on "the best reasonably obtainable scientific, technical, economic and other information concerning the need for, and consequences of, the intended regulation."[1] Agencies are also legally responsible for ensuring that the science and analysis within these regulations satisfies quality, objectivity, utility, and integrity requirements.[2] Yet far too often, federal food regulations conform to none of these requirements. As a result, food regulations cost far too much and accomplish far too little, far too often.

My testimony today will touch on these problems with our current food regulation system. I will provide several examples of failed food safety regulations and explain why there are better approaches to solve food safety problems than regulations that try to anticipate every conceivable problem.

FEDERAL FOOD SAFETY MANDATES CAN BE COUNTERPRODUCTIVE

One example of how food safety regulation can cost a lot but deliver little is the most recent expansion of a process control approach called hazard analysis critical control points, or HACCP. The food industry invented this

1. Exec. Order No. 12866, 3 C.F.R. 638 (1993).
2. Office of Management and Budget, "Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies," effective October 1, 2001. The guidelines were mandated by the Consolidated Appropriations Act, 2001, Pub. L. No. 106-554 § 515, 114 Stat. 2763A-154 (known as the Data Quality Act) (2001).

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The ideas presented in this document do not represent official positions of the Mercatus Center or George Mason University.

approach 50 years ago for NASA to use in the space program.[3] HACCP is a system of preventive controls that relies on monitoring and recordkeeping at critical points where contaminants can be detected and eliminated. Following its use in the space program, HACCP was used extensively by food manufacturers before the government got involved. Over the decades before federal involvement, HACCP was successfully implemented where it was needed, but today most food safety failures in processing plants are due to problems with cleaning, sanitation, or management.[4]

Nevertheless, in 2011 Congress passed the Food Safety Modernization Act (FSMA), which "aims to ensure the U.S. food supply is safe by shifting the focus from responding to contamination to preventing it." In fact, regulations promulgated by the Food and Drug Administration (FDA) and the US Department of Agriculture (USDA) have always focused primarily on prevention. FSMA now requires the entire food industry to implement HACCP. [5]

But because HACCP is now a government-run program, it is no longer a firm-run food safety tool. It is now a bureaucratic mandate that generates massive amounts of paperwork that can be reviewed by FDA. In fact, prior to FSMA, FDA and USDA had already mandated HACCP in three different industries.

HACCP REGULATIONS HAVE FAILED IN THREE INDUSTRIES

These three industries are case studies of failed government regulations using HACCP. The first industry FDA imposed HACCP on was the seafood industry. When FDA implemented the first HACCP regulation for seafood in the mid-1990s, the major health hazard related to seafood involved raw shellfish, particularly contaminated oysters from the Gulf of Mexico.[6] The problem for FDA was that there is no "control point" where the contamination can be reduced or eliminated. The HACCP approach failed to reduce seafood contamination because it did not work on products served raw—in fact, despite the regulation, illnesses from oysters in the United States virtually doubled by 2011.[7] Since all sellers of seafood (i.e., fish and shellfish) had to use HACCP regardless, it was mostly a waste of resources.[8] This is an example of why it makes no sense to require everyone in the food industry to use HACCP.

The second industry on which FDA imposed HACCP was the fruit juice industry.[9] The director in charge of the regulations pressed hard to have the federal juice HACCP rule cover the little girl in his neighborhood who sold lemonade from her stand. (I attended this meeting.)[10] He lost on that point, but FDA did end up covering all juices even though only apple and orange juice were causing problems. FDA estimated the first-year costs of this rule at $44 million to $58 million and recurring costs at $23 million. The solution was not HACCP, it was pasteurization.

Finally, in 1995, USDA imposed a HACCP rule on the meat and poultry industry.[11] At the time, USDA estimated costs to the industry over 20 years at $2.2 billion. USDA presented a range of benefits and claimed to be "without the knowledge to predict the effectiveness of the requirements in the rule to reduce foodborne illness."[12] Nevertheless,

3. Richard A. Williams, "Regulations Implementing the Food Safety Modernization Act" (Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, August 2015).
4. William H. Sperber, "HACCP Does Not Work from Farm to Table," *Food Control* 16 (2005): 513–14.
5. "FDA Food Safety Modernization Act (FSMA)," Food and Drug Administration, last updated July 13, 2016, http://www.fda.gov/Food/GuidanceRegulation/FSMA/.
6. Procedures for the Safe and Sanitary Processing and Importing of Fish and Fishery Products, 60 Fed. Reg. 65096 (December 18, 1995).
7. National Center for Emerging and Zoonotic Infectious Diseases, "National Enteric Disease Surveillance: COVIS Annual Summary, 2011," Division of Foodborne, Waterborne, and Environmental Diseases, Centers for Disease Control and Prevention, August 2013.
8. For more on this regulation and other food safety regulations, see Richard A. Williams, "A New Role for the FDA in Food Safety" (Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, November 2010).
9. Food and Drug Administration, Hazard Analysis and Critical Control Point (HAACP); Procedures for the Safe and Sanitary Processing and Importing of Juice, 66 Fed. Reg. 6138 (January 19, 2001).
10. Meeting at the Center for Food Safety and Applied Nutrition, Washington, DC, 1998.
11. Department of Agriculture, Food Safety and Inspection Service, Pathogen Reduction; Hazard Analysis and Critical Control Point (HACCP) Systems, 61 Fed. Reg. 38806 (July 25, 1996).
12. Ibid., 38956.

the department concluded that the program would only have to reduce foodborne illness by 14–17 percent to cover the costs. Despite that, a study four years later concluded that the costs of the rule could "plausibly exceed" the benefits.[13]

THE FSMA CONTINUED AND EXPANDED GOVERNMENT REGULATORY FAILURES

Despite the failures associated with the three previously mandated HACCP rules, FSMA expanded the mandate dramatically by requiring HACCP for the rest of the food industry. Three examples show how regulations have not been informed by science or analysis or have missed their mark.

The first example concerns a HACCP-type regulation for animal feed. This rule was proposed in 2013 and finalized in 2015.[14] It covers both pet food and farm animal feed, though FDA's own analysis demonstrates that there is no microbial contamination problem with farm animal feed. My colleague Jerry Ellig and I commented that this rule was not needed for farm animal feed.[15] Rather than address that point, FDA, oddly, relied on experts' opinions about how effective the rule would be at preventing contamination of livestock feed. Despite its failure to find any problems with farm animal feed, FDA imposed the regulation and all its costly recordkeeping and monitoring requirements on both pet food and farm animal feed, needlessly raising the cost of farm animal feed.[16]

Another FSMA example is the supposedly "risk-based" new regulations on produce that might be consumed raw. All fruits and vegetables that might be eaten raw are covered, despite the lack of evidence that most have caused any problem whatsoever. For instance, sweet corn is not considered to be for raw consumption, but bok choy, brussels sprouts, rhubarb, and turnips are covered.[17] FDA's reasoning for covering all these fruits and vegetables is that, although the vast majority of fruits and vegetables have caused no outbreaks, there is always a possibility that they might cause a problem in the future. FDA states,

> As discussed in the 2013 proposed rule and the QAR [qualitative assessment of risk], we agree that an approach that relies on outbreak data, or certain commodity characteristics, to make determinations about which produce should be covered would be inconsistent with the prevention-based approach mandated by FSMA and that relying on outbreak data would be insufficient to protect the public because many foodborne illnesses are not linked to an outbreak and the patterns of outbreaks associated with produce commodities change over time. . . .
>
> . . . We conclude that, while different commodities may have different risk profiles at different stages of production, all commodities have the potential to become contaminated through one or more of the routes identified, especially if practices are poor and/or conditions are insanitary.[18]

Think about that for a moment. That is the ultimate regulatory philosophy: there is no identifiable problem, but anything could happen at any time. That philosophy redefines the food safety problem as a *lack of regulation*. Unfortunately, like farm animal feed producers, if you grow oranges, grapes, carrots, celery, cucumbers, or other problem-free produce, you are on the losing team and have to comply with unnecessary rules.

It's not just that FDA is applying its rules to too many products. In some cases, FDA is actually going after the wrong area of the food supply. The third example concerns FDA regulation of packaged food. There is scant

13. John Antle, "No Such Thing as a Free Lunch: The Cost of Food Safety Regulation in the Meat Industry," *American Journal of Agricultural Economics* 82, no. 2 (2000): 310–22.
14. Food and Drug Administration, Current Good Manufacturing Practice, Hazard Analysis, and Risk-Based Preventive Controls for Food for Animals, 80 Fed. Reg. 56170–356 (September 15, 2015).
15. Jerry Ellig and Richard A. Williams, "Current Good Manufacturing Practice and Hazard Analysis and Risk-Based Preventive Controls for Food for Animals" (Public Interest Comment, Mercatus Center at George Mason University, Arlington, VA, March 4, 2014).
16. Williams, "Regulations Implementing the Food Safety Modernization Act."
17. Food and Drug Administration, Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption, 80 Fed. Reg. 74353 (November 27, 2015).
18. Ibid.

evidence that there is a large, systemic problem with packaged food, despite some highly publicized recalls. Nevertheless, FDA imposes its ramped-up HACCP program on packaged food, though this may, according to one industry estimate, cost $18 billion. (FDA estimated initial costs of $1.8 billion and recurring costs of $1.2 billion.)[19] In fact, FDA notes that most food safety problems occur in places are not covered by FSMA: restaurants, other retail establishments, and homes.[20]

FAILED REGULATIONS BURDEN BUSINESSES WHILE FDA EXPANDS ITS OVERREACH

Those who must comply with rules that aren't needed or don't work probably take no solace in the fact that these laws and regulations benefit those who promoted them, by gaining them a competitive advantage, large consulting fees, or—in the case of FDA—a bigger budget. While our country has labored through one of the worst, longest-lasting recessions in its history, FDA has expanded its food-related budget from $457 million in 2007 to $987 million today, an increase of 116 percent (see attached chart).

Maybe the regulatory system would improve if all voices were heard, but they are not. Most of the regulated farmers, manufacturers, retailers, warehousers, packers, and shippers don't participate in the regulatory process. They don't have the time or resources to read the *Federal Register* every day and hire attorneys and experts to try to influence regulations in their favor. They are too busy trying to make payroll, to be competitive, and to feed their families, not to mention the United States and often the world.

Why can't we get better outcomes? It's certainly not because most participants in the regulatory system aren't well intentioned or don't want safe food. But our method of achieving our goals rests on a century-old theory that the way to govern is to assemble a body of experts and give them lawmaking authority. But that theory produces an unoriginal stream of rules, particularly as there is no accountability for failure to produce food safety results. For those who must comply with those rules, the uncertainty associated with more costs would be easier to bear if the regulations actually solved problems.

SOLUTIONS TO FDA'S BURDENSOME REGULATORY OVERREACH

For a start, let's reprogram FDA. First, we are now in a much better position to trace food contamination outbreaks to their sources.[21] Let's task FDA, USDA, and the Centers for Disease Control and Prevention with doing more of that: tracing food safety outbreaks back to their sources, finding out what went wrong, and then posting the results on the Internet.[22] This is a different approach from trying to anticipate every possible problem and regulate food companies into compliance.

With new information on actual causes of outbreaks, the market will adjust as (where applicable) millions of food companies incorporate those results into their contracts to ensure that they are not the next to lose sales because of Internet publicity, pay for costly recalls, and suffer lawsuits due to contaminated food. This course of action would use the power of markets and market-based contracts and inspections to do what FDA has been unable to do: establish strong incentives for producers to exercise due diligence.

19. Food and Drug Administration, Current Good Manufacturing Practice, Hazard Analysis, and Risk-Based Preventive Controls for Human Food, 80 Fed. Reg. 55908 (September 17, 2015); Comment from the Association of Food, Beverage and Consumer Products Companies to the Food and Drug Administration (Docket No. FDA-2011-N-0920) on Current Good Manufacturing Practice and Hazard Analysis and Risk-Based Preventive Controls for Human Food, November 22, 2013.
20. FSMA Supplemental Notice of Proposed Rulemaking for Current Good Manufacturing Practice and Hazard Analysis and Risk-Based Preventive Controls for Human Food (Docket No. FDA-2011-N-0920), Preliminary Regulatory Impact Analysis, p. 6; cited in Williams, "Regulations Implementing the Food Safety Modernization Act," 19.
21. There are both public and private tools. Public tools include PulseNet and FoodNet and private tools include radio frequency identification (RFID) tags, 2-D barcodes, and laser etching.
22. Williams, "New Role for the FDA in Food Safety."

Second, we need to ensure that before enacting laws or regulations that are unlikely to work (except for the well-connected), regulators perform much better risk analysis and benefit-cost analysis. Stakeholders should be able to sue when this analysis is absent, ignored, or just poorly done.

Finally, let's stop trying to penalize new technologies, and instead embrace them. Just as pasteurization enabled massive improvements in food safety when it was first incorporated into the production process, so too does genetic modification promise to be a boon for both nutrition and food safety.[23]

We have relied on anticipatory regulations for too long to solve food safety problems. It's time to go in new directions if we are to make progress reducing foodborne disease.

ATTACHMENT

Richard Williams and Tyler Richards, "More FDA Spending Does Not Necessarily Mean Better Results," Mercatus Center at George Mason University, November 4, 2015.

23. Richard Williams, "GMO Labels Won't Make Foods Safer, Only More Expensive," Tribune News Service, October 29, 2015.

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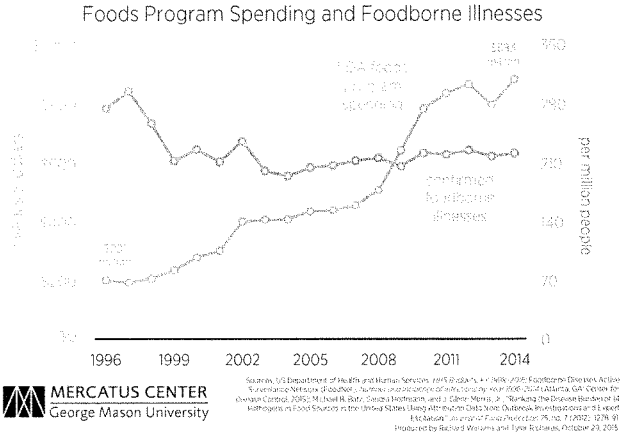
More FDA Spending Does Not Necessarily Mean Better Results

Richard Williams [1], Tyler Richards [2] | Nov 04, 2015

The FDA Foods Program recently requested a $1.167 billion budget for fiscal year 2016. If authorized, this budget would amount to an increase of 27.7 percent ($253 million) above the enacted $914 million for fiscal year 2015. This request is the most recent in a number of steps to implement the Food Safety Modernization Act of 2010 (FSMA), which expanded the FDA's authority to regulate imported and domestically produced foods. The FSMA is designed to reduce foodborne illnesses in the US, but if recent history is any guide, increasing spending may not be effective.

Using the Foods Program's yearly budgets, the results of a recent Centers for Disease Control and Prevention report on foodborne illnesses from 1996 to 2014, and a study estimating the proportion of each pathogen-related illness that is attributable to particular food types, we are able to estimate the number of confirmed foodborne illnesses caused by FDA-regulated foods per million people and compare this trend with the FDA's spending to combat foodborne illnesses. The chart below shows the results of this estimation.



[3]

The number of confirmed foodborne illnesses has remained relatively steady for the last 15 years, beginning at 213 illnesses per million people in 1999 and ending at 222 per million in 2014. However, the amount of money spent on the Foods Program has nearly quadrupled over that time.

The only significant drop in foodborne illnesses occurred in the years 1997–1999. This was driven largely by an almost 40 percent decrease in the incidence rate of *Campylobacter*, one of the most common causes of mild foodborne illnesses. However, it is not obvious this decline was the result of FDA actions, since Food Programs spending saw no unusual increase. Spending went up an average of 10.95 percent over these three years, while the average increase for all 19 years of this study was 9.16 percent.

Although the FSMA is geared toward prevention rather than control, the FDA has had little success with a similar approach in the past. The new FSMA regulations closely resemble a system of controls implemented by the FDA and the USDA called Hazard Analysis and Critical Control Points (HACCP). HACCP began in the 1960s to ensure safe food for space expeditions, but many firms privately adopted it where it was thought to be useful to control pathogens.

In the mid-1990s, the FDA decided to mandate HACCP for some industries. One example of the FDA's use of HACCP is a seafood rule. The largest expected benefit was a reduction of illnesses caused by the pathogen *Vibrio vulnificus*. The FDA estimated that the annual number of *Vibrio*-related cases would decline 20 to 50 percent, and this accounted for half of the rule's expected benefits. Instead, the annual number of cases nearly doubled over the next 14 years.

Nevertheless, the FDA and the USDA continued with new HACCP regulations.

The FSMA mandates a HACCP-like approach for all food. There is no evidence that this approach is likely to result in any significant progress in lowering the rate of foodborne illness. In view of the experience of the last 20 years, neither increasing the FDA's resources nor causing the food industry to spend more (in fact, much more) using this approach appears to be the answer.

Notes:

1) Methodology: The Batz, Hoffman, and Morris study estimated the fraction of each pathogen-caused illness that came from particular food groups from 1998 to 2008. Since the USDA also regulates some food products, we reduced the number of foodborne illnesses for each pathogen to match the estimated fraction of illnesses that were caused by FDA-regulated foods.

2) Limitations: This study is limited by the data available on total foodborne illnesses. The figures shown in this chart are estimations based on the best available data from culture-confirmed cases of foodborne illness.

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Consumer Federation of America

Written Testimony of Consumer Federation of America
Submitted to the
Homeland Security and Governmental Affairs Committee
Field Hearing: From Crop to Craft Beer: Federal Regulation's Impact on America's Food and Agriculture
Dubuque, Iowa
August 17, 2016

Consumer Federation of America (CFA) is pleased to submit testimony to the Homeland Security and Governmental Affairs Committee for consideration in the Committee's Iowa field hearing on federal regulations' impact on America's food and agriculture. CFA is an association of nearly 280 nonprofit consumer organizations that was established in 1968 to advance the consumer interest through research, advocacy and education. CFA also coordinates the Safe Food Coalition, which is dedicated to reducing the burden of foodborne illness in the United States by improving government food inspection programs.

CFA has long supported regulatory reforms to prevent food safety threats, rather than react to them after people get sick. That is why CFA supported passage of the Food Safety Modernization Act (FSMA), and the U.S. Food and Drug Administration's (FDA's) promulgation of regulations under the law. Because the source of foodborne illness often remains unknown, market forces and traditional tort liability are poorly suited to create adequate incentives for ensuring food safety. The cost of lapses in food safety is substantial. According to the Centers for Disease Control, each year Americans suffer 48 million foodborne illnesses, 128,000 hospitalizations, and 3,000 deaths. The economic impact of these illnesses is estimated to be $77 billion annually. FSMA and its implementing regulations are sorely needed to reduce the burden of foodborne illness in the United States.

Consumers and Industry Support Greater Food Safety Oversight

FSMA passed through Congress with strong bipartisan support in large part because consumers and industry supported it. American consumers across the political spectrum want better government controls to ensure food safety. A 2014 poll of 2,236 adults found that 73% agreed with the statement that "there should be more government oversight in regards to food safety" and a majority agreed that "food safety issues are an inevitable side effect of low food costs."[1] Prior to passage of FSMA, a poll by the Leafy Greens Marketing Association found that 89% of respondents favored "mandatory farm inspections by the government to verify compliance with the food safety practices,"[2] a reform that has been made reality by FDA's produce safety rule.

[1] The Harris Poll. "Nearly Three-Quarters of Americans Looking to Government for More Food Safety Oversight" Feb. 5, 2014 *available at:* http://www.theharrispoll.com/politics/Nearly_Three-Quarters_of_Americans_Looking_to_Government_for_More_Food_Safety_Oversight.html

[2] *See* Scott Horsfall. "Survey Says: The People Want Government Food Safety Oversight." *available at:* http://www.lgma.ca.gov/2014/02/survey-says-people-want-government-food-safety-oversight/

Industry support for FSMA and adequate funding to support FDA's implementation of the law has been similarly widespread.[3] This is because food producers understand that bad actors can undermine consumer confidence in an entire product class. A 2006 outbreak of *E.Coli* in spinach is estimated to have resulted in over $400 million in lost sales across the leafy greens industry.[4] More recently, after unsanitary conditions and fraudulent practices at Peanut Corporation of America (PCA) caused an outbreak of *Salmonellosis* among consumers of the company's peanut paste, rural peanut farmers suffered an estimated $1 billion in lost production and sales.[5] Those losses were in addition to the costs incurred by PCA's victims, including nine who died, and by the company's clients—such as the Kellogg Company—who footed the bill for extensive product recalls and are still struggling to repair the damage to trusted brands.

In general, most foods have a high "elasticity of demand," meaning that consumers will not hesitate to make a substitution when they lose confidence in a particular food product. For this reason, food companies have an interest in strong food safety controls across the industry. Indeed, FSMA bred unlikely alliances between consumer groups and industry lobbying organizations such as the U.S. Chamber of Commerce and the Grocery Manufacturers Association. This broad support has continued and has included calls for adequate funding as FDA implements FSMA.[6]

The Benefits of Food Safety Regulation Justify the Costs

Prior to FSMA, FDA operated under an antiquated legal structure. The Federal Food, Drug and Cosmetic Act of 1938 established a reactive posture, which gave FDA authority to act principally when food was found to be adulterated or misbranded. Numerous congressional oversight and legislative hearings on food safety identified flaws in food companies' processes and in FDA's regulatory regime.[7] As a result of these analyses, Congress required that food companies develop food safety plans and other prevention-based controls, and it gave FDA the authority to enforce those requirements, at home and abroad, through tools such as expanded recall authority. Many if not most of these regulatory reforms had been specifically recommended by the Government Accountability Office, food safety advocates, and industry, for years.

Arguments that FSMA fails to address real problems do not withstand scrutiny. Richard Williams argues, for example, that the intentional adulteration rule represents the "best illustration" of how

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[3] *See, e.g.* Quality Assurance & Food Safety. "21 Organizations Send Joint Letter to Congress to Support FDA's FSMA Funding Request." (May 4, 2015) *available at*: http://www.qualityassurancemag.com/article/21-organizations-send-congress-letter-support-fsma-funding/

[4] Huifang Zhang, Thomas L. Marsh, Jill J. McCluskey. "A Generalized Event Analysis of the 2006 E. coli Outbreak in Spinach and Lettuce" *available at*: http://www.impact.wsu.edu/MarshFiles/E.coli_paper_V1.pdf

[5] Associated Press. "Peanut industry: Recall price tag $1 billion" (March 11, 2009) *available at*: http://www.nbcnews.com/id/29634279/ns/business-going_green/t/peanut-industry-recall-price-tag-billion/#.V7M-ZJgrKUk

[6] *See, e.g.,* U.S. Chamber of Commerce. "Multi-Organization Hill Letter to Appropriators on the Food Safety Modernization Act" (Feb. 19, 2015) *available at*: https://www.uschamber.com/letter/multi-organization-hill-letter-appropriators-food-safety-modernization-act ("Federal food safety programs and inspections conducted by FDA benefit all American consumers and should be funded through appropriated funds.").

[7] *See, e.g.,* Gov. Acct. Off., *FDA Could Strengthen Oversight of Imported Food by Improving Enforcement and Seeking Additional Authorities* GAO-10-699T, May 2010; Gov. Acct. Off. *Improvements Needed in FDA Oversight of Fresh Produce*, GAO-08-1047, Sept. 2008; Gov. Acct. Off., *High Risk Update: Revamping Federal Oversight of Food Safety*, Rep. No. GAO-09-271, Jan. 2009.

FSMA has resulted in unnecessary regulatory additions. He reasons that the rule must be superfluous because the occurrence of food terrorism and other acts of intentional contamination is currently very rare in the United States.[8] This argument is flawed for at least two reasons. First, terrorists are currently targeting American citizens, as attacks like the December 2, 2015 massacre of 14 people in San Bernardino make clear.[9] Thus far, terrorists have tended to rely on guns and bombs to wreak havoc, but researchers have shown that the food supply could be a particularly effective medium as well.[10] Second, the extent of harm caused by intentional adulteration outside of the U.S.—particularly in China, where baby formula contaminated with melamine sickened over 300,000 infants in 2008—caution against adopting a "wait-and-see" approach.[11] Efforts by Williams to impugn the validity of FDA's other FSMA regulations similarly falter, relying on "mischaracterizations, cherry-picked facts, and mistaken assumptions."[12]

To be sure, many American families struggle to make ends meet and to put nutritious food on the table. However, these families are also particularly vulnerable to foodborne illness and its associated costs, such as medical bills and lost pay due to sick leave or time off from work to care for a sick child.[13] Trying to save money for American families by scrimping on food safety regulation is a penny-wise, pound-foolish strategy. Americans spend roughly $1.46 trillion on food and beverages each year.[14] Even assuming that FDA has grossly underestimated the cost of implementing FSMA, it amounts to less than a tenth of one percent of these expenditures. If Congress wants to increase poor Americans' access to food, underfunding the food safety system is not the way to do it.

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[8] Richard A. Williams. "Regulations Implementing the Food Safety Modernization Act." Mercatus Working Paper (Aug. 2015) *available at*: http://mercatus.org/sites/default/files/Williams-FSMA-Regulations.pdf

[9] http://www.foodsafetymagazine.com/enewsletter/food-defense-in-the-age-of-domestic-terrorism/

[10] *See, e.g.* Wein and Liu. "Analyzing a bioterror attack on the food supply: The case of botulinum toxin in milk." *PNAS* vol. 102 no. 28 (July 12, 2005) *available at*: http://www.pnas.org/content/102/28/9984.full; Manning and Soon. "Food Safety, Food Fraud, and Food Defense: A Fast Evolving Literature." *Journal of Food Science*, (March 2016) *available at*: http://onlinelibrary.wiley.com/doi/10.1111/1750-3841.13256/full

[11] *See, e.g.* Yanzhong Huang, "The 2008 Milk Scandal Revisited." *Forbes* (July 2014) *available at*: http://www.forbes.com/sites/yanzhonghuang/2014/07/16/the-2008-milk-scandal-revisited/#612215354428

[12] *See* David Plunkett. "Who Should Bear the Costs of Making Our Food Safe?" *Food Safety News* (Sept. 2015) *available at*: http://www.foodsafetynews.com/2015/09/who-should-bear-the-costs-of-making-our-food-safe/#.V7MmCZgrKUk

[13] *See* Consumer Federation of America. Child Poverty, Unintentional Injuries and Foodborne Illness. Are Low-Income Children at Greater Risk?" pp. 10-13 (June 2013) *available at*: http://www.consumerfed.org/pdfs/Child-Poverty-Report.pdf

[14] USDA Economic Research Service. "Food Prices and Spending" *available at*: http://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/food-prices-and-spending.aspx (2014 estimate).

NRDC

NATURAL RESOURCES DEFENSE COUNCIL

Comments from the Natural Resources Defense Council

Hearing of the U.S. Senate Committee
on Homeland Security & Governmental Affairs

From Crop to Craft Beer:
Federal Regulation's Impact on
America's Food and Agriculture

August 17, 2016
Dubuque, IA

The Natural Resources Defense Council ("NRDC") is a national, non-profit environmental organization of lawyers, scientists, and other professionals. NRDC presents these comments on behalf of our more than 2 million members and online activists. NRDC does not have any financial interest in the topic of these comments.

ATRAZINE ECONOMICS DON'T ADD UP

A rigorous economic report has found Syngenta—the maker of the toxic herbicide atrazine—greatly exaggerated the costs of eliminating the weed-killing chemical. It turns out that when independent experts (not paid by Syngenta) crunch the numbers, a ban on atrazine would simply not result in corn yields falling any significant amount. But even using Syngenta's dire predictions, the effect on corn prices to consumers would hardly be noticeable.

The report, by Dr. F. Ackerman and colleagues (2014), reviewed the Syngenta-sponsored atrazine economic analyses, and concluded that Syngenta-sponsored authors underestimated the growing problem of atrazine-resistance weeds, and disregarded non-chemical weed management approaches.

"In addition, the most complete economic analysis in the [Syngenta-sponsored research] papers implies that withdrawal of atrazine would lead to a decrease in corn yields of 4·4% and an increase in corn prices of 8·0%. The result would be an increase in corn growers' revenues, equal to US$1·7 billion annually under [Syngenta-sponsored research] assumptions. Price impacts on consumers would be minimal: at current levels of ethanol production and use, gasoline prices would rise by no more than US$0·03 per gallon; beef prices would rise by an estimated US$0·01 for a 4-ounce hamburger and US$0·05 for an 8-ounce steak. **Thus withdrawal of atrazine would boost farm revenues, while only changing consumer prices by pennies.**" (bold added for emphasis)

ATRAZINE CONTAMINATES WATER

Banned in the European Union and linked to harm to wildlife and potentially to humans, the pesticide atrazine provides insufficient benefits to offset its risks. In 2010, NRDC analyzed results of surface water and drinking water monitoring data for atrazine and found pervasive contamination of watersheds and drinking water systems across the Midwest and Southern United States (Wu et al, 2010). Atrazine was found in most of drinking water samples taken in over 150 public water systems tested under EPA's program. As discussed below, NRDC is concerned about the potential impacts of atrazine on people who are exposed to it in or near fields where it is applied, on those who drink water containing it, and on plants and wildlife exposed to it.

OCCUPATIONAL ATRAZINE EXPOSURE AND RENAL DISEASE

The latest update of the Agriculture Health Study of the NIH reported a link with occupational atrazine exposure and incidence of end-stage renal disease, among licensed male pesticide applicators (Lebov et al 2016). The link was highest, 1.5-fold above unexposed people, with the most highly exposed people (95% CI 1.52, 1.11 to 2.09). There was a statistically significant exposure-response trend, with increasing risk associated with increasing exposures ($p<0.05$). This study is particularly significant since it assesses professional licensed pesticide applicators, that presumably follow label restrictions and recommendations to protect themselves from exposure. Nonetheless, this study identified risk of kidney disease with real-world atrazine exposures. The study is supported by reports in laboratory rodents of kidney damage and disease following atrazine treatment (Santa Maria et al, 1986).

DEVELOPMENTAL AND REPRODUCTIVE RISKS OF PRENATAL ATRAZINE EXPOSURE

In 2010 EPA reviewed some of the data linking atrazine with human health risks, and raised concerns regarding the potential for atrazine to impair reproductive health in both men and women, and lead to birth defects. Specific concerns included: delayed menopause in women; increased risk of gestational diabetes in pregnant women; and poor sperm quality in men. These studies used particularly reliable measures of atrazine exposure from personal measurements such as in blood or urine.

In EPA's 2010 review there were also several studies correlating an elevated risk of low birth weight and abdominal wall or other birth defects in infants with atrazine exposures during fetal development. Although the study designs are limited and therefore scientists are less confident in the outcomes, they still provide important support for the overall evidence linking pre-birth atrazine exposures with adverse health effects.

In 2013, a team of researchers from the University of Texas School of Public Health, the Texas Department of State Health Services, and the Baylor College of Medicine published a series of research

papers (Agopian et al 2013) showing that prenatal atrazine exposure increased the risk of specific birth defects, including abdominal wall defects (gastroschisis) that were reported in earlier studies (Agopian, Langlois et al 2013), male genital malformations (including hypospadias, cryptorchidism, and small penis size) (Agopian, Lupo et al 2013), and malformations of the nose (choanal atresia and stenosis) (Agopian Cai et al 2013). The team estimated maternal exposure based on atrazine use by county using a sophisticated method developed by government researchers at the US Geological Survey (USGS), which uses both private and public government pesticide use data aggregated by the US Department of Agriculture. This information was then linked to each pregnant woman based on the county that she lived in. It is interesting that the effects on the abdominal wall were only seen with babies born to mothers over age 25, suggesting that the effect may be missed in other studies if the data isn't sorted by maternal age.

Laboratory studies in male vertebrates – fish, amphibians, reptiles, and mammals - provide evidence that atrazine may be doing some serious damage to male gonads, even at low doses, causing demasculinization and feminization (Hayes et al 2011). In at least one laboratory report, atrazine-exposed male frogs were so completely feminized that they successfully mated and produced viable offspring with normal males (not exposed to atrazine) (Hayes et al 2010).

It's not only damage to test animals, but human health that may also be compromised by atrazine. That's because it is an endocrine disrupting chemical (EDC), interfering with hormone activity (Vandenberg et al 2012).

CONCLUSION

In summary, using less or no atrazine would be predicted to reduce resistant weeds, maintain similar crop productivity, and reduce costs for farmers. Ecosystems would also benefit, including beneficial pollinators and butterflies that rely on the blooming weeds that are killed by atrazine.

Respectfully,

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