

The Michigan State University Food Systems Fellowship Program: Meeting the needs of animal agriculture now and in the future

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Abstract

The Michigan State University College of Veterinary Medicine Summer Food Systems Fellowship Program is a collaboration with industry partners aimed at providing value added experiences to veterinary students with a food animal industry career goal. By providing relevant non-clinical experiences in a variety of food industry areas, students gain experiences that will complement and strengthen their traditional veterinary training and help them to meet the needs of a changing agriculture landscape. We describe the experience of 2 students employed as Legislative Fellows for the US Senate Committee on Agriculture, Nutrition and Forestry as an example of how this program has an impact on students.

Key words: food systems fellowship, legislative fellows, Michigan State University

Résumé

Le programme de bourse d'été de la faculté de médecine vétérinaire du *Michigan State University* dans le domaine des systèmes d'alimentation est le fruit d'une collaboration avec des partenaires de l'industrie qui a pour but de donner une expérience à valeur ajoutée aux étudiants vétérinaires dont l'orientation de carrière est le secteur des animaux destinés à l'alimentation. En obtenant une expérience non-clinique dans plusieurs secteurs de l'industrie alimentaire, les étudiants acquièrent une expérience qui complétera et renforcera leur apprentissage vétérinaire traditionnel et les aidera à répondre aux besoins dans un milieu agricole en pleine évolution. Nous décrivons l'expérience de deux étudiants employés comme boursiers par le *US Senate Committee on Agriculture, Nutrition and Forestry* pour illustrer l'influence de ce programme sur les étudiants.

Introduction

Although traditional training of food animal veterinarians is still applicable, the new food animal health workforce will need to be prepared for a different future.² There are many driving forces. Agriculture is undergoing profound changes as it becomes more global, involves more public health issues, and increasingly involves non-agriculturalists in decision-making and public policy. Concurrently, other factors including the emergence of new infectious diseases, evolving food safety and security problems, potential for bioterrorism, decreasing profit margins, shifting of consumer preferences, and a changing workforce have combined to create new realities and challenges.

Veterinary institutions must continually review and revise their curricula to meet the changing needs and expectations of society. This is especially true in the quickly changing food systems arena. Food animal veterinary leaders have stressed the importance of anticipating the roles of veterinarians in modern animal agriculture and adapting our educational methods to meet those roles.^{1,4,5} To meet the specific need of providing relevant value-added experiences in the food system arena, the Michigan State University College of Veterinary Medicine (MSU-CVM), in partnership with food industry leaders, established the Summer Food Systems Fellowship (FSF) Program in 2006.³ The goal of this program is to provide experiential training that broadens the student's understanding of the food industry. It is the expectation that these fellowships will be beneficial to the students, the industry partner, the overall veterinary training program at MSU, and society in general.

Selection of Participants

Students are recruited to apply for the program through personal solicitation by faculty and a recruit-

ing luncheon. Interested students are asked to provide a résumé and fill out an application that includes personal information and evidence of their commitment to a career in the food industry or public health. Students are provided with a job description as provided by the industry partners. As part of the application, students identify positions with partners they would be most interested in being considered for. Industry partners are then given the application and résumé of students interested in their position. Interviews are arranged between the partners and students they select. The partners then make an offer to the student, and it is up to the student to accept or reject position offers.

One-hundred eleven food animal interested students and 23 different partners have participated in the FSF program since 2006, which is now in its ninth year. Partnerships have been forged locally, nationally (Kansas, Iowa, Washington DC) and internationally (Chennai, India). The willingness to participate in a new and innovative program underscores our partners' commitment to the future of food animal agriculture and the need to train well-qualified veterinarians to work in the food industry. Most importantly, their mentorship of students has provided invaluable experiences that have broadened the skills of food animal oriented students. We believe these skills will make these future professionals better and uniquely prepared to meet the needs of the food animal agriculture industry, not only in Michigan but nationally and internationally. The success of this program is a credit to the role of our partners.

In 2011, the FSF Program established a partnership with US Senator Debbie Stabenow and the US Senate Committee on Agriculture, Nutrition, and Forestry (Senate Agriculture Committee) with the goal of having a student work at the highest level of public policy debate and formation. This initial partnership was supported in part by the American Association of Bovine Practitioners (AABP), the American Association of Veterinary Medical Colleges, and the Michigan Veterinary Medical Association. Following is a brief description of the experience of Chelsea Render (2011-2012) and Heather Roney (2013), who were selected to participate in this fellowship opportunity. This highlights how creative programs can help add valuable experiences and knowledge to future food animal veterinarians to meet the ever changing needs of animal agriculture.

**US Senate Committee on Agriculture, Nutrition,
and Forestry, May 2011 to August 2012 –
Chelsea Render**

My interest in veterinary medicine is rooted in agriculture. So when the MSU-CVM Food Systems Fellowship partnered with the US Senate Agriculture Committee and Senator Debbie Stabenow, I saw it as

a rare opportunity to learn more about agriculture and public policy. I have long-aspired to become involved in public policy on a local level, but I never imagined veterinary medicine would lead me to our nation's capital.

My issue assignments on the Senate Agriculture Committee seemed like a natural fit. They included livestock, dairy, food safety, and animal welfare. I mainly provided background and technical insight to help Chairwoman Stabenow and her staff make policy decisions and draft legislation. The center of our work was the 2012 Farm Bill. Each and every idea we considered had the potential to be included in the Farm Bill, a large piece of legislation that would eventually become the Agriculture Reform, Food, and Jobs Act of 2012. This was a tremendous opportunity, particularly because the Farm Bill affects every American from farmers to manufacturers to consumers

The fast pace of the Hill required me to make decisions quickly and communicate complex ideas in a short amount of time. At first, I ambitiously wrote lengthy, detailed papers that were of questionable use to anyone. However, once I learned the ropes, I was often looked upon to bring a veterinary, public health, or "on-the-farm" perspective to a variety of issues. This perspective became valuable enough that I was actually offered a full-time policy position. It was one of those once-in-a-lifetime opportunities. For the first time in over a century, a Michigan Senator is the Chair of the Ag Committee and it was a Farm Bill year! So, without significant policy experience (only a working knowledge and enthusiasm for agriculture), I took a leave of absence from veterinary school and took on agriculture policy for the 112th Congress.

Part of my job was to work closely with trade groups and other Senate offices to prioritize programs. My areas fell in the Commodity and Miscellaneous Titles. For example, the 2008 Farm Bill included a livestock title for the first time, and included animal health programs as well as livestock disaster programs aimed at helping livestock producers dealing with drought, fire, or other loss of livestock or grazing land. So, we worked closely with producers, trade groups, and other Senate offices on these programs.

Some of the most interesting and challenging work involved dairy policy. Milk producers from across the country have demanded a modernized dairy policy, one that accounts for high feed costs and the uncertainty that comes with wide swings in milk prices. My farm experience was the primary reason that I got involved in those negotiations. A previous MSU-CVM Food Systems Fellowship experience from 2010 put me on dozens of dairy farms of all sizes across the state of Michigan. I quickly learned that a one-size fits all law would not work for the all these dairy operations. That experience gave me the ability to understand the practical impact

of national policy on dairy farms and it truly influenced my work in Washington.

I became involved in some surprising agriculture issues outside of the Farm Bill. Working late one night I was brought into an issue that I would have otherwise avoided. The Agriculture Committee has jurisdiction over the Commodity Futures Trading Commission, which is an agency that oversees commodity futures markets. In November of 2011, a financial group called MF Global filed bankruptcy and millions of dollars of customer funds were lost. I don't know much about financial markets, but I do know how farmers hedge on the futures market. MF Global held nearly one-third of all futures contracts for corn, soybeans, and lean hogs. I became a point of contact for producers that were impacted by the collapse of this company. What followed was a very high profile series of hearings and news stories surrounding the scandal. We worked around the clock for weeks assembling witnesses for hearings, debating complex financial reform with Senators and staff, and met some of the most powerful people on Wall Street.

In early 2012, my responsibilities grew and I began working on new ideas, such as research initiatives targeting bovine tuberculosis and Brucellosis, and a pilot program for controlling feral swine. With the New Year came a new baseline, and new projected prices for basic commodities. As a result, dairy policy had to adapt and we were back to the negotiating table. In March, the Agriculture Committee marked-up the Farm Bill. In a Committee Mark-Up, each member has the opportunity to make amendments to the base text, vote on the amendments, and eventually vote on the entire bill. The Farm Bill passed out of committee in a bipartisan manner. This allowed it to come to the Senate Floor in June. The Senate voted on 73 amendments over 2 days. I felt like I was a part of history while sitting on the staff bench on the floor of the Senate. I was sometimes asked to explain certain language to individual Senators as they made decisions on votes. I listened while our leaders debated, negotiated, and voted on farm policy, many pieces of which I had a hand in crafting.

Throughout my time in DC, I worked on my fear of public speaking. Some groups were absolutely frightening to speak to, especially knowing my topics and positions are unpopular in some crowds. I talked about animal welfare to meat producers and about livestock disaster programs to southwestern cattlemen. I also spoke to animal welfare groups and organic food coalitions on a smaller scale. I learned to be professional and confident, even when disagreements arose.

Every time I thought I overcame the most difficult project, an even more challenging one would arise. My final project took place in July 2012, while also preparing to come back to school. I was told to head up a hearing on cage standards for laying hens. Animal welfare is

one of the most contentious issues in agriculture – there is no clear line between consumers, advocacy groups, or political parties. Animal welfare hearings are rare on the Senate Agriculture Committee, so there was a lot of interest in this one. I worked with the Humane Society of the United States, United Egg Producers, livestock groups, and other Senate offices to bring together a hearing. Both the politics and emotions surrounding this issue made it difficult to work on and even more difficult to find solutions. However, I am pleased to have been able to work on a rare animal welfare hearing for the Senate Agriculture Committee.

Overall, I realized that my unique background stood out in the DC environment – for better or worse – most often for the better. My farm experience helped influence dairy policy and regulatory issues and, of course, my veterinary education was valuable in the areas of food safety, biosecurity, research, and in linking veterinary medicine with agriculture and public health every day.

The experience has shaped my own visions moving forward. I see all of veterinary medicine as a kind of public service and being involved in policy is a piece of that. My time in politics has motivated me to be involved in government and organizations such as AVMA, AABP, and to advocate for agriculture, research, veterinary medicine, and public health.

US Senate Committee on Agriculture, Nutrition, and Forestry, May 2013 to August 2013 – Heather Roney

When I told my family and friends my summer plans, they frequently responded with: “I thought you were going to vet school?” The connection between agricultural legislation and my goal of working in food animal medicine was not easily understood by many at first, but I was tremendously excited to have the opportunity to spend my summer on Capitol Hill working as a Legislative Fellow with the US Senate Committee on Agriculture, Nutrition, and Forestry. Senator Debbie Stabenow of Michigan is the Chairwoman of the committee, and I worked with her committee staff to research policy issues and keep the Chairwoman and other members of the committee informed. The committee staff has the impossible job of keeping up with every topic affecting agriculture. Thankfully, the staff is large, dedicated, and each person is an expert in their field.

Working on The Hill is an experience by itself. Every morning I would board the Metro and descend upon the city just before 9 am with thousands of other staffers – all necessary to keep the government running. I frequently got lost taking the underground passages and trams that connect the House and Senate office buildings to the US Capitol building, but I was

never disappointed as I regularly passed by Senators and Representatives rushing off to do important work.

As the only veterinary student on committee staff, my primary role was to consult on scientific issues. Obviously, the Agriculture Reform, Food, and Jobs Act of 2013 (or the Farm Bill, as it is commonly known) received the most media coverage during the summer, and I was fortunate to have the opportunity to work on it. The Farm Bill is the primary vehicle for changing agricultural policy, and it is renewed every 5 years. I came to DC just in time to see the Farm Bill go through its committee mark-up. Weeks later I watched as it was debated on the Senate Floor. There is a great deal of behind the scenes work when your Senator has a large bill like that on the table. There were over 200 Farm Bill amendments and each one needed summarization and a voting recommendation written. The final Senate-passed version of the Farm Bill is 1,162 pages long. This is where my summer started; I was thrown right into the fray and I loved it. I was worried that as a science student, I would not have the “policy chops” to make it in DC. Turns out, figuring out legislation is a lot like veterinary school. I would be given a topic that I knew nothing about, and in a very short window would need to master the essential issues and core information needed by policy makers. I then had to summarize the information I discovered and make recommendations based on what I had learned. It was this process that really made me feel like my work was worthwhile.

I was also very involved with the committee hearing on the acquisition of American pork producer, Smithfield Foods, by a Chinese holding company, Shuanghui International. I was assigned to track the Smithfield issue which required a lot of reading the news (another key part of a hill staffer’s job). I think I read every article written on the topic during the summer. Eventually, the letters and phone calls started rolling in; constituents were concerned about the implications of the deal. I compiled summaries of the most comprehensive news coverage and reached out to professors and industry leaders to figure out how the pork industry in China compared to that of the US. I learned about other international acquisitions of American companies and met with experts on the topic. When the Senator decided to hold a hearing on the topic, all that research was compiled into a giant memo for the staff. The hearing was scheduled, witnesses were invited, and I helped compile the supporting documents needed for the Senator. It was an incredibly interesting hearing. The witness testimony was informative and thought-provoking, and Senator Stabenow was praised as a consumer advocate. It will be interesting to see what happens with the Smithfield/Shuanghui deal over time.

One of my favorite parts of the fellowship was meeting with constituents and consumer groups. I saw

more than a few friendly faces from Michigan and had the opportunity to network with industry leaders. These visits brought important issues to the table including country of origin labeling, the bovine tuberculosis outbreak in Michigan, horse slaughter, livestock transportation legislation, antibiotic resistance, anti-puppy mill legislation, and the use of methionine in organic poultry production.

My biggest success of the summer was convincing Senator Stabenow to co-sponsor the Veterinary Medicine Mobility Act – a bill that would ensure veterinarians can continue to transport controlled substances in the course of their work. It took a lot of research, following the bill as it was written and rewritten multiple times, and then many drafts of a memo – the primary way staff communicates with the Senator – to prepare my points. It was really rewarding to help move legislation forward that I had supported as a student.

Before boarding the plane for Washington, DC at the beginning of my fellowship, I had considered that this experience could leave me with a jaded view of politics. Amazingly, being this close to the process renewed my faith in our government. The Senate Agriculture Committee is refreshingly removed from most of the partisan debates. Since agricultural commodities vary by climate, the debates were often more regionally conflicted with Senators championing their state’s commodities. While I heard my fair share of seemingly extreme comments from government officials, I also had friendly and insightful conversations with Michigan Senators and Representatives that really do care what their constituents have to say and are very much attuned to the needs of farmers.

For me, this fellowship was a life-changing opportunity that has inspired me to find other ways to get involved and advocate for the needs of the agricultural community. A veterinarian is a trusted source of information within a community, and I now feel better prepared to provide for my future client’s needs. Animal health does not exist in a vacuum, it is affected by legislation so we as veterinarians must keep informed and help influence policy that supports farmers and does not hinder their ability to provide the best possible care for their animals.

Discussion and Significance to Bovine Practitioners

Veterinary medicine is a profession that must continually adapt to society’s needs and demands. Likewise, education of future food systems veterinarians must also adapt so as to better prepare students for these new opportunities. The MSU-CVM FSF program is an example of an excellent way to expose students to the food animal industry in a broader context than they often envision

it. While students are always encouraged to obtain more traditional clinical experience, the focus of this program is to increase students' knowledge base of agriculture in general, and the broad role that veterinarians can play in food systems. The goal is to provide value-added experiences that will complement and enhance traditional veterinary skills. In the specific example outlined in this report, veterinary students were exposed to and participated in the complexities of agriculture policy development at the highest levels. There is little doubt that agriculture policy has a profound effect on the role of veterinarians in animal agriculture. Providing experiences that will prepare future veterinary leaders to participate in policy making decisions, or for that matter, other areas of the broader food systems arena, will benefit food systems veterinarians, producers, and ultimately society for generations to come.

Post Script

Chelsea Render grew up on a farm in southeastern Michigan and has been active in a variety of different agricultural activities her entire life. Some highlights include exhibiting livestock at county and state fairs, being a member of the MSU Dairy Challenge and Animal Welfare teams, and participating in a veterinary mission trip to Honduras. She has also held jobs at the MSU-CVM Veterinary Research Farm, MSU Diagnostic Center for Population and Animal Health, and the Veterinary Teaching Hospital. She received her Bachelor's of Science Degree in Animal Science from Michigan State University in 2009 with a specialization in agribusiness management. Chelsea is now Dr. Chelsea Render, having graduated from the MSU College of Veterinary Medicine in May 2014. She is employed as an associate in the Veterinary Standard PLLC, a food animal practice located in Manchester Michigan. During her time in

Washington DC, Chelsea met with the AABP Board of Directors and Executive Committee to provide updates on issues important to AABP members.

Heather Roney grew up in Clarkston Michigan on a small family farm. She received her Bachelor's of Science Degree in Animal Science from Michigan State University in 2010. While working on her undergraduate degree, Heather was active in undergraduate research working on projects related to pregnancy specific glycoproteins. In addition to spending a summer in Washington DC, she also went to DC as an AVMA Legislative Fly-In Representative 2013. Heather will be entering year 3 of her DVM training program at MSU in September 2014. Her career aspirations are to work in the food animal industry and to continue shaping the way this country views the agricultural industry.

You can learn more about the Summer FSF Program at <http://cvm.msu.edu/fsf>.

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