

**A PRESENTATION BY NATIONAL 4-H
CONFERENCE PARTICIPANTS CONCERNING
THE FUTURE OF AGRICULTURE IN THE
UNITED STATES**

HEARING
BEFORE THE
SUBCOMMITTEE ON
BIOTECHNOLOGY, HORTICULTURE, AND RESEARCH
OF THE
COMMITTEE ON AGRICULTURE
HOUSE OF REPRESENTATIVES
ONE HUNDRED FOURTEENTH CONGRESS

FIRST SESSION

APRIL 14, 2015

Serial No. 114-10



Printed for the use of the Committee on Agriculture
agriculture.house.gov

U.S. GOVERNMENT PUBLISHING OFFICE

94-334 PDF

WASHINGTON : 2015

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
Fax: (202) 512-2104 Mail: Stop IDCC, Washington, DC 20402-0001

COMMITTEE ON AGRICULTURE

K. MICHAEL CONAWAY, Texas, *Chairman*

RANDY NEUGEBAUER, Texas, <i>Vice Chairman</i>	COLLIN C. PETERSON, Minnesota, <i>Ranking Minority Member</i>
BOB GOODLATTE, Virginia	DAVID SCOTT, Georgia
FRANK D. LUCAS, Oklahoma	JIM COSTA, California
STEVE KING, Iowa	TIMOTHY J. WALZ, Minnesota
MIKE ROGERS, Alabama	MARCIA L. FUDGE, Ohio
GLENN THOMPSON, Pennsylvania	JAMES P. McGOVERN, Massachusetts
BOB GIBBS, Ohio	SUZAN K. DELBENE, Washington
AUSTIN SCOTT, Georgia	FILEMON VELA, Texas
ERIC A. "RICK" CRAWFORD, Arkansas	MICHELLE LUJAN GRISHAM, New Mexico
SCOTT DESJARLAIS, Tennessee	ANN M. KUSTER, New Hampshire
CHRISTOPHER P. GIBSON, New York	RICHARD M. NOLAN, Minnesota
VICKY HARTZLER, Missouri	CHERI BUSTOS, Illinois
DAN BENISHEK, Michigan	SEAN PATRICK MALONEY, New York
JEFF DENHAM, California	ANN KIRKPATRICK, Arizona
DOUG LAMALFA, California	PETE AGUILAR, California
RODNEY DAVIS, Illinois	STACEY E. PLASKETT, Virgin Islands
TED S. YOHO, Florida	ALMA S. ADAMS, North Carolina
JACKIE WALORSKI, Indiana	GWEN GRAHAM, Florida
RICK W. ALLEN, Georgia	BRAD ASHFORD, Nebraska
MIKE BOST, Illinois	
DAVID ROUZER, North Carolina	
RALPH LEE ABRAHAM, Louisiana	
TOM EMMER, Minnesota	
JOHN R. MOOLENAAR, Michigan	
DAN NEWHOUSE, Washington	

SCOTT C. GRAVES, *Staff Director*
ROBERT L. LAREW, *Minority Staff Director*

SUBCOMMITTEE ON BIOTECHNOLOGY, HORTICULTURE, AND RESEARCH

RODNEY DAVIS, Illinois, *Chairman*

GLENN THOMPSON, Pennsylvania	SUZAN K. DELBENE, Washington, <i>Ranking Minority Member</i>
AUSTIN SCOTT, Georgia	MARCIA L. FUDGE, Ohio
CHRISTOPHER P. GIBSON, New York	JAMES P. McGOVERN, Massachusetts
JEFF DENHAM, California	ANN M. KUSTER, New Hampshire
TED S. YOHO, Florida	GWEN GRAHAM, Florida
JOHN R. MOOLENAAR, Michigan	
DAN NEWHOUSE, Washington	

CONTENTS

	Page
Conaway, Hon. K. Michael, a Representative in Congress from Texas, opening statement	4
Davis, Hon. Rodney, a Representative in Congress from Illinois, opening statement	1
Prepared statement	2
DelBene, Hon. Suzan K., a Representative in Congress from Washington, opening statement	3
Peterson, Hon. Collin C., a Representative in Congress from Minnesota, opening statement	41
WITNESSES	
Harden, Hon. Krysta L., Deputy Secretary, U.S. Department of Agriculture, Washington, D.C.	5
Prepared statement	7
4-H Presenters:	
Rogers, Harley, Hamilton, TX	10
Swan, Alexandra, Newark, DE	11
Germann, Gabriella, Ceres, CA	11
Parrent, Jillian, Normal, IL	11
Nierman, Shelby, Brownstown, IN	12
Foster, Kailey, South Kingston, RI	13
Brazeau, Danielle, Storrs, CT	14
Searcy, Colton, Porterville, CA	14
Hasbargen, Hannah, Wheaton, MN	14
Weibel, Brook, Burns, WY	15
Hofmeister, Wade, Brush, CO	16
Tomera, Garrett, Spring Creek, NV	17
Basset, Tyler, St. Charles, ID	17
Schmidt, Darby, Defiance, MO	17
Schofield, Shaynen, Knox, ME	18
Golbuff, Jennifer, Fort Collins, CO	18
Winters, Merah, Belton, TX	19
Joint prepared statement	19

**A PRESENTATION BY NATIONAL 4-H
CONFERENCE PARTICIPANTS CONCERNING
THE FUTURE OF AGRICULTURE IN THE
UNITED STATES**

TUESDAY, APRIL 14, 2015

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON BIOTECHNOLOGY, HORTICULTURE, AND
RESEARCH,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Subcommittee met, pursuant to call, at 1:00 p.m., in Room 1300 of the Longworth House Office Building, Hon. Rodney Davis [Chairman of the Subcommittee] presiding.

Members present: Representatives Davis, Scott, Denham, Yoho, Moolenaar, Newhouse, Conaway (*ex officio*), DelBene, McGovern, Kuster, Graham, and Peterson (*ex officio*).

Staff present: Haley Graves, Jessica Carter, John Goldberg, Patricia Straughn, Ted Monoson, Anne Simmons, Keith Jones, and Nicole Scott.

**OPENING STATEMENT OF HON. RODNEY DAVIS, A
REPRESENTATIVE IN CONGRESS FROM ILLINOIS**

The CHAIRMAN. This hearing of the Subcommittee on Biotechnology, Horticulture, and Research, regarding a presentation by National 4-H Conference participants concerning the future of agriculture in the United States, will come to order. I would like to, before we go into opening statements, advise all Members here that a series of votes will be called very shortly, possibly around 1:00 rather than 1:20, so hopefully we will get through some opening statements, and if we have to break, that actually may be done much more quickly than what I initially envisioned when I spoke with many of you in the audience earlier. Excuse me. I will go ahead and commence with my opening statement.

And good afternoon, and welcome to our first hearing of the Subcommittee on Biotechnology, Horticulture, and Research. As policymakers, this is a great opportunity to hear from future leaders that are here today who are participating in the National 4-H Conference. Again, thank you all for being here with us today to discuss how the future of agriculture can be sustained through enhancing the rural/urban coalition.

Here in the Agriculture Committee we saw just how challenging it was to enact this most recent farm bill. If we do not mend the divide between rural and urban areas, and foster a more wide-

spread understanding of the food and fiber industries, and the impact that they have on everyday life, it is likely we may face the same challenges enacting future farm bills. This Committee strives to promote policies that will protect and increase access to safe and affordable food, but has encountered opposition from organizations and individuals who do not see the need for continued Federal involvement. That is why strengthening the relationship between rural and urban communities is critical to addressing the long term challenges we face in production agriculture.

Today's hearing is the first in a series that will highlight extension and research programs which support the enhancement of a rural/urban coalition, and it is fitting for our introductory hearing we have 17 distinguished delegates from the National 4-H Conference with us. Since its inception, 4-H has been a model for bridging the gap between rural and urban communities, and since 1890 4-H has brought together youth from various backgrounds to help them better understand the ag industry, and the use of our natural resources. Through exposure to ag education, we can develop a culture of agricultural advocacy in today's youth, and grow this rural/urban relationship.

And for the past several years, youth participants in the National 4-H Conference have met with Members of Congress, and have made presentations to Federal agencies, and the Agriculture Committee staffs. Today the participants will initiate what will be an ongoing discussion regarding the challenges associated with food and fiber production, enhancing global food security, and how these challenges affect the future of agriculture. In addition to our 4-H delegates, we are honored to have Deputy Secretary of Agriculture Krysta Harden join us in offering her opening remarks.

While the Committee is aware that the challenges that we face will not be resolved overnight, we believe it is vital to the future success of ag to continue this conversation today in a bipartisan way.

[The prepared statement of Mr. Davis follows:]

PREPARED STATEMENT OF HON. RODNEY DAVIS, A REPRESENTATIVE IN CONGRESS
FROM ILLINOIS

Good afternoon and welcome to our first hearing of the Biotechnology, Horticulture, and Research Subcommittee. As policymakers this is a great opportunity to hear from future leaders participating in the National 4-H Conference.

Again, thank you all for being here with us today to discuss how the future of agriculture can be sustained through enhancing the rural/urban coalition. Here in the Agriculture Committee we saw just how challenging it was to enact this most recent farm bill. If we do not mend the divide between rural and urban areas and foster a more widespread understanding of the food and fiber industries and the impact they have on everyday life, it is likely we may face the same challenges in enacting future farm bills.

This Committee strives to promote policies that will protect and increase access to safe and affordable food, but has encountered opposition from organizations and individuals who do not see the need for continued Federal involvement. That is why strengthening the relationship between rural and urban communities is critical to addressing the long term challenges we face in production agriculture.

Today's hearing is the first in a series that will highlight extension and research programs which support the enhancement of a rural/urban coalition. It is fitting that for our introductory hearing, we have 17 distinguished Delegates from the National 4-H Conference with us.

Since its inception, 4-H has been a model for bridging the gap between rural and urban communities. Since 1890, 4-H has brought together youth from various back-

grounds to help them better understand the agriculture industry and the use of natural resources. Through exposure to agriculture education, we can develop a culture of agriculture advocacy in today's youth and grow the rural/urban relationship.

For the past several years, youth participants in the National 4-H Conference have met with Members of Congress, and made presentations to Federal agencies, and the Agriculture Committee staffs. Today, the 4-H participants will initiate what will be an ongoing discussion regarding the challenges associated with food and fiber production, enhancing global food security, and how these challenges affect the future of agriculture. In addition to our 4-H Delegates we are honored to have Deputy Secretary of Agriculture, Krysta Harden, join us to offer opening remarks.

While the Committee is aware that the challenges we face will not be resolved overnight, we believe it is vital to the future success of agriculture to continue this conversation today in a bipartisan way.

I now recognize the Ranking Member, Ms. DelBene for her opening remarks.

The CHAIRMAN. And in that vein, I now recognize the Ranking Member, Ms. DelBene, for her opening remarks.

**OPENING STATEMENT OF HON. SUZAN K. DELBENE, A
REPRESENTATIVE IN CONGRESS FROM WASHINGTON**

Ms. DELBENE. Thank you, Mr. Chairman, and good afternoon, everyone. This is the first Subcommittee hearing that we have held in this Congress, and it also means it is my first hearing as the Subcommittee Ranking Member. I want to thank Chairman Davis for his leadership of the Subcommittee, and want to especially thank him for reaching out very early in this Congress to discuss our mutual priorities, and how we can work together. I look forward to working with him on policies to examine advancements and issues in biotechnology, supporting critical research, and providing support and stability for our horticulture industry. So thank you for—

The CHAIRMAN. Thank you.

Ms. DELBENE.—all your work. Today's hearing is an important one. I am pleased that so many young people are here today who are involved and committed to agriculture. We are often reminded that the average age of a farmer is somewhere in the 50s, but we don't always hear about the great number of youth who are involved. And in my district, and across the country, many farms are second, third and, fourth generation, so it is critical that we continue to make transitioning a farm from one family member to another as easy as possible, as well as support policies that help pave the way for the next generation of farmers.

The folks in this committee room know all too well that there is a disconnect at times between areas that have agriculture and those that don't. We can all agree that passing the 2014 Farm Bill was no easy task, in part because many people around the country don't understand what goes into agriculture, or what makes up the programs that support a vibrant and healthy food supply. We need to do a better job of educating people on the importance of agriculture, and continue to build rural and urban coalitions so that people's understanding of food extends beyond what they see on the grocery store shelf.

Great organizations like 4-H, which I participated in many years ago, I don't want to say how many, but many years ago, are an important part of bridging that divide, and I am looking forward to the presentations that we have here today. Again, thank you, Mr. Chairman, and I yield back.

The CHAIRMAN. Thank you to the Ranking Member too. She has been a great partner, and somebody that I am looking forward to continuing to work with as we move through this Congress.

And it is kind of a role reversal here. I am usually sitting in front of our next individual, our next Member who is going to offer an opening statement. So I am waiting for him to gavel me out, but he doesn't have it, I do. So, with that, I would like to recognize the Chairman of the full House Agriculture Committee, Mike Conaway, for an opening statement.

**OPENING STATEMENT OF HON. K. MICHAEL CONAWAY, A
REPRESENTATIVE IN CONGRESS FROM TEXAS**

Mr. CONAWAY. I thank you, Mr. Chairman, I appreciate that. I just wanted to say two things. One, to express my great confidence in you and the Ranking Member, Ms. DeBene, that lead this Subcommittee to do some terrific work on behalf of the area, since you have jurisdiction over it. I have great confidence in both your leaderships, as you move forward. I appreciate you having this hearing today.

That symbiotic relationship between urban America and rural America has to be discovered by urban America. They benefit from all the hard work that production agriculture does. They don't necessarily know that yet. They will operate in their own self-interest, and we have to explain to them that they enjoy the safest, most abundant, and cheapest food and fiber supply of any developed country in the world based on the hard work, sweat equity, risk-taking, and, yes, the safety net that the American taxpayer provides for production agriculture.

So it is a great story to tell. We need to tell it often, and I appreciate you having this hearing today to start that process of telling that, because the next farm bill will be difficult to pass, and urban America has to know why it is important to them that we get the production safety net correct as we move forward, that we can keep American ag producers in business through the lean times.

So I appreciate you having this hearing, and look forward to the testimony from the USDA, as well as our 17 future leaders in farm policy to have at the hearing. So, with that, I will yield back.

The CHAIRMAN. Thank you, Chairman Conaway. The chair would request that other Members submit their opening statements for the record so the witnesses may begin their testimony, and to ensure that there is ample time for questions. The chair would also like to remind Members that they will be recognized for questioning in order of seniority for Members who were present at the start of the hearing. After that, Members will be recognized in the order of their arrival, and I appreciate the Members' understanding. Witnesses are reminded to limit their oral presentations to 5 minutes. All written statements will be included in the record.

I would like to welcome our first witness to the table, Ms. Krysta Harden, Deputy Secretary of Agriculture at the United States Department of Agriculture, based here in Washington, but originally a Georgian, as we discussed earlier. So welcome to a fellow Atlanta Braves fan. Deputy Secretary Harden, please begin when you are ready.

**STATEMENT OF HON. KRYSTA L. HARDEN, DEPUTY
SECRETARY, U.S. DEPARTMENT OF AGRICULTURE,
WASHINGTON, D.C.**

Ms. HARDEN. Thank you, Mr. Chairman, Ranking Member DelBene, Members of the Subcommittee, and the Chairman, if he leaves. I am pleased to have the opportunity to address you today on the topic of the future of American agriculture. I am looking forward to hearing the testimony of the 4-H'ers and how we at USDA can best serve this new generation of agriculture producers. This is a special day for me personally. I was a proud member of 4-H in my home State of Georgia. My sister and I showed steers and horses, were members of the horse judging team, and participated in leadership development activities. The principles of 4-H continue to shape my life today. I worked here for this Committee a long time ago as a staffer, but I have to tell you—pretty comfortable, so in many ways I am coming home.

Under the leadership of Secretary Vilsack I have dedicated my efforts at USDA to supporting and aligning our resources to best serve the new generation of farmers and ranchers, and to create opportunities for tomorrow's leaders. Our work on new farmers is exciting, it is bipartisan, and inclusive of all the diversity in today's agriculture. New farmers are growing traditional crops and new varieties, organic produce, and heirloom products. They are part of row crop farms, dairies, and community support agriculture programs. They raise beef, pork, and poultry, and fish on operations of all sizes. And they are everywhere, from urban New Orleans, to rural Montana, and even in my home state.

The 2014 Farm Bill laid excellent ground work. Thanks to your work on this Committee, USDA has a comprehensive suite of programs that can support new and beginning farmers and ranchers, including veterans, first generation farmers, those returning home to family farms, and even retirees seeking second careers. USDA has more flexible lending assistance for those who can't get it elsewhere. We have better risk management tools, ways to help support market access, opportunities to grow a farm business, and offer education, research, botanical and conservation assistance to help protect the land and natural resources.

I wish I had time today to go through all the new farmer work that is underway, but here are just a few highlights, and more details are included in my written testimony. Since 2009, FSA has issued approximately 93,000 direct and guaranteed operating loans and farm ownership loans to beginning farmers and ranchers. This fiscal year, FSA has lent almost \$6 million for approximately 2,000 youth for projects. Since 2009 FSA has facilitated 2,300 contracts to transition over 384,000 acres of expiring conservation reserve program land from retired or retiring land owners to beginning or socially disadvantaged producers for sustainable grazing or crop production. Since Fiscal Year 2013, the Department has also made more than 500 investments in infrastructure in all parts of the supply chain for local foods. And from investments in previous farm bills, USDA has awarded more than \$70 million through more than 146 grants to develop education and training programs.

And to help these producers navigate and find the assistance they need, USDA has launched a website, usda.gov/newfarmers,

which, for the first time, creates a single front door for USDA resources that can be used by new and beginning farmers. It is one of our most popular sites, which is a good indicator of the interest, and the need for information.

We are working to make USDA more accessible and relevant in a changing landscape. Among other things, the President's two Fiscal Year 2016 budget requests seek to increase our outreach capacity for new and beginning farmers and ranchers. This investment would support \$2 million for coordinators in key states to facilitate and guide beginning farmer outreach, provide support, to states to facilitate and guide beginning farmer—customer service. I lost my place, I am sorry—customer service training for USDA employees in the field—I bet these students will read better than I do—and enhance partnerships within regional, state, and local communities, including within the agriculture community, and the lending community, and others. An additional \$2 million is for cooperative agreements that would leverage financial literacy, enhance technical assistance, and provide loan support to new and beginning farmers and ranchers.

We are also reviewing our statistical tools, including the Census, to make sure that we are reflecting modern farm structures, including the roles that women and beginning farmers play in agriculture today. But even with these commitments, there is so much left to do, but the reason the effort and the investments are worth it is because of these young people in the room today, and the many others like them across the country.

During my travels and duties as deputy, I have met so many smart, talented young leaders. They inspire me, and help me to know that our future is in good hands. For example, the White House Champions of Change, titled *The Future of American Agriculture*, we heard from a young member of FFA in Washington State who hoped to own his own orchard one day. He shared with us his passion for agriculture and his hard work ethic that he learned from his father, a farm worker.

Last year I had the privilege to go to the Kennedy Space Center, accompanied by students from a Florida 4-H club, to see NASA and the Agricultural Research Service work to develop plants that could be grown in space. Together we learned about biology, and chemistry, and physics, and their applications in agriculture. There is a wide frontier for agriculture and science, and it is amazing to see that these kids can be inspired, and wanting to be a part of it.

In Virginia last year I was honored to be a guest on a family farm where there were three generations side by side. Grandfather and father had done an excellent farming operation, including corn and soybeans, and mom had a pick your own pecan grove. And one of the sons wanted to come home, but he knew he had to add more value to support his family, so he incorporated advanced technologies on their operation, creating new efficiencies, and added raising show pigs.

I am convinced that our industry will be stronger, and our country better, because of these young people. This next generation is so impressive. Now they are more likely to use apps than offices, and texts than make a phone call, so we will have to work with

them in a new way. But this is the challenge that we at USDA are more than ready to meet. I commend the Committee for holding this hearing, for providing the opportunity for 4-H'ers to share their stories, their ideas, and their dreams. You are helping to make them more aware and engaged citizens. I hope you will continue to find ways to include their voice in future sessions. And I also thank you for letting me kick off this hearing. I know we will all learn from these student witnesses, and we will do our jobs better because of them. Thank you.

[The prepared statement of Ms. Harden follows:]

PREPARED STATEMENT OF HON. KRISTA L. HARDEN, DEPUTY SECRETARY, U.S.
DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Chairman Davis, Ranking Member DelBene, and Members of the Subcommittee, I am pleased to have the opportunity to address you today on the topic of the future of American farming and ranching.

I am looking forward to hearing the testimony of my fellow witnesses and learning from their enthusiasm and experiences how we at USDA can best serve this new generation of agricultural producers.

Under the leadership of Secretary Vilsack, I have dedicated my efforts at USDA to supporting and aligning our resources to best serve the new generation of farmers and ranchers and to create opportunities for tomorrow's leaders. USDA has worked to update the way we provide customer service for new and beginning farmers; implemented the farm bill quickly and effectively; worked to update our programs to reflect the new and modern farm needs; updated our budget priorities to reflect priorities for the next generation; and, built new partnership and mentorship opportunities that are helping USDA connect with new farmers and the next generation more effectively.

New Farmers

America's farmers and ranchers have created an impressive legacy of stewardship, productivity, and innovation. But as the average age of farmers and ranchers in America continues to rise, the question of how we build our bench in agriculture becomes ever more important. As you can see here in this room, the work of supporting and engaging the next generation is already well underway.

New farmers are as diverse as American agriculture itself. They are growing traditional crops and new varieties, organic produce and heirloom products. They are part of row-crop farms—employing cutting-edge technology and equipment—and community supported agriculture programs—delivering fresh products directly to their neighbors. They are raising beef, pork, dairy cattle, poultry, and fish on operations of every size. They are everywhere—from urban New Orleans to rural Montana.

USDA Results for New Farmers

Thanks to Congress' support through the 2014 Farm Bill, USDA has a comprehensive suite of programs that can support new and beginning farmers and ranchers, including veterans, first generation farmers, new generations returning home to family farms, and retirees seeking second careers.

To help these producers navigate and find the assistance they need, USDA has launched www.usda.gov/newfarmers, which for the first time creates a single front door for all USDA resources that can be used by a new and beginning farmer and is indexed by customer need. USDA offers lending assistance, risk management tools, market building opportunities, opportunities to grow a farm business, education, research, technical assistance, and conservation assistance to help protect the land and natural resources.

The Farm Service Agency is often “the lender of first opportunity” for many new and beginning producers. Since 2009, FSA has issued approximately 93,000 direct and guaranteed farm operating and farm ownership loans to beginning farmers and ranchers. Further, since the microloan program began in 2013, USDA has issued 12,000 microloans—70 percent of which have gone to beginning farmers.

Of particular interest to this audience, the Farm Service Agency makes available Youth Loans of up to \$5,000 to eligible individual youths, ages 10 to 20, to finance income producing and agriculturally related projects. The project must be modest in size, educational, and initiated and carried out by youths participating in a 4-H Club, FFA, or similar organization. The 2014 Farm Bill removed the prior rural

residency requirement for youth loans and allows FSA to extend youth loan assistance to youth residing in suburban and urban areas to finance eligible agriculturally-related projects. This fiscal year, FSA lent almost \$6 million to approximately 2,000 youth for projects.

USDA also works to help support access to land for new farmers. Since 2009, FSA has facilitated 2,305 contracts to transition over 384,000 acres of expiring conservation reserve program land from retired or retiring landowners to beginning or socially disadvantaged producers for sustainable grazing or crop production.

The 2014 Farm Bill provided USDA additional tools and authorities to help new and beginning farmers to manage the risks inherent in farming and ranching. Beginning farmers are now exempt from administrative fees associated with catastrophic and additional coverage policies; qualify for additional premium support to reduce the cost of insurance; and increase the yield adjustment received for actual production history in low yielding years. For new, beginning, limited resource, or targeted under-served producers, administrative fees for the Noninsured Crop Disaster Assistance Program (NAP) are also waived, and there is a 50 percent premium reduction on higher levels of coverage.

Since FY 2013, the Department has also made more than 500 investments in infrastructure in all parts of the supply chain for local foods, which are often an entry point for new and beginning farmers. These investments include scale-appropriate processing facilities, farmers markets, food hubs, and distribution networks. Farmers markets have increased 180 percent from 2006 and 2014, and the national Farmers Market Directory now lists over 8,200 farmers markets nationwide. About twenty percent of all Value Added Producer Grants have gone to beginning farmers and ranchers to better leverage their operations and grow opportunities.

USDA also provides training, education, and outreach to the new generation of producers through the Beginning Farmer and Rancher Development Program. From investments in the previous farm bill, USDA has awarded more than \$70 million through more than 146 grants to develop education and training programs; the 2014 Farm Bill increased our commitments in this area.

USDA has also focused on building new and fruitful partnerships, both within government and with producer, land, and education/outreach groups. Our work has also focused on building awareness of the issue of new and beginning farmers broadly.

In 2014, USDA and the White House hosted a Champions of Change event, “Future of American Agriculture.” We heard from farmers and ranchers from across the country—with an audience who included land grant universities, producer organizations, land conservation groups, youth development organizations and students, and industry representatives. We saw examples of urban agriculture, peri-urban agriculture, traditional production agriculture, and new and emergent technologies being applied in non-traditional farming models. Together, these bright individuals shared their experiences, challenges, struggles, and hopes for the future, creating a greater awareness of new and beginning farmers nationwide.

In February 2015, USDA announced the Women in Agriculture Mentoring Network. The network is a way to connect, share stories, and create opportunities for women in agriculture to share their advice with one another. The goal is to promote the image, role, and leadership of women not only on the farm, but in leading youth organizations, in conducting cutting edge research at universities across the country, and in the boardrooms of global corporations.

Finally, USDA is working to further enhance our resources to connect with this next generation in a more regionalized and tailored way. The President’s FY 2016 budget request seeks to increase FSA outreach capacity for new and beginning farmers and ranchers as part. This investment would support \$2 million for new farmer outreach coordinators in Strikeforce states to facilitate and guide beginning farmer outreach, provide support and cross-cutting customer service training for USDA employees in the field, and enhance partnerships within regional, state, and local communities, including with the agricultural community, the lending community, and others. An additional \$2 million is for cooperative agreements that would be entered into with private organizations to leverage financial literacy, enhance technical assistance, and provide loan support to new and beginning farmers and ranchers, including leveraging tribal resources in Indian Country, and leveraging urban organizations to help urban beginning farmers.

Youth Efforts

I am so inspired by these bright young students’ energy, enthusiasm, and passion for leadership, agriculture, and their communities. At USDA, a major part of our focus on new and beginning farmers is on youth and how to best connect with and create early opportunities for the next generation.

4-H, a key vehicle for connecting youth with opportunity, has been a leading USDA program in this work for more than a century. It is the largest positive youth development program in the United States and works to connect youth with opportunities to learn, practice, and apply career readiness skills. 4-H currently reaches six million young people across the country and has been used as a youth agricultural education model in over 50 countries.

Implemented through the land-grant university system, 4-H is the youth education program of USDA's Cooperative Extension and receives the majority of its Federal support through Smith-Lever funding. Early advocates for youth development programming realized that a key part of the strength and innovation of agriculture and rural America lay with those who were to inherit it. Today, 4-H has grown to encompass the full spectrum of opportunities, not only within agriculture and rural America, but within personal growth, leadership training, and STEM applications.

I had the privilege of addressing the National 4-H Congress this year, and as I stated there—the lessons that I learned as a proud member of 4-H in my youth—to lend my head to clearer thinking, my heart to greater loyalty, my hands to larger service, and my health to better living—have all informed and guided my work as a professional, a leader, and a public servant.

These principles inform my work today as the Deputy Secretary of Agriculture, as we work to chart a strong and stable path for the next generation of American agriculture.

USDA and Youth Development: Building Results Together

Through 4-H and partner educational youth groups, including National FFA Organization (FFA), USDA has worked to create new paths into careers in agriculture and to celebrate diversity in the agriculture. At the White House Champions of Change we heard from a young member of FFA who hoped to own his own orchard one day. He shared with us the importance of youth agricultural education programs in his development and leadership training, and his passion for following in the footsteps of his father, who as a farm worker had taught his son from an early age a passion for the land and a strong work ethic. At USDA, we are hard at work to honor the passion that new entrepreneurs can bring to farm businesses and to create new pathways into agriculture.

In this work, USDA has engaged a broad coalition partners, including NASA, to discuss and share with youth the abundant opportunities in agriculture, including the exciting connection between disciplines like science, engineering and agriculture. A great example of this type of partnership was a trip that we took late last year to the Kennedy Space Center, accompanied by students from a Florida 4-H club, to see NASA and the Agricultural Research Service's work to develop plants that can be grown in space. Together, we learned about biology, chemistry, physics, and their applications in agriculture. There is a wide frontier for agriculture and science, and together, we are working to engage the scientific communities with those who are passionate about the land and our food supply.

We are working to make USDA more accessible and relevant in a changing landscape. Last year, during the National 4-H Conference, passionate students spoke with representatives from across the Department, including myself, about the importance of communicating with the next generation in new ways—connecting with those who are more used to apps than offices in a way that was meaningful to them. As I speak to you now, another group of 4-H'ers are again preparing to meet with USDA staff and administrators to present their newest ideas for solving today's critical societal issues. In fact, there are 4-H youth leaders presenting briefings to 14 different Federal audiences today—including Health and Human Services, Department of Defense, Department of Transportation, Department of Energy, Department of Education, NASA, Smithsonian, and Housing and Urban Development.

I have met so many new beginning farmers and ranchers this year—many who are 4-H, FFA, and other youth development organization alumni—who are looking for strategies to connect with increasingly urban communities as neighbors, to create profitability and opportunity in urban and peri-urban spaces, to explore strategies to meet the need to expand profitability without being able to add more land, and to meet the challenges of connecting with customers in changing markets. All of these discussions create new opportunities—opportunities to make our programs more flexible and relevant, opportunities to share agriculture with those who are generations removed from the farm, opportunities to be a part of our communities in new ways, and opportunities to build new constituencies for American agriculture.

Conclusion

In conclusion, I would like to thank you for this opportunity to share just a few of the ways that we have been supporting these bright young people. The future of agriculture is exciting, diverse, and full of opportunity, and we at USDA are eager for the opportunity to serve and work alongside the next generation as we have alongside those that have come before.

The CHAIRMAN. Thank you very much for your opening statement. Thank you for being here, Secretary. And Members are advised that a series of votes have been called, and I anticipate this series of votes will last probably at least another 15 minutes. I would ask that Members return to the hearing as quickly as possible from voting. This hearing will stand in recess, subject to the call of the chair.

[Recess.]

The CHAIRMAN. First Chairman mistake, turn the microphone on. I told you it was the first hearing, so we are bound to make mistakes. I would like to welcome the second panel, the participants in the National 4-H Conference. And before we get started with the 4-H panel, I want to extend a special welcome to my constituent, Jill Parrent of Normal, Illinois. Jill has had to put up with me twice now in multiple weeks as I visited her school at Normal West Community High School in Normal, Illinois just a few weeks ago. So Jill, thank you for being here. Thank you for allowing me the opportunity to serve you in central Illinois.

And Jill is a 10 year member of 4-H, and has received the 4-H Premiere Leadership Citizenship Professionalism Award. And yes, Jim, out of my district. Yes. Not only is she a future leader, she is leading in our community right in central Illinois right now. Thanks for being here today, Jill.

I would like each of you to introduce yourself, tell us where you are from, and how long you have been in 4-H. We are ready to hear your presentation.

STATEMENT OF HARLEY ROGERS, HAMILTON, TX

Ms. ROGERS. Hi, I am Harley Rogers. I am a 10 year 4-H'er from Hamilton, Texas. I have grown up on a ranch my whole life, and I have been showing cattle since I was 7 years old.

The beef cattle industry is something that I am very passionate about. A few years ago my siblings and I decided that we wanted to start a grass-fed beef business to meet consumer demand. Grass-fed beef is something that is very popular right now in the urban area, and I started marketing the beef in farm and table markets in the Austin and Dallas area. I was constantly being asked questions about the beef, and the hormones, and the additives that are added into it. And one lady named Constance was very concerned about my beef, so I offered her to come and view my operation in Hamilton, Texas. She drove to Hamilton, Texas in her little Mercedes-Benz. I took her to my ranch, and showed her all my cattle and my everyday routine. She was so impressed, and as a result, I gained this friendship. She would come to my stock shows, and follow me around, and I would show her what we do. She would text me all the time with questions.

Constance told her neighbors in Fort Worth about me, and this proved to me that I have gained the trust of the consumer, and that is something that is very important to me, is bridging the gap

between the producer and the consumer. I realize that this is just a small step in building the bridge between the consumer and producer, while getting the word about where the beef comes from, but I believe that it is my stepping stone into the future of agriculture.

Thank you, and now a delegate from Delaware will speak.

STATEMENT OF ALEXANDRA SWAN, NEWARK, DE

Ms. SWAN. Hi, my name is Alex Swan. I am from Newark, Delaware. I have been in 4-H for 9 years now. Newark is located in New Castle County, which is very limited in farm space. And with the limit in farm space, it is very hard to have farms and agriculture in New Castle. I have had the amazing opportunity to raise market lambs and breed lambs for 6 years now, but due to space left on my small family farm, I do not have the ability to grow my flock by much more.

Although I am fortunate to have a farm and be a part of agriculture in Delaware, there are many people in Delaware who do not get that same experience. Many people in Delaware couldn't even tell you anything about agriculture, or where their food came from. So New Castle County is teaming up with a local creamery called Woodside Creamery in having a day on the farm. It is an opportunity for people in New Castle County to just come and see what farmers do, what it is like to have a dairy farm, and not only a dairy farm. We are inviting other businesses in agriculture to come and speak to the people, and teach them, and inform them of where their food comes from, how it is produced, and other amazing things that agriculture has to offer for us.

And that is our goal in New Castle County, is to try to teach the people in the city that agriculture isn't just stinky farm animals, and that it is so much more, and that it is a necessity for life.

Now our delegate from California will speak.

STATEMENT OF GABRIELLA GERMANN, CERES, CA

Ms. GERMANN. My name is Gabriella Germann. I am from Ceres, California. I have been a 4-H member for 9 years, and I have loved every moment of it. I have lived on a dairy farm my grandfather started in central California for my whole life. Being immersed in the agriculture industry through the dairy business has developed in me a passion for the industry, and for its promotion. Even though I live in a primarily agricultural community, I was still stunned by the lack of awareness among my peers, in youth and teens.

My family, since then, has hosted school visits to our dairy for elementary school children, and I have presented at a local elementary school career days, speaking about the dairy industry, and agriculture as a whole. Through this, I have learned the importance of informing people about agriculture while they are young so as to cultivate early understanding and support, bridging the gap between consumers and producers.

Now a delegate from Illinois will speak.

STATEMENT OF JILLIAN PARRENT, NORMAL, IL

Ms. PARRENT. Thank you very much for the introduction, Mr. Chairman. We are all very excited to be here. My name is Jill

Parrent, and I am from Normal, Illinois. I am a 10 year 4-H member, and I have been involved 4-H throughout my entire life. My grandparents, mom, aunts, uncles, and cousins have all been involved with 4-H for three generations now, so 4-H has always been a family affair.

I view agriculture through several lenses, as I live in town, yet my mother's family owns and operates a ranch and a farm that has been in our family for four generations. My immediate family is also very involved with a local agri-tainment pumpkin farm.

The pumpkin farm is a fall destination for much of our urban population. It focuses on teaching guests about agriculture through activities and entertainment, while working with family memories in the fall. For the 7 weeks we are open, over 3,600—36,000, excuse me, patrons come to our farm. We expose them on how plants are grown, and then—the animals, their behaviors, and the many jobs a farmer has to do, and must do. And nearly every activity available is connected to agriculture in some way, so we are bridging that gap.

School age students come to our farm to experience a taste of agriculture they wouldn't have had the opportunity to experience otherwise. In our 2014 season we had the opportunity to teach over 5,000 students about agriculture using agri-tainment. We teach them many aspects of agriculture. So, for example, we introduce them to eight different field crops that are often grown in Illinois. They get to see the plants, feel the plants, and they also get to see where they come from. The students get to pick their own pumpkin, learning how the pumpkin grows, from the pollination to the beekeeping to even how they are grown. They also learn about the many bushels of corn produced in Illinois specifically, and touch and feel the ear of corn. And some of our favorite sports drinks, and even fireworks, are made using corn, and almost every product on the McDonald's menu uses corn.

I have a passion and a desire to teach the public about agriculture through agri-tainment that excites them, while keeping them interested in the lessons that we teach them. If I have the opportunity to impact 20 kids, that is 20 kids that know more about agriculture than they would have without us. Thank you.

And now a delegate from Indiana will speak.

STATEMENT OF SHELBY NIERMAN, BROWNSTOWN, IN

Ms. NIERMAN. Hi, my name is Shelby Nierman. I have grown up on a small dairy farm in Brownstown, Indiana, where I have been involved in the 4-H Program for 10 years. Living in a rural area, I am surrounded by agriculture. My parents and grandparents have instilled in me the value of 4-H, and because of that, I have had numerous opportunities to meet people from across the United States.

A few years ago I was given the opportunity to be a part of the first Indiana 4-H Dairy Youth Academy. This experience brought together 14 youths from across Indiana with an interest in the agriculture industry. We were able to visit farms across Indiana, Michigan, Wisconsin, New York, and even Canada. Through this experience, even with an agriculture background, I was surprised with the different ways that farmers manage their operations.

If you ask a farmer what he would do if he wasn't in this industry, he will more than likely say he hasn't thought of doing anything else. It is important to understand that farmers are passionate about their jobs in the agriculture industry. This select group would not have incentive to complete the hard work of their job without passion and dedication.

The opportunities I have had allow me to not only share my story, but accept the diverse backgrounds of others. Programs such as 4-H are essential in bridging the gap between rural and urban areas. The 4-H Program brings together youth with individual experiences, passions, and beliefs to bridge the gap between rural and urban perspectives of agriculture. Producers and consumers can find a common interest through the 4-H Program. We have the opportunity to hear opinions of consumers through 4-H, and, because of this, we can improve, innovate, and learn from each other.

Now a delegate from Rhode Island will speak.

STATEMENT OF KAILEY FOSTER, SOUTH KINGSTON, RI

Ms. FOSTER. Hi, my name is Kailey Foster, and I am from Rhode Island. I have been involved in 4-H for about 6 years now. Unlike most of my fellow delegates, I did not grow up with too much agriculture in my life. Sure, my dad is a milk truck driver, and his family members are all farmers, but other than that, I have no connection with that way of life. My mom grew up in a city, where her idea of a major farm was an apple orchard. On the other hand, my dad grew up on a farm, and was very involved with 4-H and FFA. With that being said, I was always preached to by my mom that farms are gross, dirty, and smelly.

It wasn't until I was 10 years old that I caught my first glimpse of what 4-H was. My dad took me to a local fair to watch my very first dairy show. I remember how excited my dad was to show me this part of his childhood, and him telling me that if this was something I wanted to do, I could. Watching my first show changed my look on agriculture. Now the tough part would be to get my mom to have a change of heart like I did.

My mom eventually gave in and let me join, but she wasn't 100 percent on board with the idea, so that year I joined 4-H and worked hard with my dad to prepare my animal. When that fair season come—when fair season comes along, my mom did come as a support, but kept her distance from the cows. She liked to spend her time at the fluffy rabbits cages. When she found out that these fluffy rabbits were also a part of 4-H, she took this as her way to accept 4-H better. Since then, we have had many rabbits. At one point, we were even caring for 50.

Even though we have had many rabbits, I have never actually had a cow of my own. As the years have gone by, I have gotten more and more involved with 4-H and with dairy cows, and my sisters have also joined my club with dairy projects. This made it so my mom learned more about agriculture, and she started to accept this way of life, and 6 years later, I am actually getting a cow of my own. My experience of coming from a family with both urban and rural backgrounds has given me the opportunity to be my own bridge within my family.

Now a delegate from Connecticut will speak.

STATEMENT OF DANIELLE BRAZEAU, STORRS, CT

Ms. BRAZEAU. Hello. My name is Danielle Brazeau, and I am from Storrs, Connecticut. This is my 6th year in 4-H. Growing up in a suburban area, I have developed an appreciation for agriculture and farmers through 4-H. My 4-H animal projects have included horses, goats, rabbits, and chickens. I have learned that it doesn't matter how you feel, or what the weather is like, the animals still need to be fed, watered, and cared for. This is something I feel many people in my community do not understand, that the animals do not just sit there and take care of themselves. Raising livestock is a huge commitment, and a lot of hard work. I was given three chickens by somebody in my local community that loved the idea of having fresh eggs laid by their own backyard chickens. But once they got the chickens, they realized that they weren't up for the work involved.

I, and—along with many others involved with animal husbandry have a great passion for what we do, and in my local 4-H and FFA, we attend public events to educate the public about our agricultural related projects, and all the hard work that goes into them. We want them to understand not only where their food comes from, but how it is produced.

It is also important to educate the youth about agriculture, because they are the next generation of consumers. If they know more about where their food comes from, and how it is produced, it will be the next step in helping to bridge the gap between the consumer and the producer.

Thank you. Now a delegate from California will speak.

STATEMENT OF COLTON SEARCY, PORTERVILLE, CA

Mr. SEARCY. Hi, my name is Colton Searcy, and this is my 10th year in 4-H, and I live in Porterville, California. I live in the largest agricultural producing county in the nation, but I have no agriculture background. 4-H and school field trips have taught me everything I know about agriculture.

Being in the county that I live in, the drought has affected the way I live. Four years of below average rainfall has caused the wells on the east side of Porterville to completely dry out. Portable showers, portable toilets, and bottled water are a necessity.

Governor Brown has just imposed a 25 percent restriction on water throughout the state, but how are you supposed to protect water if we don't have any? If we build water infrastructure and contain the water, we will have, we will revive the local economy from all the—crops.

Even with the water restrictions, we would need 11 trillion gallons of water. That equates to the amount of water Niagara Falls puts out in about 150 days. If we work together with agriculture and urban areas, we can make the best of the drought. Thank you.

Now a delegate from Minnesota will speak.

STATEMENT OF HANNAH HASBARGEN, WHEATON, MN

Ms. HASBARGEN. Good afternoon. My name is Hannah Hasbargen, and I live on a family operated farm in the Red River Valley of Minnesota. When I was 6 years old, I began to show livestock in 4-H, and this is my 13th year being an active 4-H'er.

Today I would like to talk about the future of agriculture, and I will start by comparing the United States to other countries around the world.

By 2050 the world's population is projected to reach 9.1 billion, which is 34 percent higher than it is today. As you can see in this table, the percentage of people who farm in Africa is 65 percent, whereas in the United States, only one percent of the population is directly involved in the production of agriculture. This is very interesting when looking at the next comparison, which is the cost of food as a percentage of disposable income. Consumers in the United States spend less than ten percent of their disposable income on food, while their African counterparts spend approximately 70 percent.

We face a number of challenges internationally as producers, including sustaining global food security. However, there are also domestic challenges. Some of the major issues include consumer perceptions of biotechnology, food safety and labeling, and pesticide use. When you take these technological advances and innovations away from the farmers, you decrease production levels, while increasing prices. We need to remember that, as agriculture producers, we are working to feed the masses, and further improve agriculture practices.

U.S. ethanol production has increased rapidly since 2006. The expansion in the domestic ethanol production has been one of the main drivers of the corn market. During a super-cycle of agriculture, corn reached a high of \$8 per bushel in the Red River Valley, and soybeans soared to \$18.

As farmers, we took our profits from the high prices of the cycle and invested them by pattern tiling 50 percent of our land, updating our crop drying systems to add efficiency and reduce cost. We also use GPS and precision guidance technology on all of our tillage, spray, planting, and harvesting equipment to reduce costs by eliminating overlap. Our operation has integrated this into field mapping with yield and fertility that allows us to variable rate seed and fertilize, which saves up to 25 percent on costs. These innovations have been made by the majority of farmers in our area, and should leave us in good condition to weather the period of low prices that we now find ourselves in due to the downturn of the cycle.

The super-cycle has shifted paradigms of agriculture and rural America, creating challenges, chaos, and opportunity, which will be influenced by the policies made in this room. So will we face a situation like other developing countries, where a higher percentage of our disposable income is used to feed the nation, or will we allow technological advances to continue to infiltrate the agriculture industry?

Now a delegate from Wyoming will speak.

STATEMENT OF BROOK WEIBEL, BURNS, WY

Ms. WEIBEL. Hi, my name is Brook Weibel. I am from Burns, Wyoming, which is about 25, 30 miles east of Cheyenne. I have been an active 4-H member for 10 years now, and I have been in FFA for 5 years. I do a variety of projects in 4-H. For example, I

have done shooting sports, photography, as well as other static exhibits.

My main project, however, is pigs. I have shown market pigs for about 8 years. My parents both grew up on farms and ranches, and they both bred their own pigs, and so when we joined 4-H, my sister and I, they got us pigs to see if it was something we wanted to pursue even further, and they were right. My sister and I loved having and showing pigs.

We have shown pigs every year, but we haven't really done much else with them. This year, however, we talked about trying to breed them. My parents both bred their pigs when they were in 4-H, like I said previously, and then a couple years ago my sister had a really nice gilt, and we decided that we were going to breed her. But, unfortunately, the gilt had gotten sick, and so we had to put her down. We haven't really talked about it since then until this year. We have a lot of things to think about when we are trying to decide this, such as whether or not we will AI the pigs, or we will find a boar, and take that route.

We live on a 40 acre farm, but we don't really have any crops. We just mainly have animals, so we can't really grow our own feed like other farmers do, so it will be expensive to buy feed and other equipment for this project. But the other obstacle we are trying to work through is that we really don't have any facilities on our property to efficiently do this. This being said, in the Burns community, there are several pig breeders, and so we have the option of maybe using some of their facilities, or having them help us out in our first couple of years.

The biggest obstacle, however, is having someone available to feed the pigs all the time, because my family and I are very active, and we are gone quite a bit. But though there are many obstacles, I know my family can overcome them, and it makes me excited to even think about getting up in the morning and hanging out with the piglets.

My future in agriculture is breeding pigs and having more facilities at my house to be able to do it on my own. Thank you.

Now a delegate from Colorado will speak.

STATEMENT OF WADE HOFMEISTER, BRUSH, CO

Mr. HOFMEISTER. Hello. My name is Wade Hofmeister, and I am from a small family-owned farm from Colorado. Our main crop that we grow is alfalfa that we use to feed our animals. Using this method, we have reduced the cost that we would spend on buying hay from auctions, or other sources. This method has also helped in making our feed processes faster.

The problem that we have faced, though, with growing alfalfa is the infestation of insects. This is a problem because the quality and quantity of the crops is diminished. Also, it needs a sufficient amount of water for the plant to derive from. It also must be plowed, ideally, every 5 years because it does not provide as well as it ages. Growing this crop has helped my family and I through tough times, and it has provided food for my animals in 4-H.

Now a delegate from Nevada will speak.

STATEMENT OF GARRETT TOMERA, SPRING CREEK, NV

Mr. TOMERA. Hi, my name is Garrett Tomera, and I am from Nevada. I have been in 4-H for 10 years now, and I am also a 6th generation rancher from northern Nevada. My family has been ranching for more than 150 years.

Over the past years, my family has noticed that the relationship between the producer and the consumer has been growing apart. My mom, Kristi Tomera, and I started researching how to connect with the consumer. We found out that in one of the southern states they have an app called the meet your farmer in the grocery store. This app allows them to virtually meet through a video that tells them about how the food got from the farm to the store.

One way we educate our community in our county is that we bring ag in the classroom to the middle school. We bring livestock from all over the county and tell the kids about the animal's by-products, and how they are made.

Now a delegate from Idaho will speak.

STATEMENT OF TYLER BASSET, ST. CHARLES, ID

Mr. BASSET. Hi, my name is Tyler Basset, from Bear Lake, Idaho. I have been in 4-H for 6 years and counting. In my little school, students have the option of taking ag classes. A decent amount of students take these classes, but more for a free period than to actually learn and better themselves. It is not that my teacher doesn't teach them, because he does, and I believe that he does a really good job at it. It is that my generation has no interest in agriculture, and does not care. They have no real respect for it. I have this image in my mind that if this continues, my generation's level of using and understanding agriculture will drop dramatically. This could, in turn, change the outcome of students that go into the field of agriculture to produce the things we need for everyday life.

I believe that if we include more activities involving outdoor agriculture opportunities that students that might not have an interest in agriculture will find that it is an extremely interesting and useful tool. Students will then respect it more, and will want it in their daily lives. If more students find interest in agriculture, then they may go into it as a career, which will in turn increase production of required products. I find it very important that this happens, and that agriculture is not forgotten about in my, or any generation.

Now a delegate from Missouri will speak.

STATEMENT OF DARBY SCHMIDT, DEFIANCE, MO

Ms. SCHMIDT. Hello, my name is Darby Schmidt, and I am from Defiance, Missouri. I have been a 4-H member for 10 years. I grew up in a small town outside of St. Louis, Missouri, but I have attended a large suburban school my entire life. There is a decreasing number of farms in my community, and little to no students know about agriculture, and there is no agriculture courses available at my school. As a 4-H project I started raising and showing Boer goats.

4-H was my gateway to agriculture. I have had many opportunities to see firsthand the public's misconception of today's agri-

culture. Most of my classmates have no idea where their food comes from, and have a lack of knowledge of today's modern agriculture.

When my friends come over to my house, they are very interested to learn about how their food is raised. They don't understand how livestock is fed and watered every day. They also don't understand how, when livestock is sick, that medication is required.

I believe that it is important to teach the importance of modern agriculture in today's schools. To improve the future of agriculture, we must educate our youth consumers. Everyone eats, so it is important for everyone to learn about where their food comes from.

Through advocating in my school, and being a member of the 4-H Program, I decided to pursue a degree in agribusiness and be a part of the future of agriculture.

Now a delegate from Maine will speak.

STATEMENT OF SHAYNEN SCHOFIELD, KNOX, ME

Mr. SCHOFIELD. Hello. My name is Shaynen Schofield. I am from Waldo County, Maine. I do not personally live on a farm, but agriculture is a huge part of my life. I have been in 4-H for 10 years, and in this time I have shown sheep, goats, pigs, and I currently show dairy cows. My school is divided into two groups, kids in an agriculture background, and the kids with little to no agriculture background. I personally have an agriculture background. I spend most of my summers showing cows at fairs, and at my uncle's farm taking care of the animals.

A lot of the kids at my school with little to no agriculture background don't understand the amount of effort that is put into taking care of the animals. Waking up early to get chores done before breakfast, and we start chores around 3:00 so we can get done at a decent hour.

I believe if we had a special day for agriculture awareness, where people could go to a farm near them and see where their food comes from, and how the food is raised, and the amount of effort that is put into raising and taking care of the animals would really help people to respect farmers and ranchers more.

Now a delegate from Colorado will speak.

STATEMENT OF JENNIFER GOLBUFF, FORT COLLINS, CO

Ms. GOLBUFF. Hello, my name is Jenni Golbuff. I am 17 years old, and I have been a 4-H member for just about 13 years now. I am a supporter of the biotech crops, mainly because these crops can help protect our resources. These modified crops actually use less fuel, help water efficiency, reduce spray uses, and give farmers better harvest per acre.

When I was a little girl, a large F2/F3 tornado ripped through my little farm town in Minnesota. A lot of buildings were destroyed, but what was worse was the harvest that fall. My little town mainly harvested soybeans and corn, and most of our harvests were destroyed in that May Day tornado.

When I found out about the biotech crops a few years later, I was amazed. Just imagine, traits and such being added to corn and other crops so that they could have strong stalks, and not be as

easily destroyed in storms? Better harvests, and less resources to use to help feed the future generations? That is what we need to be thinking about right now, not just for the present farmers, but for the future farmers, and the future generations, like my fellow delegates and myself, who are the next generation of farmers and consumers.

Thank you. Now a delegate from Texas will speak.

STATEMENT OF MERAH WINTERS, BELTON, TX

Ms. WINTERS. Hello. Okay. Sorry for that. Hello, my name is Merah Winters. Located in central Texas, I live in a large urban and rural community. My 4-H involvement spans 9 years so far. Within that urban setting, it amazes me that the lack of awareness many citizens in the community have. When asked, where does your food come from, many consumers will respond the grocery store, or I don't know. 4-H is a program that has allowed me to help reverse this loss of knowledge, and teach some of the essential skills learned through agriculture.

Agriculture has immensely benefited from great technological advancements, however, these advancements are slowly becoming dysfunctional and damaging. Within the production of livestock, many popular technologies, such as artificial insemination, *in vitro*, and flushing help the producer to turn out healthier and larger yields of their product.

Now, don't get me wrong, these technologies do have their perks, but their cons have a much larger impact on the future of agriculture. When producers take these advances to the extreme, excuse me, scary things can happen. The loss of diversity in genetic pools when producers breed for certain traits leads to the loss of immunities, genetic mutations, and congenital defects.

My best example of genetic diversity lives in my barn. I have a 10 year old 300 pound mutt of a goat. Hash Brown, in the picture, was my very first 4-H project, from bottle baby to a vertical 8' tall goat on his back hooves. This genetic mashup has never gone down due to illness. His only breeding—his only medication is the monthly worming, and an occasional booster shot. His diversity and breeding has aided him in being an extremely healthy livestock example.

Thank you for your time, and this opportunity to be the youth voice of agriculture. We will see you all in the barn, and the floor is now open to questions.

[The combined prepared statements of the 4-H presenters follow:]

COMBINED PREPARED STATEMENTS OF 4-H PRESENTERS

PREPARED STATEMENT OF HARLEY ROGERS, HAMILTON, TX

Hi I'm Harley Rogers. I am a 10 year 4-H'er from Hamilton, Texas. I've grown up on a ranch my whole life and I have been showing cattle since I was 7 years old. The beef cattle industry is something that I am very passionate about. A few years ago my siblings and I decided we wanted to start a grass-fed beef business to meet the consumers demand. Grass-fed beef is something that is very popular in the urban area. I started marketing the beef in Farm to Table markets in the Austin and Dallas area. I was constantly being asked questions about the beef I was marketing. The buyers would e-mail me questions concerning hormones and additives in the beef. A lady named Constance was very concerned about my steers, so

I gave her the chance to come to Hamilton and view my operation. Constance came down to small-town Hamilton, Texas in her little Mercedes-Benz. I took her to my ranch and showed her all my cattle and my everyday routine. She was so impressed and as a result Constance and I became friends. She would come to my stock shows and watch me show, and she would text me all the time. Gaining this trust between the consumer and producer is something that I believe is very important. Constance told all her neighbors in Fort Worth about me, which proved to me that she trusts me and they trust me. I realize that this is just a small step in building the bridge between consumer and producer while getting the word out about where your food comes from, but I believe that this is my stepping stone into the future of Agriculture.

Now, a delegate from Delaware will speak.

PREPARED STATEMENT OF ALEXANDRA SWAN, NEWARK, DE

Hi my name is Alexandra Swan, I am from New Castle, Delaware, and I have been in 4-H for 9 years. New Castle is very limited on farm space, and limits the ability to have farms and to have an agriculture view. I have been blessed to have the opportunity to raise market and breed lambs, but due to the space left on my families small farm I do not have the ability to grow my farm and buy ten more head of lambs. Although I am fortunate to have a farm and be a part of agriculture in Delaware, there are many people who do not get to be a part of agriculture. 4-H has allowed me to be an advocate in livestock but many kids in 4-H do not get to have livestock. Many kids in Delaware 4-H do crafts, foods, and clothing but have no interest in agriculture or where their food comes from. New Castle 4-H is putting together a "Day on the Farm". With "The Day on the Farm" 4-H is teaming up with Woodside Creamery which is a local creamery to teach families about being on a farm and what is really behind farming, not only at the creamery but also other organizations that promote agriculture are being invited to talk about their aspect on farming and responsibilities on their own farms. Our goal in New Castle is to bring the urban and rural community together so that agriculture can grow in New Castle, Delaware.

Now, a delegate from California will speak.

PREPARED STATEMENT OF GABRIELLA GERMANN, CERES, CA

My name is Gabriella Germann and I am from Ceres, California. I have been a 4-H member for 9 years. I've lived in a dairy farm my grandfather started in Central California my whole life. Being immersed in the agriculture industry through the dairy business, I have developed a passion for the industry and its promotion. Even though I live in a primarily agricultural community, I was stunned by the lack of awareness among youth and teens. My family has hosted school visits to our dairy for elementary school children and I have presented at local elementary school career days, speaking about the dairy industry and agriculture as a whole. Through this, I have learned the importance of informing people about agriculture while they are young, so as to cultivate early understanding and support, bridging the gap between consumers and producers.

Now, a delegate from Illinois will speak.

PREPARED STATEMENT OF JILLIAN PARRENT, NORMAL, IL

My name is Jill Parrent and I am a delegate to National 4-H Conference from Normal, Illinois.

I am a 10 year 4-H'er and have been involved in 4-H my entire life. My grandparents, mom, aunts, uncles, and cousins have been involved in 4-H for three generations so 4-H has been a family affair. I view agriculture through several lenses as I live in a town of 200,000 yet my mother's family owns and operates a ranch and farm that has been in the family for four generations. My immediate family is involved in an agri-tainment pumpkin farm.

The pumpkin farm is a fall destination for much of our urban population to visit. It focuses on teaching guests about agriculture through activities and entertainment while making family memories in the fall. For the 7 weeks we are open, over 36,500 patrons come to our farm. We expose them on to how plants grow, animals and their behaviors, the many "jobs" a farmer has and must do, and how agriculture influences our lives each and every day. Nearly every activity available is connected to agriculture in some way.

School age students come to our farm to experience a taste of agriculture they wouldn't have the opportunity to experience otherwise. In our 2014 season we had the opportunity to teach over 4500 students about agriculture using agri-tainment.

We teach them many aspects about agriculture. For example, we introduce them to eight different field crops grown often in Illinois. They get to see the plants, feel the stalks and seeds, and learn why the crop is produced. The students pick their own pumpkin, learning how a pumpkin grows—from the seed in the soil to the flower, the importance of bee pollination, and finally a ripened product. They also learn about the many bushels of corn produced in Illinois, touch and feel an ear of corn, and learn that byproducts of corn include the sweetener in some of their sodas and sport drinks, the coloring in fireworks on the 4th of July, and that nearly every item on the menu at McDonalds contains corn or soybeans. I have a passion and desire to teach the public about agriculture through activities that excite them while keeping them interested in the lessons we teach them. If I have the opportunity to impact 20 kids, I know that is 20 lives more than I would have been able to impact without our agri-tainment farm.

Now, a delegate from Indiana will speak.

PREPARED STATEMENT OF SHELBY NIERMAN, BROWNSTOWN, IN

Hi my name is Shelby Nierman. I have grown up on a small dairy farm in Brownstown, Indiana where I have been involved in the 4-H program for 10 years. Living in a rural area, I am surrounded by agriculture. My parents and grandparents have instilled in me the value of 4-H, and because of that, I have had numerous opportunities to meet people from across the United States. A few years ago, I was given the opportunity to be a part of the first Indiana 4-H Dairy Youth Academy. This experience brought together fourteen youth from across Indiana with an interest in the agriculture industry. We were able to visit various farms in Indiana, Michigan, Wisconsin, and Canada. Through this experience, even with an agricultural background, I was surprised with the different ways that farmers manage their operations. If you ask a farmer what he would do if he wasn't in this industry, he will more than likely say he hasn't thought of doing anything else. It is important to understand that farmers are passionate about their jobs in the agriculture industry. This select group would not have the incentive to complete the hard work of their job without passion and dedication. The opportunities I have had allow me to not only share my story, but also accept the diverse backgrounds of others. Programs, such as 4-H, are essential in bridging the gap between rural and urban areas. The 4-H program brings together youth with individual experiences, passions, and beliefs. To bridge the gap between rural and urban perspectives of agriculture, producers and consumers can find a common interest through the 4-H program. We have the opportunity to hear the opinions of consumers through 4-H, and because of this, we can improve, innovate, and learn from each other.

Now, a delegate from Rhode Island will speak.

PREPARED STATEMENT OF KAILEY FOSTER, SOUTH KINGSTON, RI

Hi my name is Kailey and I'm from Rhode Island. I've been involved in 4-H for about 6 years. Unlike most of my fellow delegates I did not grow up with too much agriculture in my life. Sure, my dad is a milk truck driver and his family members are all farmers, but other than that I had no connection to that way of life. My mom grew up in the city where her idea of a major farm was an apple orchard. On the other hand, my dad grew up on a farm and was very involved with 4-H and FFA. With that being said I was always preached to by my mom that farms are gross, dirty, and smelly. It wasn't until I was 10 years old when I caught my first glimpse of what 4-H was. My dad took me to a local fair to watch my very first dairy show. I remember how excited my dad was to show me this part of his childhood and him telling me if this was something I wanted to do I could. Watching my first show changed my look on agriculture, now the tough part would be to get my mom to have a change a heart like I did. My mom eventually gave in and let me join but she wasn't 100% on board with the idea. So that year I joined 4-H and I worked hard with my dad to prepare my animal. When fair season comes along, my mom did come as support but kept her distance from the cows. She liked to spend her time at the "fluffy rabbit" cages. When she found out that these "fluffy rabbits" are also a part of 4-H she took that in as her way to accept 4-H better. Since then we have had many rabbits, at one point we were caring for 50 rabbits. Even though we have had many rabbits, I have never had a cow of my own. As the years have gone by I have gotten more and more involved with 4-H and with the dairy cows and my sisters also joined my club also with dairy projects. This made it so my mom learn about agriculture and she started to except this way of life and 6 years later I am getting a cow of my own. My experience of coming from a family with both urban and rural backgrounds has given me an opportunity to be my own bridge within my family.

Now, a delegate from Connecticut will speak.

PREPARED STATEMENT OF DANIELLE BRAZEAU, STORRS, CT

Hello, my name is Danielle Brazeau. I am from Storrs, Connecticut and this is my sixth year in 4-H. Growing up in a suburban area I have developed an appreciation for farmers through 4-H. My 4-H animal projects include rabbits, chickens, horses, and goats. I have learned that it doesn't matter how you feel or what the weather is like, the animals still need to be fed, watered, and cleaned. This is something I feel many people in my community do not understand. The animals don't just sit there and care for themselves. Raising livestock is a huge commitment and a lot of hard work but is also very rewarding. I was given three chickens by someone in my town who like the idea of fresh eggs but once they got chickens they realize that they weren't up for the work involved. I along with many others involved with animal husbandry have a great passion for what we do. In 4-H and FFA we attend public events to educate people about our agricultural related projects and all the hard work that goes into them. We want them to understand not only where their food comes from but also all the work and commitment that goes into producing it. It is also important to educate youth about agriculture because they are the next generation of consumers. If they know more about how their food is produced it will help bridge the gap between the producer and consumers.

Now, a delegate from California will speak.

PREPARED STATEMENT OF COLTON SEARCY, PORTERVILLE, CA

Hi, my name is Colton Searcy, this is my 10th year in 4-H, and I live in Porterville, CA. I live in the largest agriculture producing county in the nation, but I have no agriculture background. 4-H and school field trips have taught me everything I know about agriculture. Being in the county that I live in, the drought has affected the way I live. Four years of below average rainfall has caused the wells on the east side of Porterville to completely dry up. Portable showers, portable toilets, and bottled water are a necessity. Governor Brown has just imposed a 25% restriction on water throughout the state, but how are you going to restrict water if we don't have any? If we build water infrastructures and contain the water, we will revive the local economy from all the loss of crops. Even with the water restrictions, we would need to have 11 trillion gallons of water, that equates to the amount of water Niagara Falls puts out in 150 days. If we work together with agriculture and urban areas, we can make the best out of the drought.

Now, a delegate from Minnesota will speak.

PREPARED STATEMENT OF HANNAH HASBARGEN, WHEATON, MN

Good afternoon, my name is Hannah Hasbargen and I live on a family operated farm in the Red River Valley of Minnesota. When I was 6 years old, I began to show livestock in 4-H and this is my thirteenth year being an active 4-H'er. Today I would like to talk about the Future of Agriculture and I will start by comparing the United States to other countries around the world.

By 2050, the world's population is projected to be 9.1 billion, which is 34% higher than it is today. As you can see in this table, the percentage of people who farm in Africa is 65% whereas in the United States only 1% of the population is directly involved in the production of agriculture. This is very interesting when looking at the next comparison, which is the cost of food as a percent of disposable income. Consumers in the U.S. spend less than 10% on food while their African counterparts spend approximately 70% of their disposable income on food.

We face a number of challenges internationally as producers including sustaining global food security; however, there are also domestic challenges. Some of the major issues include consumer perceptions of biotechnology, food safety and labeling, and pesticide use; when you take these technological advances and innovations away from farmers you decrease production levels while increasing prices. We need to remember that as agriculture producers we are working to feed the masses and further improve agricultural practices.

U.S. ethanol production has increased rapidly since 2006. The expansion in domestic ethanol production has been one of the main drivers of the corn market.

During the Super-Cycle of Agriculture, corn reached a high of \$8 per bushel and soybeans soared to \$18. As farmers, we took our profits from the high prices of the Super-Cycle and invested them by pattern tiling 50% of our land, updating our crop drying systems to add efficiency and reduce cost. We also use GPS and precision guidance technology on all of our tillage, spray, planting, and harvesting equipment to reduce costs by eliminating overlap.

Our operation has integrated this into filed mapping with yield and fertility that allows us to variable rate seed and fertilizer, which saves us up to 25% on costs. These innovations have been made by the majority of farmers in our area and should leave us in good condition to weather the period of low prices that we now find ourselves in due to the downturn of the cycle.

The Super-Cycle has shifted paradigms of agriculture and rural America, creating challenges, chaos, and opportunity, which will be influenced by the policies made in this room. So, will we face the situation like other developing countries where a higher percentage of our disposable income is used to feed the nation or will we allow technological advances to continue to infiltrate the agriculture industry?

Now, a delegate from Wyoming will speak.

PREPARED STATEMENT OF BROOK WEIBEL, BURNS, WY

Hi my name is Brook Weibel. I live in Burns Wyoming, about 25–30 miles East of Cheyenne. I have been in 4–H for 10 years and FFA for 5 years. I do a variety of projects in 4–H; for example I have done shooting sports, photography, as well as other static exhibits. My main project though is pigs; I have shown market pigs for about 8 years. My parents both come from a farming and ranching background, and got my sister and I started with pigs when we were younger just to see if it was something we wanted to pursue even further. They were right, my sister and I loved having and showing pigs! We have always shown our pigs at fair but we haven't every done anything else with them.

This year however, we talked about trying to breed them. My parents both breed their own pigs when they were in 4–H and FFA. A couple years ago my sister had a really nice gilt, and we decided we were going to try and breed here, but then she got sick and we had to put her down. We haven't really talked about it since then; that is until now. We have a lot of things that we have to think about, such as whether or not we will A.I. (artificial insemination) the pig(s), or if we will find a boar and go down that road.

We live on a 40 acre farm, but we don't really have any crops just animals, so we can't make our own feed like other people do, so it will be expensive buying feed. The other obstacle we are trying to work through is that we don't really have the facilities on our property to properly breed the pigs. This being said in the Burns community one of the main showing animals is pigs, and we have two or three people who breed them in Burns alone, and a few people in Pine Bluffs about 15 miles East of Burns. The biggest obstacle though is having someone available to feed the pigs every day, because my family is very active and we are gone quite a bit.

Though there are many obstacles, I know my family can overcome them, and it makes me excited to even think about getting up in the mornings and hanging out with piglets! My future in agriculture is hopefully breeding pigs, and having more facilities at my house to be able to do it on our own.

Now, a delegate from Colorado will speak.

PREPARED STATEMENT OF WADE HOFMEISTER, BRUSH, CO

Hello, my name is Wade Hofmeister and I am from a small family owned farm in Colorado. Our main crop that we grow is alfalfa that we use to feed to our animals. Using this method we have reduced the amount of money that we would spend on buying hay from auctions and other sources. This method has also helped with making our feeding process faster. The main problems that we have of growing alfalfa are infestation of insects. This is a problem because the quality and quantity of the crop is diminished. Also it needs a sufficient amount of water for the plant to thrive from. It also must be plowed up ideally every 5 years because it does not provide well as it ages. Growing this crop has helped my family and I through tough times and provided food for all of my animals in 4–H.

Now, a delegate from Nevada will speak.

PREPARED STATEMENT OF GARRETT TOMERA, SPRING CREEK, NV

Hi, my name is Garrett Tomera and I am from Nevada. I have been in 4–H for 10 years. I am a sixth generation rancher of Northern Nevada. My family has been ranching for more than 150 years. Over the past years my family has noticed that the relationship between the producer and the consumer has been growing apart. My mom Kristi Tomera, and I started researching how to connect with the consumer we found out that in one of the southern states they have an app called, "meet your farmer" in their grocery store. This app allows them to virtually meet the producer through a video that tells them about how their food got from the farm to the store. One way we educate our community is that we have an "agriculture

in the classroom” at our local middle school. We bring livestock and tell the kids about the animals by products and how they are made.

Now, a delegate from Idaho will speak.

PREPARED STATEMENT OF TYLER BASSETT, ST. CHARLES, ID

My name is Tyler Bassett from Bear Lake Idaho. I have been in 4-H for 6 years and counting. In my little school students have the option of taking ag classes. A decent amount of students take these classes, but more for a free period than to actually learn and better themselves. It is not that my teacher doesn't teach them because he does and does an amazing job at it. It is that my generation as no interest in Agriculture and does not care. They have no real respect for it. I have this image in my mind that if this continuous my generation's level of using and understanding Agriculture will drop dramatically. This could, in turn, change the outcome of students that go into the field of Agriculture to produce the things we need for everyday life. I believe that if we include more activities involving outdoor Agriculture opportunities, that students that might have not have an interest in Agriculture will find that it is a extremely interesting and useful tool. Students will then respect it more and will want it in their daily lives. If more students find interest in Agriculture they then may go into it as a career, which will, in turn, increase production of required products. I find it very important that this happens and that Agriculture is not forgotten about in my or any generation.

Now, a delegate from Missouri will speak.

PREPARED STATEMENT OF DARBY SCHMIDT, DEFIANCE, MO

Hello, my name is Darby Schmidt and I am from Defiance, MO. I have been a 4-H member for 10 years. I have grown up in a small town about an hour outside of St. Louis, but have attended a large, suburban school system my entire life. There is a decreasing number of farms in my community, and only a few students with agriculture backgrounds. As a 4-H project, I started raising and showing Boer goats. 4-H was my gateway to agriculture. I have had many opportunities to see first-hand the public's misconception of today's agriculture in my school. Most of my classmates have no idea where their food comes from and have a lack of knowledge about modern agriculture. When my friends come over to my house they are very interested to learn about how their food is raised. They don't understand how livestock has to be feed and watered everyday. They also don't understand that when the goats are sick, I have to give them medication. I believe that it is important to teach the importance of modern agriculture in our schools and to improve the future of agriculture we must educate our youth consumers. Everyone eats, so it is important for everyone to learn about where their food comes from. Through advocating in my school and being a member of the 4-H program, I have decided to pursue a degree in agribusiness and be a part of the future of agriculture.

Now, a delegate from Maine will speak.

PREPARED STATEMENT OF SHAYNEN SCHOFIELD, KNOX, ME

Hello my name is Shaynen Schofield I am from Waldo County, Maine. I do not personally live on a farm but agriculture is a huge part of my life. I have been in 4-H for 10 years and in this time I have shown sheep, goats, pigs, and I currently show dairy cows. My school is divided into two groups—kids with an agricultural background and the kids with little to no agricultural background. I personally have an agricultural background. I spend most my summer showing cows at fairs and at my uncles farm taking care of the animals. A lot of the kids at my school with little to no agricultural background don't understand the amount of effort that is put into taking care of the animals. Waking up early to get chores done before breakfast and we start chores around 3 so we can get done at a decent hour. I believe if we had a special day for agriculture awareness were people could go to a farm near them and see where their food comes from and so they could see the amount of effort put into raising and taking care of the animals. I think that this could help make farmers and ranchers more respected in the way that their life is the farm they have little time for anything else.

Now, a delegate from Colorado will speak.

PREPARED STATEMENT OF JENNIFER GOLBUFF, FORT COLLINS, CO

Hello, my name is Jenni Golbuff. I am 17 years old and a 4-H delegate from the State of Colorado. I have been a 4-H member for 12 years. I am a supporter of the biotech crops, because, using these crops can help to protect our resources. These

modified crops actually use less fuel, help water efficiency, reduced spray uses, and give farmers better harvests.

When I was a little girl, a large tornado ripped through my little farm town in Minnesota. A lot of buildings were destroyed, but what was worse, was the harvest that fall. My little town mainly harvested soybeans and corn, and most of our harvests were destroyed in the May Day Tornado. When I found out about Biotech crops, I was amazed. Just imagine, a trait added to corn so that it can have stronger stalks they will not be as easily destroyed in tornados or storms.

Better harvests and less resources used to help feed the future generations? That's what we need to be thinking about, not just for the present farmers, but for the future farmers and future generations, like my fellow delegates and myself, who are the next generation.

Now, a delegate from Texas will speak.

PREPARED STATEMENT OF MERAH WINTERS, BELTON, TX

Hello, my name is Merah Winters. Located in central Texas, I live in a large urban and rural community. My 4-H involvement spans 9 years so far.

Within that urban setting, it amazes me the lack of awareness many citizens in the community have. When asked, "Where does your food come from?" many consumers will respond, "The grocery store." Or "I don't know." 4-H is a program that has allowed me to help reverse this loss of knowledge and teach some essential skills learned through agriculture.

Agriculture has immensely benefited from great technological advancements, however these advancements are slowly becoming dysfunctional and damaging. Within the production of livestock many popular technologies such as Artificial Insemination, *In-vitro*, and flushing help the producer turn out healthier and larger yields of their product. Now don't get me wrong these technologies do have their perks, but their cons have a much larger impact on the future of agriculture. When producers take these advances to the extreme scary things happen. The loss of diversity in the genetic pools when producers breed for certain traits leads to loss of immunities, genetic mutations, and congenital defects.

My best example of genetic diversity lives in my barn. I have a 10 year old, 300 pound, mutt of a goat. Hash Brown was my very first 4-H project. From bottle baby to a vertical 8' tall goat, this genetic mash up has never gone down due to illness. His only medication is the monthly worming and an occasional booster shot. His diversity in breeding has aided him in being an extremely healthy livestock example.

Thank you for your time and this opportunity to be the youth voice of agriculture, and we'll see you at the barn. We will now open the floor for questions.

The Future of Agriculture
National 4-H Conference 2015
Committee on Agriculture
Subcommittee on Biotechnology, Horticulture, and Research

April 14, 2015

The block contains three logos: the USDA logo on the left, the 4-H logo in the center, and the NIFA logo on the right.

Harley Rogers, Hamilton, TX



Alexandra Swan, Newark, DE



Gabriella Germann, Ceres, CA



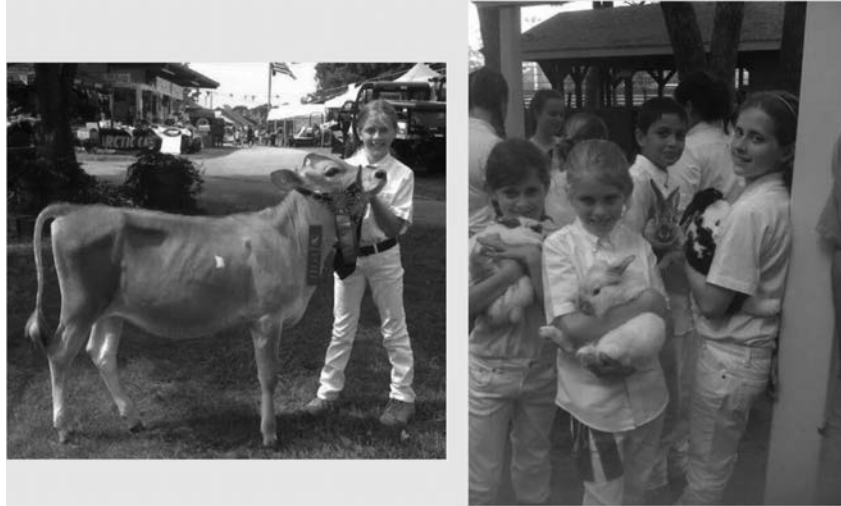
Jillian Parrent, Normal, IL



Shelby Nierman, Brownstown, IN



Kailey Foster, South Kingston, RI



Danielle Brazeau, Storrs, CT



Colton Searcy, Porterville, CA



Hannah Hasbargen, Wheaton, MN

	U.S.	Africa
Percentage of people who farm	~1%	~65%
Cost of food as percent of disposable income	~9%	~70%
Agriculture trade	Export \$140B	Import \$35B
Corn yields bushel/acre	~180	~20



Brook Weibel, Burns, WY



Wade Hofmeister, Brush, CO



Garrett Tomera, Spring Creek, NV



Tyler Bassett, St. Charles, ID



Darby Schmidt, Defiance, MO



Shaynen Schofield, Knox, ME



Jennifer Golbuff, Fort Collins, CO



Merah Winters, Belton, TX



Questions

The CHAIRMAN. Well, thank you to all the participants. Shaynen, can you come up here? I have to give you something. I talked to your Member of Congress on the floor, and he wanted me to give you his card, a new Member, Mr. Bruce Poliquin. Here, come on right up here this way. And Colton, Kevin McCarthy said hello. All right. I don't think it is lost on the Committee that the presentation started with a Texan and ended with a Texan, too. Only in the House Agriculture Committee.

First off, before we get to the questions, I would like to thank some of the folks that are with you today, Dr. Lisa Lauxman, the Director of the Division of Youth and 4-H at USDA right here in Washington, D.C. Thank you, Dr. Lauxman. Shelby Maresca, National 4-H Conference Roundtable Facilitator at, of all places, Texas Tech University in Lubbock, Texas. I also want to say thank you to a few of the chaperones, Theresa Bishop, from Missouri, Craven Hudson from Georgia, Tamara McCoy from Texas, Brian See from Arkansas, and Cassie Turner from Ohio. So thank you all very, very much.

I would like to begin the questioning. I can always ask my questions later, so I will defer to the other Members. Chairman Conaway, you are first on the list.

Mr. CONAWAY. Thank you, Mr. Chairman, and thank you for each of you being here today. In my opening remarks I mentioned this idea about trying to create an urban/rural coalition to help us pass the next farm bill, and little did I realize what terrific spokesmen were already in the works for helping to make that happen.

So the problem we have is that we have to tell our story over, and over, and over, and after you have done it a zillion times, and you are about to throw up about it, you have to tell it four or five more times. When you finally break through to the folks who really need to make this happen, because our folks in urban America, as I mentioned earlier, benefit from the low prices that they pay, and it is in their self-interest that we have a strong production in agriculture. So thank you for being those great spokesmen.

I am going to pick on the Texans. Merah, you seem very poised and polished as a speaker. Can you talk to us a little bit about your 4-H experience, and were you already this poised and polished a speaker before you came?

Ms. WINTERS. I actually have been able to collect a very polished skill set with speaking in my last couple of years of high school. As a young 4-H'er, I was very shy, and always curious about it, but I never wanted to approach anyone and try and learn about it. So my speaking has really grown its skills as I have grown in confidence, I really love educating people about my species of goat, and about the things that I am passionate about, and with that poise and polish, I guess I can always thank my grandmother for that.

Mr. CONAWAY. Nothing like good genetics, right?

Harley, can you talk to us a little about your plans to major in agricultural economics in college. Can you talk to us about how your experience owning and bargaining cattle has given you some grassroots experience that you will use when you go to college?

Ms. ROGERS. Okay. Skills that I have learned with owning my business, and having all the cattle I have, I have learned that making connections is very useful. Everywhere you go you need to

make a great first impression because you never know who you are meeting, and traveling around, promoting the beef industry, going to shows, going all over the nation, has taught me that I need to make a great first impression.

Because whenever I go to college, whenever I am going I want to major in agriculture business, I need to make an impression, because who knows, in the future, when I own my own business, I don't know, maybe I met one of those kids when I was in college, so making a first impression is something I have learned is very useful.

Mr. CONAWAY. All right. I can't remember which one of you had the fluffy rabbits. All right. What was the ultimate goal of the fluffy rabbits? Did you sell them into the meat market, or did you sell them for pets?

Ms. FOSTER. We sell our rabbits for pets.

Mr. CONAWAY. Okay. I was just wondering. Your mom, did she realize when you do sell them for meat, that that has a different outcome?

Ms. FOSTER. Yes.

Mr. CONAWAY. Okay. All right. Well, again, thank you for what you do. I look forward to the future of production of agriculture. It appears to be in great hands. You are wonderful examples, and ambassadors for that effort, and keep up the good work, and I look forward to your future leadership in this industry. And with that, Mr. Chairman, I yield back. Thank you.

The CHAIRMAN. Thank you, Chairman Conaway. The chair now recognizes the Representative from Florida, Ms. Graham, for 5 minutes.

Ms. GRAHAM. Thank you. I am sorry I came in a little bit late, but it is just so wonderful—thank you, Mr. Chairman. It is so wonderful to see so many terrific young people representing the agriculture industry. And I thank each of you for being here today. And, not to go back to the fluffy rabbits, but are they Angora rabbits?

Ms. FOSTER. We—

Ms. GRAHAM. I guess we are going back to the fluffy rabbits, but—

Ms. FOSTER. We have varieties of different rabbits. We have lion heads and English flop.

Ms. GRAHAM. And where are you from? I am sorry, I don't know—

Ms. FOSTER. I am from Rhode Island.

Ms. GRAHAM. Okay. I am interested in getting a rabbit, so maybe we can talk afterwards. My family was in the dairy business, dairy cattle business, and now we are in the beef cattle business, and pecans, and timber. I am interested in agriculture. This is for anyone who wishes to answer, what is most rewarding for you, being involved in agriculture?

Ms. SWAN. Being involved in agriculture, it is very rewarding to see that you raised a lamb, any type of livestock you have, whatever you have, it is so rewarding to see that you raised that small little livestock, whatever breed it might be, to see what it has become, and see what your flock, or whatever you have has increased so immensely, and is so much better than when you first started

out with that little market lamb, or little heifer, or whatever you—

Ms. GRAHAM. Yes. That is great. Does anyone else want to answer? Yes?

Ms. SCHMIDT. I believe that the most rewarding part of being a part of the agriculture industry is the people, and how everyone is working together for a common goal of feeding the world, and that everyone really cares about the industry, and is doing the job because they love it.

Ms. GRAHAM. That is great. Again, thank you all for being here. I know our future is in just terrific hands. I don't know how much more time you have here in Washington, but I hope you all enjoy your time very much. Thank you again. Mr. Chairman, I yield back my time.

The CHAIRMAN. The gentlelady from Florida yields back the balance of her time. The gentleman from Michigan, Mr. Moolenaar, is recognized for 5 minutes.

Mr. MOOLENAAR. Thank you, Mr. Chairman. And, again, I want to thank all of you for testifying today, and sharing your stories with us. There were a few questions I had for you. If someone could help me understand the similarities and differences between 4-H and FFA, because I have FFA and 4-H throughout, and kids are involved in learning great things, and no one is really ever explained to me the similarities and differences.

Ms. GOLBUFF. All right. Well, I am a 4-H member for about 13 years now, and my family has also been involved in FFA. I tried to get in it since I was in 6th grade, but that didn't work, obviously, well, the differences are—well, I will start with similarities, actually. Everyone is so amazing. There are a ton of leadership opportunities, like coming to Washington, D.C. like this, there are differences, though. Like, we both show animals, but we don't show necessarily the same type of way. And there are also, like—4-H you get to do more projects, so there is a lot of different opportunities and skill-sets that go with FFA and 4-H, so—

Mr. MOOLENAAR. Does one occur more in the school system, and one is more extracurricular?

Ms. GOLBUFF. Be my guest, guys.

Ms. ROGERS. So 4-H is an out of school thing. FFA is in school, and it is divided into two sections, SAEs and CDEs, and that is not how 4-H is. 4-H is a broad spectrum, and it is all out of school.

There are a lot more opportunities in 4-H, because there is a much more wider range of opportunities that you have. You can do all kinds of things in 4-H, like shooting sports, showing livestock. But you do that in FFA too, but it is really combined into two things, CDEs and SAEs, and they are in different seasons, and that is not—okay, hold on. It is—

Mr. MOOLENAAR. Do you get school credit for either one?

Ms. ROGERS. No. FFA is extracurricular, and 4-H is strictly out of school. You can be home schooled and do FFA—or 4-H.

Mr. MOOLENAAR. Well, thank you. The other thing I wanted to ask: many of you mentioned there is a disconnect between people who are involved in agriculture and growing our food, and then people who may not have that same understanding. If there were maybe two or three misconceptions that you have sort of identified

that we should all be working on clarifying and helping people understand better, based on your experience, what would some of those things be?

Ms. NIERMAN. I think that the biggest misconception is that people do not know where their food is coming from, and that something needs to be done through education to teach consumers where their food is coming from.

Ms. GERMANN. Another misconception that I have noticed is the animal rights and the cruelty issue. We were watching, a couple days ago, in our roundtable a commercial from Chipotle which had a scarecrow who was a farmer going around his town, and he saw the different types of animals, and the behind the scenes of what farmers really do, that he thought. And so it showed chickens being plumped up, cows being shut into dark corners and hooked up to machines.

People really need to understand that there is no reason why farmers would be cruel to their animals. Granted, there is that small percentage that are, and that is where those videos and that information comes from, but that is really only a small percentage. The rest of farmers—and if you think of it from an economic sense, a farmer wouldn't make money if his animal isn't treated right, if his animal isn't the most comfortable it is. And I know, since I grew up on a dairy, my father is always working to make sure that the animals' pens are clean, and that they are the most comfortable they can be so that we, in an economic way, can get the most yield that we can.

People really need to see that farmers are not evil. We are not trying to get them, to hoodwink them or trick them, and we are not trying to beat our animals.

Ms. WINTERS. If I could add on, one of the larger misconceptions about agriculture that people don't understand is that agriculture is not just animals. Agriculture is not just farming. Agriculture controls our clothing industries. Agriculture controls the majority of our food, controls the land, controls the animals. Agriculture is spread throughout our nation and everything. It is not just about the animals, and production of livestock. I think that if consumers really did grasp that, that they would be more involved in really educating everyone, and getting agriculture back to the numbers that it should be.

The CHAIRMAN. The gentleman's time has expired. The gentleman from Massachusetts, Mr. McGovern, is recognized for 5 minutes.

Mr. MCGOVERN. Thank you, Mr. Chairman. I want to thank you for holding this hearing today. This is an incredibly impressive panel. Everyone who spoke is unbelievably eloquent and passionate, and I really appreciate your strong feelings about farming, and about agriculture. I was visiting a farm in Massachusetts, and a reporter asked the farmer, what is the difference between being a farmer and being a Congressman? And he said, "Well, being a Congressman, sometimes you work all day, and accomplish nothing. But farmers, every day, you produce something."

That is what I have come to appreciate; your hard work. We get vacations, and can go away, and not have to worry about anything for a few days at a time. If you are a farmer, every single day you

have to worry about your crops, or your cattle, or whatever it is. Every day you have to make sure everything is just taken care of.

I appreciate the fact that there are people here from Connecticut, Rhode Island, and Maine, because sometimes people don't realize that some really important agriculture goes on in the Northeast. So I will ask Danielle since no one from Massachusetts is here. Maybe you locked them in the hotel room? Danielle is from Connecticut, which is close enough. Why do you think agriculture education is important, and how do you think fairs help educate others about agriculture?

Ms. BRAZEAU. I think that agriculture education is very important, so that people do not have these misconceptions that we have previously talked about, and it is also important to educate the youth, because they are our next generation of agriculturists, along with consumers. And if they are educated from a young age, that would prevent having the misconceptions of them when they are older, and more in the consumer market.

Also, fairs are very important because it is a great way for people to enjoy learning about agriculture, and seeing what us farmers do, and all the hard work that goes into our projects, as well as the final product.

Mr. MCGOVERN. I appreciate it.

Shaynen, let me ask you, from Maine, can you tell us about your involvement in 4-H, and how it has shaped you? And also, how can you advocate for agriculture through showing dairy cattle?

Mr. SCHOFIELD. Well, I think that 4-H has shaped me in a way that, without 4-H, I don't think I would be as responsible as I am. It has taught me how to treat people better, how to be a better person in the community, how to help my community in any way that I can, and to just treat everyone better.

I think that I can be a good advocate of agriculture with showing animals in a way when you come to a state fair in Maine, a lot of the people like to come to the fair to see our animals, and just see how we treat our animals, because we make it a little more fun than just the rides, and the food, and the midway. I think that bringing the animals to the fair, it can help younger people and older people learn more about the animals, and where their food comes from.

Mr. MCGOVERN. I appreciate all of you being here today. You are educating not only us, but you are educating some of your peers, fellow students, about the importance of agriculture. You could live without a lot of things, but you can't live without food, and we can't get food without agriculture and farmers. I appreciate very much you being here, and I wish you all the very best of luck. Thank you. I yield back.

The CHAIRMAN. The gentleman yields back. The chair now recognizes the gentleman from Minnesota, Mr. Peterson. But before I do, I will let you know one of your constituents, on the far end on the left, Hannah, is here today. She did an excellent job representing your district.

**OPENING STATEMENT OF HON. COLLIN C. PETERSON, A
REPRESENTATIVE IN CONGRESS FROM MINNESOTA**

Mr. PETERSON. I had a chance to meet with her a little bit before the hearing kicked off, and it is fair to say that she is a tremendous representative of 4-H. For those who don't know, I am a 4-H kid. I remember going to 4-H when I was, I don't know, 7, 8 years old. They made me get up and talk in front of the group, and I about had a heart attack and passed out, because I was so scared.

4-H had a lot to do with me developing into what I have done later in life. I am reading Hannah's biography here, she received Grand Champion at the state fair in her beef project. I only received Reserve Champion. I very much appreciate 4-H, those of us that represent rural America, and what it does for the youth of this country, but also what the youth of this country does for us.

I have a couple questions for Hannah. I went to college, and had a dual major in accounting and business. Apparently you have decided to do a double major in accounting and international agriculture marketing. So how did your background in agriculture help you decide to do this?

Ms. HASBARGEN. I can remember being 2 and 3, and my dad taking me out in the tractor with him all day long, and it was just something that I grew up absolutely loving, and 4-H gave me the opportunity to expand on this, and kind of broaden my horizons, and see a little bit more of the industry, especially being out here on this trip. It is just been absolutely fantastic to see all the different views of agriculture from different states. I totally was not aware of the agriculture in Maine, and how it differed from Minnesota.

And so I really think that my background, and wanting to be part of the family industry, and keep agriculture going, has really propelled me to go into the international ag marketing. And I want to stay more on the business side of it, and keep my fellow classmates, who are going into agriculture, and plan on staying in the area, I want to help them keep their businesses very profitable, and able to pass on to the next generation.

Mr. PETERSON. Thank you. And Chairman Conaway is here, and he and I are both CPAs. The first time, in history that the Committee has been led by two CPAs. Am I right about that, Mike?

Mr. CONAWAY. I can't imagine it has ever happened before. So few of us make it all this way.

Mr. PETERSON. So you better watch out. You get your CPA, and you never know what might happen? So what are you most passionate about in agriculture, and how do you convey this to others?

Ms. HASBARGEN. I would say I am most passionate about the marketing and finance side of it. I went to a marketing seminar by Dr. David Cole from Virginia Tech the other week. It was absolutely fascinating. I was enthralled through his entire speech. I realized that this is something that I really, really want to pursue. I want to be able to help my father, and our farm to become more profitable. I want to help my neighbors, and my classmates, and everyone to just really understand where we can go with agriculture. It is so much more than just planting.

It is just as sophisticated as so many other industries. That is forgotten a lot of the time. How I convey this is by being interested,

and asking questions, and attending seminars. I am not really at the teaching stage, but I hope after college I will be.

Mr. PETERSON. Well, thank you. And thank you very much for your passionate interest in agriculture, and all of you for being here, and sharing your time, and your stories with us, and other Members of Congress.

Hannah comes from a fairly large county that has a small population. It is one of the premier agriculture production areas in Minnesota. And I had a chance last fall to go to the Travers County Fair, which is where she is from. I do this in quite a few counties. I had some opportunities to buy a couple animals at the 4-H auction, and help do what I can to support 4-H, locally, and throughout the district.

So thank all of you for being here, what you do, and I yield back.

The CHAIRMAN. The Ranking Member, Mr. Peterson, yields back the balance of his time. We have gone through the first round of questions. I will take my opportunity now, as Chairman, to follow up myself with a few of my own.

First off, give me a show of hands, who of you wants to be a Member of Congress someday? Of course, the one that could run against me. I am in trouble. You should have seen her give her presentation earlier. As for my colleagues who weren't here yet, Jill Parrent is my constituent, from Normal, Illinois. And yes, I am not a CPA, but I represent Normal. Jill, what year are you at Normal West?

Ms. PARRENT. I am a junior.

The CHAIRMAN. A junior at Normal West Community High School, a high school I visited not too long ago, and obviously doing a great job with 4-H. And, Jill, while I have you there, I am going to pick on you a little bit, get you ready for being a Member of Congress someday. And I hope you do.

And before we move on, I do want to tell each and every one of you, all of us were no different than you when we were your age. I probably wouldn't have raised my hand if I was asked to be a Member of Congress, but the confidence that all of you have demonstrated today, sitting in front of us, is something you can put on your résumé, as someone who testified in front of a Congressional Subcommittee. Now, with the popularity rating of Congress, you may not want to, but it is a privilege for you to be able to be here, and it is a privilege for us to be able to hear from you.

So, remember, no matter what you decide to do in life, whether it is to stay within the ag industry, whether it is to grow—make sure you have a few more Hash Browns in your stables—but just continue to take the lessons that you learned in 4-H, and be a leader. Continue to grow in what your interest is, and who knows, one day hopefully you will tap one of us on the shoulder on the floor of the House and say, hey, you may not remember me, but I was at your Subcommittee hearing a few years ago. That would be the biggest privilege, all of us, as current Members of Congress, could and should have.

So now I get to pick on you, Jill. I want to make sure I ask you a couple questions. And I know, within your 4-H career, you have focused food, nutrition, and health. Can you tell us why?

Ms. PARRENT. I have always loved to bake and to cook. My grandma has always taught me. But especially 3 years ago is when it truly got started. My 90 year old grandma taught me to bake yeast breads, and so, throughout that process, a 90 year old being able to teach me makes me—it is one of the coolest things ever, because I know where my bread came from, and it is actually better than the store bought, I do have to say, not to brag.

But I just really enjoy being able to bake, and to do all of that sort of thing. I like to know where my food comes from. So, again, going back to the agricultural perspective, I know that my yeast that I use in my yeast breads is coming from just even our farm, or our ranch in general. But I really enjoy the nutrition side of it as well, because I really have a desire for the community, and even the nation, to be healthy.

So I truly enjoy being able to combine those speech, ag, and nutrition type of things together to even going into food, nutrition, and health.

The CHAIRMAN. Well, thank you. The next time I am in Normal, maybe I can taste-test that. Now, make sure to let everybody know. Thank you.

I love that 4-H's themes: one of them is 4-H grows confidence. From your experience, Jill, how did 4-H contribute to your confidence, and your leadership skills?

Ms. PARRENT. Well, I have always been one of those kind of outgoing type of kids that always jumps right into it, ever since I was really young. But 4-H has truly taught me about how to go and get it. So, for example, I had the desire to be on our youth leadership team for the state, and so I have worked hard since I was 8 years old, doing projects, doing all of my records for our states. And whenever I was finally old enough to apply to be on our state youth leadership team, I jumped on it. It was truly one of the things that I have always wanted to do, and now I have the opportunity to serve our state as well through 4-H.

But 4-H has really taught me a lot of skills, from confidence, to public speaking, to even just baking, electricity, woodworking in general. It is one of those programs that nothing else can compare, and I wouldn't ever want to switch any of my experiences, or go to any other program.

The CHAIRMAN. Excellent, thank you. I know, I know. And one last question for you. Because we live in central Illinois, what lessons can you take back from your 4-H Conference here in Washington, D.C., back to our home in central Illinois?

Ms. PARRENT. Well, something I know I can take back is that, working with this diverse group of kids from all across the entire nation, I can go back and say, this is what it is like. This is how they live their lives, and this is how we can compare, and even make our lives better.

So, for example, we were talking about grocery stores on the way here, what we have *versus* what they don't have, and I just thought that was the coolest thing ever. And so just being able to go back and say, "This is what they have *versus* what we don't have," or even just different foods that they eat that we don't eat, going back and taking that to our community.

But also, specifically in our 4-H Program, we specifically have a Speaking for Illinois 4-H Program, whereas other people have conferences for 4-H for their high schoolers. So I would love to be able to implement that back in Normal, to take and retain that number of older 4-H'ers.

The CHAIRMAN. Well, thank you, Jill, and I want to thank everybody again. Does anybody have any more questions, this is the end of the hearing. Does anybody have any comments you would like to make that you would like to say on any subject? Seeing none—we have one?

Ms. WINTERS. I just would love to say that it was a privilege getting to do this, and having the opportunity, especially just hearing all the open-minded ideas that were expressed within this roundtable, and all the people that I got to meet and talk to, and understand the industry in different states. It just was such a privilege, and it was really amazing, and eye-opening. And these are lifelong friends that I will never be able to forget, and this is an opportunity that I probably will never get again. So I just wanted to say thank you, and that this was amazing.

The CHAIRMAN. Well, thank you, and never say never. You could get another opportunity to sit on that side, or, as I said earlier, and all of us who are here today truly believe that there is no reason why all of you couldn't be Representatives. Or, if you really wanted to go to the House of Lords, I mean, if you want to take a demotion, you could be Senators too.

But be confident, and go back to your communities, and talk about what you learned here. Talk about the process, about what Washington is like, and what you were able to do. Go back and continue to be leaders. We started this hearing by talking about how we need an urban/rural coalition to continue to have good, cost effective farm policy in this country. And we need you to go back to your communities and remind them all that we need both sides of the aisle, coast to coast, urban and rural to make sure that we continue to move projects forward.

Now, as a closing statement, I just want to say thank you again. As somebody who grew up in a very small town, who had agriculture all around them, I had no idea what the difference was between a planter and a combine until I got into public policy. Now we are tasked with sitting in this House Agriculture Committee, coming up with farm policy. And it is exactly what many of you, in your comments, said about your experience in agriculture. You truly are the future of agriculture, and the future of ag leadership, and run with that. Help us to help you, and to help your industry.

With that, I would like to add that, under the rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplementary written responses from the witnesses to any questions posed by a Member. This Subcommittee on Biotechnology, Horticulture, and Research hearing is now adjourned.

[Whereupon, at 2:51 p.m., the Subcommittee was adjourned.]