



United States Department of Agriculture

USDA's
92nd
Annual

Agricultural Outlook Forum

TRANSFORMING AGRICULTURE

BLENDING TECHNOLOGY AND TRADITION



February 25-26, 2016
Crystal Gateway Marriot Hotel
Arlington, Virginia

www.usda.gov/oce/forum

Welcome to the 2016 Agricultural Outlook Forum

The challenges and opportunities for agriculture are changing. In 2015, American farmers persevered in the face of drought and an unprecedented animal disease outbreak. Demographics have been and continue changing in rural America and across farm households. Technology is rapidly opening new applications for producers and throughout the marketing chain, and new markets are emerging for U.S. agricultural products. USDA continues to seek out novel and innovative ways to expand opportunity and provide support for America's farming families, and that mission forms the basis for the 92nd Agricultural Outlook Forum.

“Transforming Agriculture: Blending Technology and Tradition”



Seth Meyer
Program Chair

This year, USDA's annual Agricultural Outlook Forum Plenary features remarks from Agriculture Secretary Tom Vilsack and Agriculture Deputy Secretary Krysta Harden. USDA Chief Economist Robert Johansson will present “The 2016 Economic Outlook for Agriculture.” Delivering the keynote address is Howard Buffett, CEO of the Howard G. Buffett Foundation. Mitchell E. Daniels, Jr., Purdue University President and former Governor of Indiana, is the dinner speaker. “Providing Leadership for Present and Future Generations in the Transformation of Agriculture” is the focus of the Plenary Panel. This year's panelists each bring an essential element of expertise with their proficiencies in academia, business, farming and media in transforming the future of agriculture. The group includes Elizabeth Garrett, President of Cornell University; Ilene Gordon, CEO

of Ingredion; Pamela Hess, Executive Director of the Arcadia Center for Sustainable Food and Agriculture; and Pam Johnson, an Iowa farmer and former President of National Corn Growers Association. Collectively, their proficiencies in academia, business, farming and media are essential components in the transformation process. Thirty concurrent track sessions support the Forum theme “Transforming Agriculture: Blending Technology and Tradition,” including the Agriculture Talent Pipeline, Bioproducts, Commodity Outlooks, Land & Tenure Transition, New Markets, Organics, Risk Management, Scientific Advancement, and Trade, to Urban Agriculture.

USDA Agricultural Outlook Forum Student Diversity Program

USDA's Agricultural Outlook Forum Student Diversity Program launched in 2007 targets students from Land-Grant Colleges and Universities, Hispanic-Serving Institutions, and American Association of State Colleges of Agriculture and Renewable Resources Institutions throughout the country. Students chosen to attend the Forum have earned this opportunity through a stiff competitive essay process. Thanks goes out to the University of Maryland Eastern Shore, CHS Inc., Farm Credit, and USDA's Economic Research Service, Agricultural Research Service, and Natural Resources Conservation Service. They have supported the Forum's Student Diversity Program since its inception 9 years ago.

Former program winners have said the Forum “opened their eyes” to a larger world and better prepared them for more advanced achievements in agriculture. USDA proudly acknowledges the sizeable number of Student Diversity Program participants who are now full-time employees of the Department.

For Forum coverage, follow @USDA and #AgOutlook



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Roundtable Discussion: Transforming Agriculture



Tom Vilsack
Secretary of
Agriculture

Keynote
Address



Howard G. Buffett
CEO, Howard G.
Buffett Foundation

Distinguished
Guest Speaker



Krysta Harden
Deputy Secretary
of Agriculture

Welcome



Robert Johansson
USDA Chief
Economist

Economic
Outlook

Plenary Panel: Providing Leadership for Present and Future Generations in the Transformation of Agriculture



Elizabeth Garrett
President
Cornell University



Ilene Gordon
CEO
Ingredion



Pamela Hess
Executive Director
Arcadia Center for
Sustainable Food
and Agriculture



Pam Johnson
Farmer and Former
President, National Corn
Growers Association



Mitchell E. Daniels, Jr.
President
Purdue University
Former Indiana Governor

Dinner
Speaker

USDA is an equal opportunity provider, employer, and lender.

You Are Invited To Attend:

Thursday, February 25th

Morning Coffee	Grand Ballroom Foyer <i>9:45 a.m.</i>
Networking Luncheon	Salons A, B, C, D, E & Sky View <i>12:30 p.m.</i>
Women's Networking Event	Sky View <i>3:30 p.m.</i>
Reception	Exhibit Hall Salons F, G & H <i>5:30 p.m.</i>
Forum Dinner	Salons III & IV <i>6:30 p.m.</i>

Friday, February 26th

Luncheons <ul style="list-style-type: none">• Cotton & Fibers• Sugar & Sweeteners• Specialty Crops• Grains & Oilseeds• Livestock & Poultry	12:15 – 1:30 p.m. Salons J & K Salons C, D & E Salons A & B Salons III & IV Salons V & VI
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On the USDA 2016 Agricultural Outlook Forum Web Site: www.usda.gov/oce/forum

- **Speaker Biographies and Attendee List:** Posted online
- **Plenary Session Webcast:** Posted after 6 p.m. Thursday, February 25th
- **Commodity Outlooks:** Posted at 7 a.m. Friday, February 26th
- **Speaker Presentations:** Posted after 6 p.m. Friday, February 26th



Transforming Agriculture

Thursday, February 25

7:00 a.m.	Registration (Wednesday Evening Early Onsite Registration 5-7 p.m.)				
8:00 a.m.	Welcome				
8:10 a.m.	2016 Agricultural Economic & Foreign Trade Outlook				
8:45 a.m.	Roundtable Discussion on Transforming Agriculture				
9:25 a.m.	Question & Answer Period				
9:45 a.m.	Break & Exhibit Hall Opens				
10:15 a.m.	Plenary Panel				
12:30 p.m.	Networking Luncheon Salons A, B, C, D & E				
Concurrent Sessions					
1:45 p.m.	Food Price & Farm Income Outlooks	International Trade	Opportunities in Agriculture	Conservation	Transforming the Rural Economy
	Food Price Outlook Salon IV	China: Impacts of Slowing Growth on Trade & Agriculture Salon III	New Players, New Markets Salons J & K	Today's Droughts and Tomorrow's Water Sources Salons I & II	The Outlook for Organic Agriculture Salons V & VI
3:15 p.m.	Break				
3:30 p.m.	--- Women's Networking Event --- Sky View ---				
3:45 p.m.	Farm Income Outlook Salon IV	U.S. Exports In The Warm Glow of a Completed Trans-Pacific Partnership Salon III	Ag Talent Pipeline Salons J & K	Ecosystem Services and Environmental Markets Salons I & II	Big Data: Transforming Agriculture Salons V & VI
5:30 p.m.	Cash Bar Reception				
6:30 p.m.	Forum Dinner Speaker Salons III & IV				

Friday, February 26

7:00 a.m.	Registration				
7:30 a.m.	Exhibit Hall Opens Salons E & F				
	Concurrent Sessions				
8:00 a.m.	Food Security	Climate Change & Variability	Commodity Outlooks	Commodity Outlooks	Transforming the Rural Economy
	Regionalization of Pest & Disease Outbreaks Salons A & B	Building Blocks for Smart Agriculture Salons V & VI	Grains & Oilseeds Outlook Salons III & IV	Sugar Outlook Salons J & K	Land Tenure & Transition Salons I & II
9:30 a.m.	Break				
10:00 a.m.	Collaboration with Stakeholders Improves Disease Outbreak Response Salons A & B	Agricultural Production in Brazil: Adapting to a Resilient Climate Salons V & VI	Livestock & Poultry Outlook Salons III & IV	Cotton Outlook Salons J & K	The Future of Ag Credit and Insurance Salons I & II
Visit Exhibit Hall					
12:15 p.m.	Luncheons				
	Cotton & Fibers Salons J & K	Sugar & Sweeteners Salons C, D & E	Specialty Crops Salons A & B	Grains & Oilseeds Salons III & IV	Livestock & Poultry Salons V & VI
1:30 p.m.	Break				
Concurrent Sessions					
2:00 p.m.	Food Security	Technology	Commodity Outlooks	Bio-based Economy	Urban Agriculture
	Food Access, Food Security & Diet Quality Salons J & K	Applying USDA Technological Achievements to Global Challenges Salons A & B	Dairy Outlook Salon III	Bio-Products: Generating Economic Transformation Salons V & VI	Commercial Production in Urban Settings Salons I & II
3:30 p.m.	Adjourn				

Transforming Agriculture



Thursday, February 25, 2016

BREAKOUT SESSIONS

1:45pm – 3:15pm

TRACK: FOOD PRICE & FARM INCOME OUTLOOKS

Food Price Outlook

Salons V & VI

This session will provide the latest perspective on food price inflation, the main factors that contribute to changes in food prices, and the consumer implications of rising food prices.

Moderator: Ephraim Leibtag, Deputy Director, Research & Product Coordinator, Economic Research Service, USDA, Washington, DC

Outlook for U.S. Food Prices and Inflation in 2016

A presentation of the latest ERS outlook for retail food prices in general and across major food categories.

Annemarie Kuhns, Economist, Economic Research Service, USDA, Washington, DC

Environmental Factors and the Retail Food Industry

This presentation focuses on how the retail food industry deals with environmental changes and the strategies employed to reduce price impacts.

Brian Todd, President, The Food Institute, Upper Saddle River, New Jersey

Economic Outlook for the Foodservice Industry

This presentation will allow for the perspective of how food price inflation impacts the foodservice industry.

Bill Lapp, President, Advanced Economic Solutions, Omaha, Nebraska

TRACK: INTERNATIONAL TRADE

China: Impacts of Slowing Growth on Trade and Agriculture

Salon III

China's economy has become the second largest in the world, and any slowing of growth or downturn has significant ramifications for countries around the world that depend on China's economy. This session will focus on how China's slowing Gross Domestic Product growth is impacting imports, especially from the United States.

Moderator: Phil Karsting, Administrator, Foreign Agricultural Service, USDA, Washington, DC

China's Economy in 2016 and Beyond

Speaker will give a broad overview of China's slowing economic growth, the factors causing it, and what effects it is having on the country.

Nicholas R. Lardy, Anthony M. Solomon Senior Fellow, Peterson Institute for International Economics, Washington, DC

China's Demand for Agricultural Imports

Speaker will discuss what will likely happen to the demand for agricultural imports in 2016 and beyond.

Fred Gale, Senior Economist, Economic Research Service, USDA, Washington, DC

China's Demand for Feedstuffs and U.S. Export Prospects

This speaker will discuss China's changing government policy for grains and the future feed demand for corn, soybeans, distiller's dried grains, sorghum, and barley.

Bryan Lohmar, Director, U.S. Grains Council, Beijing, China

TRACK: OPPORTUNITIES IN AGRICULTURE

New Players, New Markets

Salons J & K

Agriculture in America is changing, and the change is not limited to new farming methods. U.S. agriculture is also being transformed by an increasing number of producers from nontraditional backgrounds, many of whom are producing nontraditional crops or using new methods of marketing their products. This session highlights some of these transformations.

TRACK: CONSERVATION

Today's Droughts and Tomorrow's Water Sources

Salons I & II

Session speakers will discuss the supply, sources, drought impacts, and management of water for agriculture and communities.

Moderator: Noel Gollehon, Senior Economist, Natural Resources Conservation Service, USDA, Washington, DC



Managing Headwaters in the High Country

Role of national forest system lands in providing surface water for use across the country and potential changes in management approaches due to drought will be discussed.

Peter Caldwell, Research Hydrologist, Center for Forest Watershed Research, Coweeta Hydrologic Lab, Southern Research Station, Forest Service, USDA, Otto, North Carolina

Understanding Groundwater as a Source and Drought Supply

Groundwater affects streamflow, aquatic species, and irrigated agriculture. This discussion includes groundwater management and its role in the current California drought.

Doug Parker, Director, California Institute for Water Resources, University of California, Oakland, California

Managing Water for the Future

The discussion will focus on water management in the future. It includes environmental flows, efficient water pricing, and water supply for human and crop use.

Matthew Zaragoza-Watkins, High Meadows Senior Economist, Environmental Defense Fund, Washington, DC

TRACK: TRANSFORMING THE RURAL ECONOMY

The Outlook for Organic Agriculture

Salon IV

As organic agriculture has grown and become a mainstream part of American agriculture, the need for market information and market outlook has also grown. USDA is increasing its support for organic market news and organic market outlook. This session highlights the outlook for organic producers and the challenges of supplying organic consumer markets.

Moderator: *Laura Batcha, Executive Director, Organic Trade Association, Washington, DC*

Outlook for Organic Agriculture

This topic focuses on the current market outlook for the organic agriculture sector.

Catherine Greene, Senior Agricultural Economist, Resource and Rural Economics Division, Economic Research Service, USDA, Washington, DC

Organic Profitability Around the World

The National Academy of Sciences recently published a meta-analysis of the financial performance of organic and conventional agriculture around the world.

John Reganold, Regents Professor of Soil Science & Agroecology, Washington State University, Pullman, Washington

Challenges of the Organic Supply Chain

America's largest food retailers are expanding their organic offerings. This expansion has presented challenges and opportunities to the organic supply chain.

Michael Ferry, President, Horizon Organic, Denver, Colorado

SPECIAL SESSION

3:30pm – 4:00pm

Women's Networking Event

Sky View

Everyone is invited to this informal networking reception. This is an opportunity to discuss a wide range of topics with colleagues, both known and new.

3:45pm – 5:15pm

TRACK: FOOD PRICE & FARM INCOME OUTLOOKS

Farm Income Outlook

Salons V & VI

This session will focus on general measures of the financial well-being of the farm economy, including farm household income. It will rely heavily on information generated by the Economic Research Service, USDA.

Moderator: *Jackson Takach, Economist, Farmer Mac, Washington, DC*

Income Outlook for the U.S. Farm Sector in 2016

A presentation of USDA's most recent estimates and forecasts of U.S. aggregate net farm income and value added.

Kevin Patrick, Economist, Economic Research Service, USDA, Washington, DC

Ryan Kuhns, Economist, Economic Research Service, USDA, Washington, DC

Farm and Farm Household Income Trends and the Rural Economy

A review and outlook for farm income and well-being at the household level, including on- and off-farm income and a discussion of the rural economy.

Daniel Prager, Economist, Economic Research Service, USDA, Washington, DC

Business and Credit Cycles in Agriculture

This presentation examines the role of lending in agricultural productivity in the United States and provides insight on the future financial well-being of the sector.

Todd Kuethe, Clinical Assistant Professor, University of Illinois at Urbana-Champaign, Urbana, Illinois



Thank you Forum speakers for taking the time to share your experiences and expertise on the future of agriculture.

Continued on next page

TRACK: INTERNATIONAL TRADE

U.S. Exports in the Warm Glow of a Completed Trans-Pacific Partnership

Salon III

The focus is on opportunities for U.S. exports in the Asia-Pacific region, which includes some of the world's most robust economies, represents more than 40 percent of global trade, and has a total population of over 805 million. The Trans-Pacific Partnership (TPP) is an opportunity to respond to the Asia-only regional trade agreements negotiated by our competitors.

Moderator: Robert L. Thompson, Professor Emeritus of Agricultural Policy, University of Illinois at Urbana-Champaign and Senior Fellow, Global Agricultural Development & Food Security, Chicago Council on Global Affairs, Champaign, Illinois

Opportunities for U.S. Agricultural Trade

The emphasis is on a broad perspective on opportunities for U.S. exporters.

Jason Hafemeister, Trade Policy Coordinator, Foreign Agricultural Service, USDA, Washington, DC

Regionalism and Implications for World Trade Organization

The implications of regional agreements and the WTO.

Craig A. Thorn, Partner, DTB Associates LLP, Washington, DC

Opportunities for U.S. Exports of Pork

The Trans-Pacific Partnership represents a substantial market for U.S. exports of pork. Speaker will discuss the outlook for exports of U.S. pork exports.

Maria C. Zieba, International Affairs Manager, National Pork Producers Council, Washington, DC



TRACK: OPPORTUNITIES IN AGRICULTURE

Ag Talent Pipeline

Salons J & K

As many agricultural professionals reach retirement age, undergraduate and graduate agriculture enrollments are down. The decline could mean fewer opportunities in the field of agricultural sciences as a viable career option. There may also be an adverse impact on meeting the personnel demands of industry, universities, and government. This session focuses on helping students acquire the skills required for early workplace success.

Moderator: Sonny Ramaswamy, Director, National Institute of Food and Agriculture, USDA, Washington, DC

Steering the Best Talent Towards Colleges of Agriculture

Addressing agriculture's talent gap requires more creative recruiting strategies and programs of study that appeal to students and prepare them for success in a rapidly evolving industry.

Jay Akridge, Dean of Agriculture, Purdue University, West Lafayette, Indiana

Shepherding Millennials To and Through High-Tech Agricultural Careers

Many college graduates enter chemical and biotech firms without knowing the business of agriculture. Instead of picking and following a career ladder, millennials tend to jump from career ladder to career ladder to keep their careers exciting and flexible. To attract qualified twenty-somethings, companies are marketing agriculture as a large and complex industry with lots of niches to fit into.

Tomesah Harrison, Human Resources Lead, Bayer Crop Sciences, Research Triangle Park, North Carolina

Jump Starting Food and Agriculture Sector Interest: K-12

Industry and academia have articulated the need to cultivate agricultural interest early in a student's life. Such an interest can be developed in early grades and reinforced in secondary schools.

Jessica Jones, President, Virginia Association of Agricultural Educators, Blacksburg, Virginia

TRACK: CONSERVATION

Ecosystem Services and Environmental Markets

Salons I & II

Identifying and valuing the benefits people receive from nature and explaining those benefits in the context of ecosystem function and processes is necessary to ensuring that we recognize their value and the cost of losing them. This session discusses: (1) Incorporating Ecosystem Services into Federal Decisionmaking; (2) Payments for Watershed Services; and (3) Water Quality Trading.

Moderator: Ann Mills, Deputy Under Secretary, Natural Resources and Environment, USDA, Washington, DC



Incorporating Ecosystem Services into Federal Decisionmaking

Building a consistent approach to integrating ecosystem services into Federal resource management and planning is appropriate in several commonly occurring decision contexts.

Lydia Olander, Director, Ecosystem Services Program & National Ecosystem Services Partnership, Nicholas Institute for Environmental Policy Solutions, Duke University, Durham, North Carolina

Payments for Watershed Services

The Forest Service, USDA, has successfully launched Payments for Watershed Services projects that create investment opportunities by viewing ecosystem services through a new lens.

Cindi West, Director, Office of Sustainability and Climate Change, Forest Service, USDA, Washington, DC

Water Quality Trading

This discussion will focus on water quality trading which is a market-based approach to achieving water quality goals that links ecosystem service providers and those who benefit from these services.

Ben Grumbles, Secretary of the Environment, Maryland Department of Environment, Baltimore, Maryland

TRACK: TRANSFORMING THE RURAL ECONOMY

Big Data: Transforming Agriculture

Salon IV

Technology pervades agriculture and society offering many ways to accumulate vast quantities of data. But while “Big Data” provides benefits to farmers, it also raises profound questions of its security, privacy, and use. Expanding on a 2015 session, speakers address privacy concerns, the emergence of drones in agriculture, the role of government, and offer an example of the impacts on a producer.

Moderator: *Joyce Hunter, Deputy Chief Information Officer, Policy and Planning, Office of the Chief Information Officer, USDA, Washington, DC*

Drones and Data: An Update on Farmer Data

A review of progress on farmer data ownership issues and new data organizations, and a discussion of new research on drones and their effect on farmers and agriculture.

Mary Kay Thatcher, Senior Director, Congressional Relations, American Farm Bureau Federation, Washington, DC

A New Platform for New Needs

The USDA Agricultural Marketing Service MARS project will serve as a model for flexible and integrable databases, including many sources, dissemination in many forms, and access to other systems.

Joe Gaynor, Chief, Market News Branch, Dairy Programs, Agricultural Marketing Service, USDA, Washington, DC

The Vineyard of the Future

Emerging precision agriculture technologies and Big Data have the potential to transform grape and wine production, reshaping our vision for the future of specialty crop production.

Nick Dokoozlian, Vice President, Viticulture, Chemistry & Enology, Ernest & Julio Gallo Winery, Modesto, California

6:30 p.m.

DINNER SPEAKER

Salons III & IV



Mitchell E. Daniels, Jr.

President, Purdue University
Former Governor of the State of Indiana

Thank you attendees for making the Forum possible with your commitment and participation in this annual event.

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Friday, February 26, 2016

BREAKOUT SESSIONS

8:00am – 9:30am

TRACK: FOOD SECURITY

Regionalization of Pest and Disease Outbreaks: A Success Story

Salons A & B

Regionalization is a common strategy used to address pests and diseases that threaten agricultural productivity. It separates the disease-free and affected areas. Pests and diseases continue to be a major challenge to the agricultural industry. Globalization and the rise in international trade have moved countries to use regionalization to facilitate trade during times of pests and disease outbreaks.

Moderator: *Elvis Cordova, Deputy Under Secretary, Marketing and Regulatory Programs, USDA, Washington, DC*

Government Perspective on Regionalization, Its Implementation and How It Works

Pest outbreaks present challenges that require new regulatory and policy approaches. Regionalization is an approach that many State directors utilize to address them.

Lisa Ferguson, Director, Veterinary Service, Regionalization Evaluation Service, Animal and Plant Health Inspection Service, USDA, Riverdale, Maryland

Industry/Community Perspective on Regionalization

Regionalization is a pest management strategy, but also a business strategy, and many industries see it as an important tool to maintain productivity.

Ashley Peterson, Vice President, National Chicken Council, Washington, DC

International Perspective on Regionalization

The globalization of agriculture has made outbreaks a problem with much larger potential impacts. Regionalization can greatly minimize global impacts.

Stephanie Bloem, Executive Director, North American Plant Protection Organization, Raleigh, North Carolina

TRACK: CLIMATE CHANGE & VARIABILITY

Building Blocks for Smart Agriculture & Forestry

Salons V & VI

USDA is emphasizing the importance of partnerships with private, non-profit, and education stakeholders to leverage their expertise and resources to achieve the goals that USDA established for each building block. This session will focus on three of the agriculture-related building blocks, including perspectives from a cross-section of stakeholders.

Moderator: *William Hohenstein, Director, Climate Change Program Office, Office of the Chief Economist, USDA, Washington, DC*

Improving Fertilizer Utilization

A summary of actions the fertilizer industry is taking to provide farmers with the tools to improve fertilizer use efficiency, limit nitrate loss, and reduce field-level nitrous oxide emissions.

Chris Jahn, President, The Fertilizer Institute, Washington, DC

Managing Manure to Reduce Greenhouse Gases

A description of efforts to reduce greenhouse gas emissions from dairy operations through improved manure management.

Chad Frahm, Senior Vice President, Sustainability, Innovation Center for U.S. Dairy, Rosemont, Illinois

Improving Soil Health and Carbon Storage

A summary of efforts led by the Natural Resources Conservation Service to improve soil health, which leads to improved rainfall infiltration, reduced runoff, and additional carbon sequestration.

Jane Hardisty, State Conservationist, Natural Resources Conservation Service, USDA, Indianapolis, Indiana

TRACK: COMMODITY OUTLOOKS

Grains & Oilseeds Outlook

Salons III & IV

Moderator: *Joy Harwood, Director, Economic Policy Analysis Staff, Farm Service Agency, USDA, Washington, DC*

USDA Outlook for Grains & Oilseeds

Mark Simone, Food Grain Analyst, Farm Service Agency, USDA, Washington, DC

Outlook for El Niño and its Impact on Global Crop Weather

Harlan Shannon, Meteorologist, World Agricultural Outlook Board, Office of the Chief Economist, USDA, Washington, DC

State of Argentine Farm Policy and Market Conditions Post-Election

Ramiro Costa, Chief Economist, Buenos Aires Grain Exchange, Buenos Aires, Argentina

TRACK: COMMODITY OUTLOOKS

Sugar Outlook

Salons J & K

The session will include a discussion on the impacts of international exchange rates and world sugar and energy markets on the domestic sugar industry; the impacts of the Mexican/U.S. suspension agreement, the Trans-Pacific Partnership and the privatization of Mexican mills on the Mexican sugar industry; European Union reform and implications of Transatlantic Trade and Investment Partnership on sugar markets.

Moderator: *Barbara Fecso, Director, Dairy and Sweeteners Analysis Group, Farm Service Agency, USDA, Washington, DC*

Using Financial Instruments in World Sugar Trade

Discussion from a banker's perspective on world events such as international currency exchange rate impacts on U.S. sugar market.
Michael J. Swanson, Ag Economist, Senior Vice President, Wells Fargo Bank N.A., Bloomington, Minnesota

Sugar in Mexico: Implications From the Antidumping and Countervailing Duties Suspension Agreements

The discussion will focus on changes that have occurred in Mexico since the implementation of the December 2014 Suspension Agreement on Sugar.
Salvador Behar, Legal Counsel for International Trade, Secretaria de Economia, Washington, DC

EU Sugar Reform: Implications of the Ending of Production Sugar Quotas

Speaker will address the effects on production, exports, imports, trade-offs with isoglucose, raw sugar refining over the medium to longer term, and competitive effects within the EU.
Toby Cohen, Vice President of Market Analysis, ASR Group, London, England

TRACK: TRANSFORMING THE RURAL ECONOMY

Land Tenure & Transition

Focus on land tenure and transition has grown considerably in recent years, especially its impact on new and beginning farmers. As the average age of the principal farm operator continues to rise, the focus on this issue will only increase. Panelists will discuss legal and financial aspects of succession and estate planning as well as address land tenure and its impact on access and availability of land to new and beginning farmers.

Moderator: *Mary Bohman, Administrator, Economic Research Service, USDA, Washington, DC*

How Land Tenure Will Shape the Future of U.S. Agriculture

Land tenure is critical to American agriculture. It provides independence for farm families and creates wealth that can be transmitted across generations.
Neil Hamilton, Professor of Law and Director of the Agricultural Law Center, Drake University, Des Moines, Iowa

Insights Gained Through Extension Programming

Farm transitions are complex. Established operators struggle with how to identify a successor, share management and decisionmaking, and treat farm and non-farm heirs equitably.
Damona Doye, Regents Professor and Rainbolt Chair of Agricultural Finance, Oklahoma State University, Stillwater, Oklahoma

Rethinking Farmland Transition in the 21st Century

Julia Freedgood, Assistant Vice President, Programs, American Farmland Trust, Northampton, Massachusetts

Challenges and Paths Forward for Heir Property in the South

Panelist will discuss the history of heir property and share his personal experience with heir property in his family.
Randall Hildreth, Landowner, Atlanta, Georgia

Cultivating A Legacy

Discussion of State perspectives on encouraging and assisting beginning farmers and ranchers and highlighting successes and challenges of State programming.
Greg Ibach, Director and President, Nebraska Department of Agriculture, Lincoln, Nebraska

BREAKOUT SESSIONS

10:00am – 11:30am

TRACK: FOOD SECURITY

Collaboration With Stakeholders Improves Disease Outbreak Response

Salons A & B

Food Safety and Inspection Service modernization efforts include improving collaboration with its public health partners. Improved collaboration will ensure that public health decisions are better informed and more effective. This session will cover the roles of Federal and State entities in investigating foodborne illness outbreaks, the unique challenges they face and opportunities for increased collaboration.

Moderator: *Phil Derfler, Deputy Administrator, Food Safety and Inspection Service, USDA, Washington, DC*

A State-Level Perspective on Collaborating With Federal Partner Agencies

Speaker will relate her experiences collaborating with Federal agencies during foodborne illness outbreak investigations and share lessons learned.
Carlota Medus, Epidemiologist Principal, Foodborne Diseases Unit, Infectious Disease Epidemiology, Prevention, and Control Division, Minnesota Department of Health, St. Paul, Minnesota

Making Food Safer: Better Ways to Detect & Investigate Foodborne Outbreaks

A discussion on detection and investigation and the explanation of how the Centers for Disease Control and Prevention works with State and local health agencies and Federal regulatory partners during illness outbreaks.
Robert Tauxe, Deputy Director, Division of Foodborne, Waterborne and Environmental Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia

Improving Collaboration for Informed Public Health Decisionmaking

The discussion centers around challenges FSIS faces when making public health decisions and sharing FSIS' efforts to improve collaboration with public health partners.
Capt. David P. Goldman, Chief Medical Officer, U.S. Public Health Service, and Assistant Administrator, Office of Public Health Science, Food Safety and Inspection Service, USDA, Washington, DC

Continued on next page

TRACK: CLIMATE CHANGE & VARIABILITY

Agricultural Production in Brazil: Adapting to a Resilient Climate

Salons V & VI

In recent years, Brazil has become a leading producer and exporter of corn and soybeans. Reasons for this include relatively stable production due to technological advances and, in most years, abundant rainfall for production of various crops. There is also potential for expansion of farming into untapped lands, although infrastructure and land ownership issues are a limiting factor.

Moderator: Robert Tetrault, Crop Analyst, Foreign Agricultural Service, USDA, Washington, DC

Climate and Cropping Patterns in Brazil

The focus will be on Brazil's unique climate and the increases in agricultural production made possible by the shift of production into regions less prone to drought.

Mark Brusberg, Chief Meteorologist, World Agricultural Outlook Board, Office of the Chief Economist, USDA, Washington, DC

Monitoring Land Use and Land Cover Change for Agricultural Production

This presentation highlights innovative technologies used to track changes in land use for the purpose of identifying agricultural production and the potential for expansion.

Douglas Morton, Research Physical Scientist, National Aeronautics and Space Administration Goddard, Greenbelt, Maryland

In-Country Perspective of Changing Markets

The speaker will provide perspective on local markets and impacts that improved infrastructure and other factors could have on production and exports.

Clay Hamilton, Agricultural Counselor, Brasilia, Foreign Agricultural Service, USDA, Washington, DC

TRACK: COMMODITY OUTLOOKS

Livestock & Poultry Outlook

Salon III & IV

Moderator: Joel Greene, Analyst, Agricultural Policy, Resources, Science, and Industry Division, Congressional Research Service, Washington, DC

USDA Outlook for Livestock & Poultry

Shayle Shagam, Livestock Analyst, World Agricultural Outlook Board, Office of the Chief Economist, USDA, Washington, DC

Highly Pathogenic Avian Influenza Update

John Clifford, Deputy Administrator, Veterinary Services, Animal and Plant Health Inspection Service, USDA, Washington, DC

Shifting Egg Production to a Cage-Free Environment

David Rettig, President and CEO, Rembrandt Foods, Spirit Lake, Iowa

TRACK: COMMODITY OUTLOOKS

Cotton Outlook

Salons J & K

Moderator: Christiano Nogueira Scheidegger Maia, Cotton Research Analyst, BTG Pactual, London, England

The U.S. and World Cotton Outlook for 2016/17

Leslie Meyer, Senior Economist, Economic Research Service, USDA, Washington, DC

Stacked Income Protection Plan and Cotton Crop Insurance: First Year Results

Keith Coble, Giles Distinguished Professor, Mississippi State University, Mississippi State, Mississippi

Cotton Production in Brazil: Opportunities and Challenges

Nicolas Rubio, Agricultural Attaché (Adido Agrícola), Foreign Agricultural Service, USDA, U.S. Embassy, Brazil

TRACK: TRANSFORMING THE RURAL ECONOMY

The Future of Agricultural Credit and Insurance Provision Through Public/Private Partnerships

Salons I & II

A panel will discuss the way USDA provides agricultural credit and risk management services through private-government partnerships. Specifically how credit is extended through Farm Service Agency, USDA, guaranteed loan programs; how Risk Management Agency, USDA, aligns its crop insurance program with private partners; the way rural utility coops are financed through Rural Development, USDA; and how the Rural Infrastructure Opportunity Fund developed.

Moderator: Ken Ackerman, Lawyer, Olsson Frank Weeda Terman Matz P.C., Washington, DC

The Risk Management Agency, its Partners, and New Program Developments

A discussion on the current state of affairs at RMA, as well as the recent history of its relationship with its private partners and the impact of Farm Bill changes to the program.

Brandon Willis, Administrator, Risk Management Agency, USDA, Washington, DC

How does FSA's Guaranteed Farm Loan Program Benefit Beginning Farmers and Ranchers?

First Dakota National Bank is an FSA Guaranteed Farm Loan Program called "Preferred Lender." The bank supports beginning farmers and ranchers through FSA's Guaranteed Farm Loan Program.

Nathan Franzen, President, Agri-Business Division, First Dakota National Bank, Yankton, South Dakota

Strengthening Rural Lending Through USDA FSA's Public/Private Partnerships

As the largest secondary market investor of USDA loan guarantees, Farmer Mac will discuss how they collaborate with lenders nationwide to efficiently deliver capital to rural America.

Timothy Buzby, President and Chief Executive Officer, Farmer Mac, Washington, DC

Successful Public/Private Partnerships with the Rural Infrastructure Opportunity Fund

This discussion focuses on how the recently created Rural Infrastructure Opportunity Fund spurs public-private partnerships and financing in rural/agricultural sectors.

Matt McKenna, Community & Foundation Investment Senior Advisor, Office of the Secretary, USDA, Washington, DC

LUNCHEONS

12:15 – 1:30pm

TRACK: COTTON & FIBERS

Cotton & Fibers Luncheon

Salons J & K

Moderator: Bruce Atherley, Executive Director, Cotton Council International, Washington, DC

Price and Preference in U.S. Consumer Demand for Cotton

Julia K. Hughes, President, U.S. Fashion Industry Association, Washington, DC



TRACK: SUGAR & SWEETENERS

Sugar & Sweeteners Luncheon

Salons C, D & E

Moderator: Barb Fecso, Director, Dairy and Sweeteners Analysis Group, Farm Service Agency, Washington, DC

The Structure of Marketing Mechanisms as a Result of the Antidumping and Countervailing Duties Suspension Agreements with Mexico

Frank Jenkins, President, JSG Commodities, South Norwalk, Connecticut



TRACK: SPECIALTY CROPS

Specialty Crops Luncheon

Salons A & B

Moderator: Miles McEvoy, Deputy Administrator, National Organic Program, Agricultural Marketing Service, USDA, Washington, DC

Mushrooms and Organic Mushrooms: A Specialty Within a Specialty

Tina Ellor, Mycologist/Technical Director, Phillips Mushroom Farms, Kennett Square, Pennsylvania



TRACK: GRAINS & OILSEEDS

Grains & Oilseeds Luncheon

Salons III & IV

Moderator: Seth Meyer, Chairman, World Agricultural Outlook Board, Office of the Chief Economist, USDA, Washington, DC

Farm Income, Farm Values, and the Outlook for Ag Lending

Nathan Kauffman, Assistant Vice President and Omaha Branch Executive, Federal Reserve Bank of Kansas City, Omaha, Nebraska



TRACK: LIVESTOCK & POULTRY

Livestock & Poultry Luncheon

Salons V & VI

Moderator: Warren Preston, Deputy Chief Economist, Office of the Chief Economist, USDA, Washington, DC

Adding Value to Meat Through Further Processing

Brad Morgan, Senior Director of Protein, Performance Food Group Company, Richmond, Virginia



2:00pm – 3:30 pm

TRACK: FOOD SECURITY

Food Access, Food Security & Diet Quality

Salons J & K

The session highlights research and findings from interventions that can help guide private industry and public policy efforts to address food access barriers and improve diet quality.

Moderator: Rich Lucas, Deputy Administrator for Policy Support, Food and Nutrition Service, USDA, Washington, DC

The Salient Features of the Local Food Retail Environment for Low-Income Americans

This presentation addresses questions about where Supplemental Nutrition Assistance Program participants and low-income shoppers go for their groceries, and the qualities that predict consumer choices.

Shelly Ver Ploeg, Economist, Economic Research Service, USDA, Washington, DC

Addressing Food Access Barriers in Grocery Stores and Supermarkets: Private Sector Decisions and Policy Choices

This presentation highlights research on the effectiveness of in-store strategies to nudge low-income shoppers to devote more of their budget to healthier food.

Collin Payne, Associate Professor and Co-Director of the Consumer Behavior Lab, Marketing Department, New Mexico State University, Las Cruces, New Mexico

Addressing Food Access Barriers: The Promise and Potential of Small Food Retailers

This presentation examines how incentives and improvements to small stores can improve access to healthy choices in low-income and low-access communities.

Joel Gittelsohn, Professor, Department of International Health, Johns Hopkins University, Baltimore, Maryland

Continued on next page

TRACK: TECHNOLOGY

Applying USDA Technological Achievements to Global Agricultural Challenges

Salons A & B

Agriculture emerged at the dawn of civilization with domesticated crops and livestock feeding society. But it became clear that there are limits to sustaining a burgeoning population. Research has enabled profound and unimagined improvements in the quality, quantity, and safety of food; and the U.S. has led in this. Continued research is essential for the future of agriculture and society.

Moderator: *Sonny Ramaswamy, Director, National Institute of Food and Agriculture, USDA, Washington, DC*

Scientific and Technological Achievements of USDA Agencies and Emerging Technologies in Agriculture

The significant technological achievements in agricultural productivity and USDA's historical role in facilitating them.

Steven Shafer, Associate Administrator, Agricultural Research Service, USDA, Beltsville, Maryland

Adoption of the Latest Agricultural Technologies and Innovations by the Developed World

Discussion of how the latest agricultural technologies are being adopted by the developed world and especially agri-businesses.

Nicholas Kalaitzandonakes, Professor, University of Missouri, Columbia, Missouri

Adoption of the Latest Agricultural Technologies and Innovations by the Developing World

Discussion of how the latest agricultural technologies are being adopted by the developing world.

Philip Pardey, Professor and Director, International Science and Technology Practice and Policy (InSTePP) Center, University of Minnesota, St. Paul, Minnesota

TRACK: COMMODITY OUTLOOK

Dairy Outlook

Salon III

Moderator: *Peter Vitaliano, Vice President, Economic Policy & Market Research, National Milk Producers Federation, Arlington, Virginia*

USDA Dairy Outlook

Amanda Steeneck, Dairy Analyst, Agricultural Marketing Service, USDA, Washington, DC

Developing Fairlife Milk

Michael McCloskey, Founder, Fairlife Foods, Chicago, Illinois

Dairy in Science-Based Nutrition

Allison L. Specht, Sourcing and Risk Manager, Dairy Purchasing Global Supply Chain, Abbott Nutrition, Columbus, Ohio

TRACK: BIO-BASED ECONOMY

Bio-Products: Generating Economic Transformation

Salons V & VI

Agricultural innovation will continue to cause rapid growth of bio-based products across several sectors, with the potential to have

a tremendous impact on rural economies. This session will look at the impact of bio-based products on today's economy, specific sectors where research has triggered growth and the challenges and innovations that can have the potential to deliver new opportunities.

Moderator: *Lillian Salerno, Deputy Under Secretary, Rural Development, USDA, Washington, DC*

Agricultural Innovation is Transforming the U.S. Economy

Lead author from the recently released USDA bio-based study will discuss the study, including implications and challenges for future growth across all regions.

Jay Golden, Associate Professor, Department of Civil and Environmental Engineering, Duke University, Durham, North Carolina

Wood Pellets/Biomass

Industry discussion of the increased use of wood pellets for heating and electricity, and the impact on U.S. exports.

Jennifer Hedrick, Executive Director, Pellet Fuels Institute, Arlington, Virginia

A Downstream Perspective on Bio-Plastics and Renewable Chemicals

The discussion focuses on the use of bio-plastic bottles and renewable chemicals, and how they fit into the Coca-Cola Company's long-term packaging strategy.

Michael Knutzen, Global Program Director, PlantBottle, The Coca Cola Company, Atlanta, Georgia

TRACK: URBAN AGRICULTURE

Commercial Production in Urban Settings

Salons I & II

The continuing demand for locally grown food has brought a resurgence of small and mid-sized producers in the countryside surrounding larger cities, but competition for land limits increased conventional production. Increasingly, entrepreneurs are turning to nontraditional forms of agriculture to produce food within urban areas. This session highlights some of the new methods being used.

Moderator: *Elanor Starmer, Senior Advisor to the Secretary, USDA, Washington, DC*

Vertical Farming

This session looks at how AeroFarms uses racking, hydroponics, and energy-efficient lighting technologies to produce food year-round in urban areas.

Marc Oshima, Chief Marketing Officer and Co-Founder, AeroFarms, Newark, New Jersey

Rooftop Farming

How Brooklyn Grange Farm uses rooftop farming to address the scarcity of land and harness rainwater runoff in an urban setting.

Ben Flanner, Head Farmer and President, Brooklyn Grange Farm, Brooklyn, New York

Reclaiming Urban Land for Agricultural Production

A discussion on the challenges to reclaiming land for urban farming and describe how Baltimore has addressed the challenges and how the food is distributed.

Holly Freishtat, Baltimore City Food Policy Director, Office of Sustainability, Baltimore, Maryland

Congratulations to the 2016 USDA Agricultural Outlook Forum Student Diversity Program Winners

Undergraduate Student Winners Topic: “Agriculture as a Career”

Thaddeus Chatman, *Prairie View A&M University*

Julie Colvin, *Oregon State University*

Rhyne Cureton, *North Carolina A&T State University*

Kristianne Dowd, *Rutgers University*

Jelisa Fields, *Texas A&M University – College Station*

Cara Goch, *Michigan State University*

Morgan Goche, *South Dakota State University*

Raquel Gomez, *California State University – Stanislaus*

Phillip Harris, *Prairie View A&M University*

Doris Ihejirika, *University of Maryland College Park*

Taschua Jeboda, *University of Delaware*

Jenna Lansing, *Iowa State University*

Cara McDermott, *University of Florida*

Jamal Palmer, *University of Maryland Eastern Shore*

Juan Rios California, *State University – Stanislaus*

Ashley Romero, *San Diego State University – Imperial Valley*

Moises Umanzor, *University of Maryland College Park*

Gabriel Varon, *University of Puerto Rico – Mayaguez*

Benjamin Webster, *University of Maryland Eastern Shore*

Hang Zhong, *North Carolina State University*

Graduate Winners Topic:

“The Greatest Challenge Facing Agriculture Over the Next 5 Years”

Folagbayi Arowolo, *University of Wisconsin – Madison*

Arquette Grant, *University of Maryland Eastern Shore*

Kelly Gravuer, *University of California – Davis*

Brittany Hoover, *North Carolina A&T State University*

Sofia Macchiavelli Girón, *University of Wisconsin – Madison*

Brandi Murley, *Oklahoma State University*

Katherine Murphy, *University of California – Davis*

Elizabeth Walsh, *Texas A&M University – College Station*

Gracie Valdez, *St. Mary's University*

Madiha Zaffou, *University of Connecticut*

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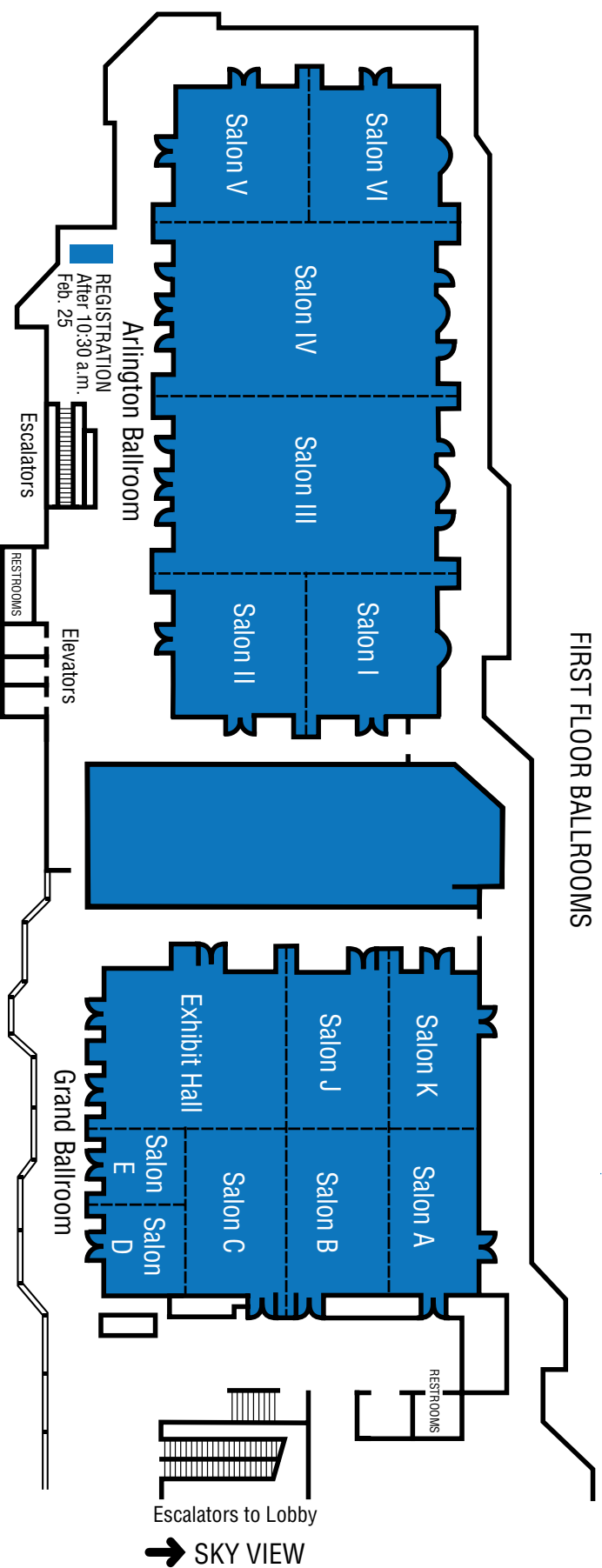
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USDA's 2017 Agricultural Outlook Forum February 23-24, 2017

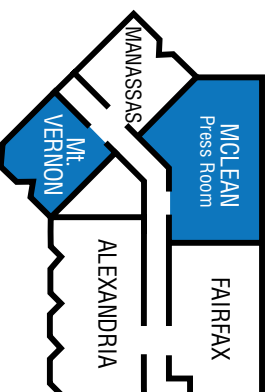
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