



United States Department of Agriculture

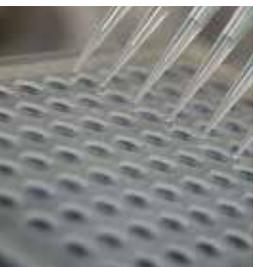
USDA's 91st Annual
AGRICULTURAL OUTLOOK FORUM

Smart Agriculture in the 21st Century

A Discussion on Innovation, Biotechnology, and Big Data



February 19-20, 2015
Crystal Gateway Marriott Hotel, Arlington, Virginia



www.usda.gov/oce/forum



Welcome



Seth Meyer
Program Chair

At this year's USDA's annual Agricultural Outlook Forum, attendees will have the opportunity to discuss relevant issues on a wide range of international as well as domestic topics. In that spirit, USDA welcomes Phil Hogan, the European Commissioner of Agriculture and Rural Development, whom Secretary Tom Vilsack will engage in a broad-ranging discussion; and Dr. Richard Haass, President of the Council on Foreign Relations, speaking on "Food, Foreign Policy & International Order." We look forward to hearing Secretary Vilsack moderate our plenary session panel with Cory Reed, Dr. Robert Fraley, Mary Kay Thatcher, and Dr. Robert Sutor, as they explore Innovation, Biotechnology, and Big Data.

Thank you all, speakers and attendees, for participating in the 2015 Forum!

USDA Agricultural Outlook Forum Student Diversity Program

USDA's Agricultural Outlook Forum Student Diversity Program was launched in 2007, thanks to program partner the **University of Maryland Eastern Shore** and sponsors **CHS, Inc., Farm Credit, and USDA's Economic Research Service, Agricultural Research Service, and Natural Resources Conservation Service**. Excerpts from a 2015 Program Winner's Essay:

“Agriculture is not just a career for me; it is a passion. I was introduced to agriculture at an early age when I worked in the orchards with my parents. I would complain because I did not want to wake up at 4:00AM and work in the fields, but every time I complained my parents would tell me, “This is why you have to stay in school.” I made it a life goal to pursue a higher education. My opinion [of agriculture] began to change when my horticulture teacher persuaded me to become part of the National FFA Organization. Through the FFA, I quickly started learning about the importance of agriculture. Agriculture is the industry where an individual has the power to make a difference at a global scale.”

RODRIGO BONILLA, SENIOR, MAJORING IN AGRICULTURE FOOD SYSTEMS AND ECONOMICS, WASHINGTON STATE UNIVERSITY

Congratulations to 2015 Program winners (page 15)!



USDA *Market News* has been leading big data for the agricultural industry for 100 years. Since 1915, USDA *Market News*, administered by the Agricultural Marketing Service, has been assisting producers of agricultural commodities in adapting their production and marketing strategies to meet changing consumer demands, marketing practices, and technologies.

For Forum coverage, follow @USDA and #AgOutlook



United States Department of Agriculture

Smart Agriculture in the 21st Century



Welcome



Krysta Harden
Deputy Secretary
of Agriculture

2015 Agricultural Outlook



Robert Johansson
USDA Acting Chief
Economist

Roundtable Discussion on Agriculture



Tom Vilsack
Secretary of
Agriculture



Phil Hogan
European Commissioner of
Agriculture & Rural Development

Food, Foreign Policy & International Order



Dr. Richard N. Haass
President, Council on
Foreign Relations

Dinner Speaker



Ambassador Darci Vetter
Chief Agriculture Negotiator
Office of the United States
Trade Representative

Plenary Panel: A Discussion on Innovation, Biotechnology, and Big Data



Cory J. Reed
John Deere & Company



Dr. Robert T. Fraley
Monsanto



Mary Kay Thatcher
American Farm Bureau
Federation



Dr. Robert Sutor
IBM Corporation

Deputy Secretary Harden Moderates Session: Tomorrow's Opportunities & Hosts Women's Networking Event

www.usda.gov/oce/forum

You Are Invited To Attend:

February 19

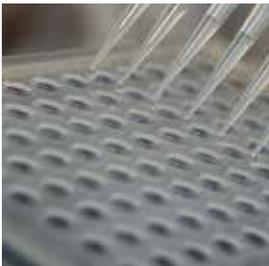
Morning Coffee	Salons A, B, C, D Foyer <i>10:00 a.m.</i>
Networking Luncheon	Salons A, B, C, D, E & Skywalk <i>12:30 a.m.</i>
Women's Networking	Skywalk <i>3:30 p.m.</i>
Reception	Exhibit Hall Salons F, G & H <i>5:30 p.m.</i>
Forum Dinner	Salons III & IV <i>6:30 p.m.</i>

February 20

Luncheons	12:15 – 1:30 p.m.
• Cotton & Fibers	Salons I & II
• Sugar & Sweeteners	Salons J & K
• Local Foods	Salons A & B
• Grains & Oilseeds	Salons III & IV
• Livestock & Poultry	Salons V & VI

On USDA's Forum Web Site: www.usda.gov/oce/forum, you will find:

- **Speaker biographies and attendee list:** Posted online
- **Plenary Webcast:** Posted after 6 p.m. February 19
- **Commodity Outlooks:** Posted at 7 a.m. February 20
- **Speaker Presentations:** Posted after 6 p.m. February 20



Smart Agriculture in the 21st Century

Thursday, February 19

7:00 a.m.	Registration (Wednesday Evening Early Onsite Registration 5-7 p.m.)
7:30 a.m.	Exhibit Hall Opens Salons F, G, & H
8:00 a.m.	Welcome
8:05 a.m.	2015 Agricultural Economic & Foreign Trade Outlook
8:30 a.m.	Food, Foreign Policy and International Order
9:00 a.m.	Roundtable Discussion
10:00 a.m.	Coffee Break & Exhibit Hall Opens
10:30 a.m.	Plenary Panel - A Discussion on Innovation, Biotechnology, and Big Data
12:30 p.m.	Networking Luncheon (60-75 minutes) Salons A, B, C, D, & E

Concurrent Sessions (90 minutes)

1:45 p.m.	Food Price & Farm Income Outlooks	International Trade	Big Data	Conservation	New Opportunities
	Food Price Outlook Salon IV	Driving Forces of the Changing Global Markets Salon III	Using Data & Analytics to Improve Productivity Salons I & II	Water Scarcity: What's the Biggest Challenge to Solutions? Salons V & VI	Tomorrow's Opportunities Salons J & K
3:15 p.m.	Break WOMEN'S NETWORKING EVENT-SKYWALK-3:30				
3:45 p.m.	Farm Income Outlook Salon IV	Growing Markets for U.S. Exports Salon III	USDA Market News: 100 Years & Counting Salons J & K	Can Voluntary Conservation Meet Regulatory Needs? Salons V & VI	Nutrition Programs & New Opportunities for Producers Salons I & II
5:30 p.m.	Cash Bar Reception (Exhibit Hall)				
6:30 p.m.	Forum Dinner Speaker Salons III & IV				

Concurrent Sessions (90 minutes)

Friday, February 20

8:00 a.m.	Rural America	Protecting Our Food Supply	Climate Change *** Weather	Commodity Outlooks	Commodity Outlooks
	A Regional Approach to Rural Growth Salons V & VI	What's the Buzz About Bees? Salons A & B	Climate Smart Agriculture Salons I & II	Sugar Outlook Salons J & K	Grains & Oilseeds Outlook Salons III & IV
9:30 a.m.	Break				
10:00 a.m.	Adjusting to a New Price Environment Salons A & B	Antimicrobial Resistance Salons V & VI	Weather, Drought, & Big Data Salons I & II	Cotton Outlook Salons J & K	Livestock & Poultry Outlook Salons III & IV

Visit Exhibit Hall

12:15 p.m.	Luncheons (75 Minutes)				
	Cotton & Fibers Salons I & II	Sugar & Sweeteners Salons J & K	Local Foods Salons A & B	Grains & Oilseeds Salons III & IV	Livestock & Poultry Salons V & VI

1:30 p.m. Break

Concurrent Sessions (90 minutes)

2:00 p.m.	Food Waste	Protecting Our Food Supply	Bio-Economy	Transportation	Commodity Outlooks
	U.S. Food Waste: What Are We Doing About It? Salons A & B	Modernizing Food Safety Salons J & K	Growing the Bio-Economy Salons I & II	Moving Feed, Food, & Fuel to Market Salon III	Dairy Outlook Salons V & VI

3:30 p.m. Adjourn

USDA is an equal opportunity provider and employer.

February 2015

Smart Agriculture in the 21st Century

Thursday, February 19, 2015

PLENARY

8:00 a.m.

Welcome

**Agricultural Economic & Foreign Trade Outlook
Food, Foreign Policy and International Order
Roundtable Discussion**

10:00-10:30 a.m.

Break

10:30-noon

Panel Discussion on Innovation, Biotechnology, and Big Data

BREAKOUT SESSIONS

1:45 – 3:15 p.m.

TRACK: FOOD PRICE & FARM INCOME OUTLOOKS

Food Price Outlook for 2015

Salon IV

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: *Tim Park, Food Markets Branch Chief, Economic Research Service, USDA
Washington, DC*

Outlook for U.S. Food Prices and Inflation in 2015

A presentation of the latest Economic Research Service (ERS) outlook for retail food prices in general and across major food categories, recent historical trends in food expenditure patterns, and the relationship between food prices and inflation in the general economy. *Annemarie Kuhns, Economist, Economic Research Service, USDA
Washington, DC*

The View From the Retail Grocery Industry

Willard Bishop Consulting provides business management and strategic consulting services to the retail grocery industry, including solutions related to pricing, promotion, and consumer value. Hauptman runs the firm's retailer services practice and will discuss how commodity price volatility has affected the grocery industry and the firm's strategies to manage risk and remain price competitive. *Jon Hauptman, Partner, Willard Bishop Consulting
Barrington, Illinois*

The Situation and Outlook for the Foodservice Industry

The National Council of Chain Restaurants is the leading trade association exclusively representing chain restaurant companies, including quick-service and table-service restaurants. This

presentation will focus on the challenges of managing costs and the strategies used to maintain affordable, away-from-home meal choices.

*Rob Green, Executive Director, National Council of Chain Restaurants
Washington, DC*

TRACK: INTERNATIONAL TRADE

Driving Forces in Changing Global Trade

Salon III

The Black Sea region, Argentina, and now India have become major suppliers in markets where they had not been dominant before. This session will focus on dynamic trade patterns with special emphasis on new and emerging suppliers.

Moderator: *Daniel Basse, President, AgResource Company
Chicago, Illinois*

The Global Grain Market: Black Sea Region

There has been a major change in world grain markets as exports from the Black Sea Region have increased substantially. Speaker will give a broad perspective on the Black Sea Region, discussing the trends, policies, and prospects for production, logistics, and general climate conditions for grain and the potential impact on U.S. markets. *Andrey Sizov Jr., Managing Director, SovEcon
Moscow, Russia*

The Global Agricultural Market: Argentina

Speaker will give a broad perspective on the trends, policies, and prospects for production, logistics, and general climate conditions for Argentine agricultural exports and the potential impact on U.S. markets. *Alex Wells, Private Consultant, Argentina Trade Policy Issues
Montevideo, Uruguay*

The Emergence of India as a Major Global Exporter

Speaker will discuss India's rapid growth as a huge net exporter, especially to other developing countries, as well as discuss the production trends and policies driving this growth. *S. Baskar Reddy, Executive Director, Syngenta Foundation India
New Delhi, India*

TRACK: BIG DATA

Using Data & Analytics to Improve Productivity

Salons I & II

Moderator: *Cheryl Cook, Chief Information Officer, USDA
Washington, DC*

In Cook's opening remarks, she can be expected to emphasize how Big Data and analytics are offering new opportunities for farmers and ranchers to improve the efficiency and resilience of their operations. She will discuss the challenge of collecting, processing, and packaging data in a way that makes it into practical "tools" for use by farmers and ranchers.

Using Remote Sensing & Risk-Management Tools to Make Informed Decisions

Remote sensing offers new benefits for how farmers can more easily quantify spatial variations within fields for the application of risk management tools.

*Jerry Hatfield, National Laboratory for Agriculture and the Environment, Agricultural Research Service, USDA
Ames, Iowa*

A Web Resource for Data & Tools on Climate & Crops: AgroClimate.org

“AgroClimate.org” acts as a Web resource of tools and data on climate and crops that can be used to assist with decisions about the management of agricultural systems in the Southeastern United States. The Web site adjusts to work seamlessly on PCs, tablets, and smartphones by automatically adjusting the content for the screen of individual devices.

*Clyde Fraisse, Department of Agricultural and Biological Engineering, University of Florida
Gainesville, Florida*

From Field to Globe: The Impact of Location-Centric Big Data Across the Value Chain

Real-time localized agriculturally interpreted weather data supports farmer productivity with viable business information across the value chain. Daily localized weather data, agronomic and economic models, locally tuned applications, and robust data integration services address a range of needs, from field-level operations to worldwide agricultural challenges.

*John Corbett, President, CEO, and Agricultural Climatologist, aWhere
Wheat Ridge, Colorado*

TRACK: CONSERVATION

Water Scarcity: What's the Biggest Challenge to Sustainable Solutions?

Salons V & VI

This session combines an overview of today's growing water scarcity challenges, with a review of immediate responses to address the lack of water, and a look at the barriers to crafting a comprehensive strategy for sustainable solutions. The wrap-up discussion will look at how this plays out at the State and local levels.

Moderator: *Leslie Weldon, Deputy Chief, Forest Service, USDA
Washington, DC*

Current and Future Water Scarcity – A Look at the Challenges & Hard Decisions

*Tom Brown, Economist, Rocky Mountain Research Station's Social and Economic Values Group, Forest Service, USDA
Fort Collins, Colorado*

Innovations, Technologies, New Partnerships & Market-Based Approaches—How These Approaches & Alternative Water Supplies Address Immediate Challenges

Speaker will cover public-private partnerships between producers and water utilities, future opportunities, and current challenges.

*Bobby Cochran, Executive Director, Willamette Partnership
Portland, Oregon*

Who's the Gorilla in the Room?

What is the biggest obstacle to a comprehensive, sustainable long-term water strategy?

*James W. Richardson, Regents Professor, AgriLife Research Senior Faculty Fellow, Co-Director Agricultural and Food Policy Center, Department of Agricultural Economics, Texas A&M University
College Station, Texas*

What Do Scarcity, Alternatives & Comprehensive Strategies Mean for Today's Efforts to Address Water Challenges?

*Glenda Humiston, California State Director, Rural Development, USDA
Davis, California*

TRACK: NEW OPPORTUNITIES

Tomorrow's Opportunities

Salons J & K

USDA Deputy Secretary Krysta Harden will convene a panel to discuss the potential of agriculture as a career, and the importance of new and beginning farmers and ranchers.

Moderator: *Deputy Secretary of Agriculture, Krysta Harden, USDA
Washington, DC*

*Derrick Lente, Esq., Owner, Lente Law Group & Lente Land and Cattle
Albuquerque, New Mexico*

*Jamie Cruz, Greenhouse and Crop Production Manager, CSA-Retail-Wholesale, SpringDell Farm
Littleton, Massachusetts*

*Calvin Riggelman, Bigg Rigg Farm & Gourmet Central
Romney, West Virginia*

*Quint Pottinger, Affinity Farms
New Haven, Kentucky*

*Elsa Torres, B&J Orchard and Vineyard
Moxee, Washington*

3:30-4:00 pm

Women's Networking Event

Skywalk

Everyone is invited to this informal networking reception that will feature brief remarks from Krysta Harden, Deputy Secretary of Agriculture; Sandra Winokur, Sandy Oaks Olive Orchards; and Laura Ginsberg, Golden Yoke Farm and Creamery. Please take this opportunity to discuss a wide range of topics with colleagues, both known and new.

Continued on next page

3:45 – 5:15 p.m.

TRACK: FOOD PRICE & FARM INCOME OUTLOOKS

Farm Income Outlook for 2015

Salon IV

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: *Bill Thomson, Senior Ag Reporter, Politico
Washington, DC*

Income Outlook for the U.S. Farm Sector in 2015

A presentation of USDA's most recent estimates and forecasts of U.S. aggregate net farm income and value added, along with various measures of the strength of the farm economy.

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

Farm and Farm Household Income Trends

A review and outlook for farm income and well-being at the household level, including on- and off-farm income and comparisons with non-farm households.

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

A Banker's Perspective on the Strength of the Farm Economy

A banker's perspective on the strength of the farm economy and the outlook for income growth across the sector.

*Stephen Gabriel, Chief Economist, Farm Credit Administration
Washington, DC*

Growing Markets for U.S. Exports

Salon III

Global demand for agricultural products is expected to remain strong. This session will explore the growing markets for U.S. exports.

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

The Future of China Demand & Trade

China drives import growth in Asia. Speaker will discuss the growing importance of livestock and dairy sectors, and supportive or restrictive policies affecting and expanding trade. Gale conducts research and market analysis on China agriculture and international trade as well as the U.S. farm structure, rural economy, and manufacturing employment issues.

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

Expanding Markets for U.S. Horticultural Exports: Tree Nuts

Speaker will discuss the rapid growth of U.S. tree nuts exports (and horticultural exports in general) and the regions where they expect to see the most growth in the next decade.

*Bill Morecraft, International Sales Manager, Blue Diamond Growers
Baltimore, Maryland*

Opening New U.S. Markets

The speaker will discuss opening new markets for U.S. agricultural products in the context of trade policy.

*Jason Hafemeister, Chief Negotiator for Trade, Foreign Agricultural Service, USDA
Washington, DC*

USDA Market News: 100 Years & Counting

Salons J & K

The *Market News* has provided crucial agricultural market information to producers, processors, marketers, and consumers since 1915. This session celebrates *Market News*, past, present, and future.

Moderator: *Terry Long, Fruit & Vegetables Market News Director, Agricultural Marketing Service, USDA
Washington, DC*

Long will give a brief overview of *Market News*' history.

Market News Around the World

USDA's *Market News*' impact is felt around the world, providing both data of international import and a model to other nations.

*Lloyd Day, Deputy Director, Inter-American Institute for Cooperation on Agriculture, Former Administrator, Agricultural Marketing Service, USDA
San Jose, Costa Rica*

The Value of Market News

Market News information has value throughout the supply chain, ultimately making the system fairer and more efficient

*Dave Lehman, Managing Director, CME Group
Chicago, Illinois*

The Future of Market News

Speaker will discuss a vision of a smarter *Market News* for the future, adding new value to American agriculture.

*Bob Young, Chief Economist, American Farm Bureau Federation
Washington, DC*

Can Voluntary Conservation Meet Regulatory Needs?

Salons V & VI

This session will explore the role of conservation in meeting regulatory requirements on the farm. One of the most important considerations is the feasibility of utilizing voluntary conservation measures to address regulatory requirements and the assurance by the regulator that there will not be additional actions. This "regulatory certainty" may expand voluntary conservation to the level that the regulatory threshold is not reached.

Moderator: *Jason Weller, Chief, Natural Resources Conservation Service, USDA
Washington, DC*

Options for Landowners to Meet Regulatory Needs with Voluntary Conservation

Speaker will give an overview of the alternatives and options of addressing regulatory requirements with voluntary conservation activities. He will describe alternative approaches, including mitigation banking and credit trading, the role of the regulator and

markets, and the role of conservation practices, and how USDA conservation programs fit into the picture.

*Chris Hartley, Deputy Director, Office of Environmental Markets and the Senior Environmental Markets Analyst, Office of the Chief Economist, USDA
Washington, DC*

Conservation Programs and Endangered Species Act Predictability

At least 7 species are protected by the Endangered Species Act (ESA) where conservation programs serve to provide habitat and landowners with some protection from regulatory action. Speaker will address ESA regulatory requirements and how and where conservation programs are being used and may be used in the future to protect species.

*Jim Serfis, Chief, Branch of Communications and Candidate Conservation, Ecological Services Program, Fish and Wildlife Service
Falls Church, Virginia*

Minnesota Agricultural Water Quality Certification Program

The Minnesota Agricultural Water Quality Certification Program provides a voluntary approach for agricultural landowners to become certified through a whole-farm evaluation that assesses the operation's risk to water quality. Farmers receive regulatory certainty for their 10-year certification which stipulates they are in compliance with State laws and rules. This program is the first in the Nation using regulatory certainty to address non-point source pollution.

*Matthew Wohlman, Assistant Deputy Commissioner, Minnesota Department of Agriculture
St. Paul, Minnesota*

Nutrition Programs & New Opportunities for Producers

Salons I & II

This session will discuss current nutrition promotion initiatives with an eye to their potential impact on the agricultural markets, including an increased focus on local purchasing through farmers' markets and other venues, and explore opportunities for collaboration and partnership between the agriculture sector and public and private health promotion agencies.

Moderator: *Cindy Long, Deputy Administrator, Child Nutrition, Food and Nutrition Service, USDA
Alexandria, Virginia*

The Role of Nutrition Assistance Programs & Impacts on Agricultural Markets

Speaker will discuss the role and impacts of the nutrition assistance programs in U.S. agricultural markets and potential demand effects of shifting to a food supply that more closely conforms to the recommendations of the Dietary Guidelines for Americans.

*Ephraim Leibtag, Senior Economist, Food Economics Division, Economic Research Service, USDA
Washington, DC*

The Changing Needs of School Districts as Consumers

Speaker will address the changing needs of school districts as consumers.

*Marla Caplon, Director, Food and Nutrition Service, Montgomery County Public Schools
Rockville, Maryland*

How Is Industry Responding to New Nutrition Standards?

Speaker will address how the industry is responding to new standards (especially meals and Smart Snacks) and how these will drive future marketplace change.

*Kate Houston, Director, Federal Government Relations, Cargill, Inc.
Washington, DC*

6:30 p.m.

DINNER SPEAKER

Salons III & IV



The Trans-Pacific Partnership (TPP) and Transatlantic Trade and Investment Partnership (T-TIP): Unlocking Economic Opportunity and Advancing American Leadership in Agriculture

Ambassador Darci Vetter
Chief Agriculture Negotiator
Office of the United States Trade Representative

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BREAKOUT SESSIONS

8:00 – 9:30 a.m.

TRACK: RURAL AMERICA

A Regional Approach to Rural Growth

Salons V & VI

As our marketplace becomes more global, it is important that we use every opportunity to expand and strengthen rural economies so that they remain competitive. The 2014 Farm Bill recognized the importance of regional strategies in promoting economic growth. This session will explore regional strategies and how USDA expects to develop an array of innovative tools and programs to help all regions become sources of growth.

Moderator: *Doug O'Brien, Deputy Under Secretary for Rural Development, USDA
Washington, DC*

Will Today's Strategies Produce Prosperity?

How we address economic development challenges affecting growth and prosperity today can change the future landscape. Speaker will discuss how regional economic strategies affect communities and the fundamental strategies behind efforts that work.

*Emilia Istrate, National Association of Counties
Washington, DC*

Innovation & Collaboration: Our Role in Strengthening the Rural Economy

Investment in economic development can encourage business and expand job growth. How do we determine which investments will deliver returns and yield sustainable results? A careful analysis of communities' strengths, capacity, and vision is critical to developing the assistance and partnerships for success. Find out how EDA addresses rapidly evolving economies.

*Thomas Guevara, Deputy Assistant Secretary for Regional Affairs, Economic Development Administration, U.S. Department of Commerce
Washington, DC*

What Does a Successful Regional Strategy Look Like?

The communities most in need of regional strategies are often those without the resources to develop business plans, investment strategies, efficient and affordable supply chains, and cost-benefit analyses. Yet, USDA research shows that money spent on food produced locally tends to stay and circulate in the community, expanding the potential for job creation and spurring economic growth. How can a community develop local and regional food systems and acquire the tools and resources to turn disadvantages into benefits?

*Malini Ram Moraghan, Managing Director, Wholesome Wave Investments
Bridgeport, Connecticut*

TRACK: PROTECTING OUR FOOD SUPPLY

Bees as Pollinators: What's All the Buzz?

Salons A & B

Bees are by far the most important pollinators, from the plant and crop production point of view. The main reason is that they collect pollen to feed their young, unlike butterflies, moths, flies, beetles, etc. But they have to visit enough flowers to collect enough pollen to feed an entire nest. Thus, they have evolved specially designed structures and hairs for this purpose. There are an estimated 3,700-4,000 species of bees native to North America, in addition to the more commonly known honeybee. With the rise of issues such as Colony Collapse Disorder, bee and pollinator health has become a crucial issue for agriculture.

Moderator: *Robyn Rose, National Policy Manager, Honey Bee Health Program, Animal and Plant Health Inspection Service, USDA
Riverdale, Maryland*

Bee Diversity & Habitat

*Sam Droege, Biologist, U.S. Geological Survey, Patuxent Wildlife Research Center
Beltsville, Maryland*

Diseases & Pesticides Affecting Bee Health

*Rosalind James, Agricultural Research Service, USDA
Beltsville, Maryland*

Bees on the Farm

*Gordon Wardell, Senior Bee Biologist, Paramount Farming Company
Bakersfield, California*

TRACK: CLIMATE CHANGE

Climate-Smart Agriculture

Salons I & II

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

Defining Climate-Smart Agriculture

Speaker will focus on technical issues, including the three objectives of climate-smart agricultural (CSA) systems: improving resilience to climate change; improving production and productivity; and addressing greenhouse gas emissions. A technical working group is being formed to identify practices, technologies, and approaches that can make agricultural systems more "climate-smart."

*Kerri Steenwerth, Research Soil Scientist, Crops Pathology and Genetics Research Unit & Co-Director, California Climate Sub Hub, Agricultural Research Service, USDA
Davis, California*

Supporting Profitability with Climate-Smart Agriculture

Climate change has already and will continue to alter options for profitable agriculture. This talk will discuss the benefits of integrating the potential consequences of climate change into national agricultural policy, public and private-sector research strategies,

planning from local to global levels and across landscapes, and on-farm decisionmaking. It will discuss the benefits of linking sustainable agriculture intensification with climate adaptation, resilience, and disaster risk-reduction efforts. The speaker will also address the benefits of incorporating climate-smart agriculture practices into public and private information delivery services for the farming community.

*Gerald C. Nelson, Professor Emeritus, University of Illinois, Urbana-Champaign
Urbana, Illinois*

Investments in Climate-Smart Agriculture

Improving the effectiveness of public and private investments is a key pillar of climate-smart agriculture. This talk will address opportunities to encourage public and private investments and options to review their compatibility with climate-smart agriculture principles. The discussion will address options for identifying existing and new sources of financing for climate-smart agriculture; developing methodologies and metrics to guide investment strategies; creating incentives for farmers to adopt climate-smart practices and to invest in practical approaches to climate-smart systems. Practical examples include investments in drought early warning systems and contingency plans in relation to extreme weather events.

*Marc Sadler, Advisor, Risk & Markets, World Bank
Washington, DC*

COMMODITY OUTLOOKS

Sugar Outlook

Salons J & K

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

Prospects for U.S. Raw Cane Sugar Refining

Given new terms of trade between Mexico and the U.S., negotiations culminating on the Trans-Pacific Partnership (TPP), the liberalization of the European Union's sugar regime in 2017, and the normalization of trade between the U.S. and Cuba, how will the U.S. cane refining sector weather the changes?

*Larry Faucheux, CEO and General Manager, Louisiana Sugar Refining, LLC
Gramercy, Louisiana*

*Liz Clark, Vice President Government Affairs, National Confectioners Association
Washington, DC*

*Paul Farmer, President, CSC Sugar
New Canaan, Connecticut*

Grains & Oilseeds Outlook

Salons III & IV

Moderator: *Patrick Packnett, Assistant Deputy Administrator, Office of Global Analysis, Foreign Agricultural Service, USDA
Washington, DC*

Brazil's Response to Lower Commodity Prices: Will Infrastructure Improvements Support Further Expansion?

*Michael Cordonnier, Soybean and Corn Advisor
Hinsdale, Illinois*

USDA Grains & Oilseeds Outlook

*Bill George, Senior Agricultural Economist, Foreign Agricultural Service, USDA
Washington, DC*

Current Agricultural Industrial Reports (CAIR)

*Troy Joshua, Chief, Environmental, Economics, and Demographics Branch, National Agricultural Statistics Service, USDA
Washington, DC*

10:00 – 11:30 a.m.

Adjusting to a New Price Environment – Implications for the Farm & Trade Programs

Salons A & B

This panel will discuss several aspects of commodity prices and how they affect producers and USDA programs. These include the possibility of triggering dormant safety net programs, how USDA farm risk protection will shift from yield protection programs to price/revenue protection programs, how the new 2014 Farm Bill Programs will address this new situation, as well as the implications for global agricultural trade relationships.

Moderator: *Patrick Westhoff, Director, Food and Agricultural Policy Research Institute, (FAPRI), University of Missouri–Columbia
Columbia, Missouri*

USDA Long-Term Commodity Outlook and Price Baseline

Speaker will discuss the implications of lower commodity prices for near-term adjustments in the sector as well and longer term projections for the next decade.

*Paul Westcott, Agricultural Economist, Economic Research Service, USDA
Washington, DC*

Low Price Impacts on Farm Program Payments and Farm Incomes

*Gary Schnitkey, Professor, University of Illinois
Urbana, Illinois*

The Global Implications of Prices on International Agricultural Policies and Relationships

*Jason Carver, Senior Economist, Office of Global Analysis, Foreign Agricultural Service, USDA
Washington, DC*

Antimicrobial Resistance

Salons V & VI

In the mid 19th century science began to understand how microorganisms caused disease. The modern age of treatment for such diseases was ushered in by Alexander Fleming's discovery of the antibiotic penicillin in 1928. Perhaps lesser known were his cautions about improper use leading to resistance. Today resistance

Continued on next page

to whole classes of antibiotics threatens to shrink medicine's "toolkit." This session examines the importance of antibiotics to health and agriculture, the challenges posed by resistance, and the actions being taken now and needed for the future to ensure that the benefits of Fleming's discovery continue.

Moderator: *Bernadette Dunham, Director, Center for Veterinary Medicine, U.S. Food and Drug Administration
Rockville, Maryland*

Speaker's introductory remarks will emphasize why antimicrobial resistance (AMR) is a public health issue and what the scientific community is doing to address risks.

Agricultural Perspectives

Crops, livestock, and soils all impact and are impacted by the microbial world. The speaker will discuss both the effects of antimicrobial resistance on them as well as the role they may play in addressing antimicrobial resistance.

*Charles Rice, University Distinguished Professor of Soil Microbiology, Department of Agronomy, Kansas State University
Manhattan, Kansas*

Agri-Public Health Interface Infectious Disease, Human Health, and Agriculture

A recent report of the President's Council of Advisors for Science and Technology provides both an overview of the human and agricultural implications of antimicrobial resistance and sets out a plan for addressing it. The speaker will provide an overview of this holistic approach and the research, policy, and educational roles for agriculture, medicine, and government.

*Lonnie J. King, Dean and Professor, Department of Veterinary Preventive Medicine, The Ohio State University
Columbus, Ohio*

Responding to Antimicrobial Resistance

Actions and initiatives by the White House and USDA are beginning to address the broad needs for research, education, and surveillance with regard to the use and stewardship of antimicrobials and for addressing the development and spread of resistance. The speaker will provide an overview of those activities and discuss developing actions in research and education.

*Steven Kappes, Deputy Administrator, Animal Production and Protection, Agricultural Research Service, USDA
Beltsville, Maryland*

Weather, Drought & Big Data: The Role of Data in Preparing For & Responding to Drought

Salons I & II

The session highlights developments in improving the capability of the agricultural sector to withstand the economic impacts of drought. Since the 1990s, the focus on drought assessment and mitigation has shifted from response to preparation. While many States have plans in place, there is no comprehensive Federal policy preparing for the inevitability of drought. Since 2012, USDA has taken steps to address gaps in the availability of data, products, and services, through strengthened partnerships with National Oceanic and Atmospheric Administration and other Federal partners.

Moderator: *Mark Brusberg, Deputy Chief Meteorologist, Office of the Chief Economist, USDA
Washington, DC*

Brusberg is involved in several intergovernmental projects focused on drought monitoring and mitigation.

Monitoring Drought at the National Level: National Integrated Drought Information System

Speaker will outline the efforts undertaken to coordinate the Federal response to drought and provide support to communities developing drought mitigation strategies.

*Roger Pulwarty, Director, National Integrated Drought Information System, National Oceanic and Atmospheric Administration
Boulder, Colorado*

Dealing With Drought at the Regional Level: The California Crisis

Speaker will summarize the current situation in California and highlight the collaborative efforts of Federal, State, and local Governments, as well as Non-Governmental Organizations (NGOs) and tribal groups, to establish best practices for all aspects of monitoring, mitigation, and information dissemination.

*Ryan Velasco, Deputy for Natural Resource Response and Recovery, White House Council on Environmental Quality
Washington, DC*

Identifying New Opportunities: Developing a National Soil Moisture Network

Speaker will describe activities underway to develop a National Soil Moisture Monitoring Network.

*Mike Strobel, Director, National Water and Climate Center, Natural Resources Conservation Service, USDA
Portland, Oregon*

Cotton Outlook

Salons J & K

Moderator: *Joanne Vande Werken, Cotton Research Manager, Noble Agri
Houston, Texas*

USDA Cotton Outlook: The World and U.S. Cotton Outlook for 2015/16

*Carol Skelly, Fibers Analyst, Interagency Commodity Estimates Committee Chair, World Agricultural Outlook Board, USDA
Washington, DC*

Price and Production Challenges Facing West Texas Cotton Farmers

*Kelli Merritt, President, CropMark Select
Lamesa, Texas*

China's Cotton Sector and the New Policy Regime

*Dale Cougot, General Manager, Knowledge Management, Olam International
Richardson, Texas*

Livestock & Poultry Outlook

Salons III & IV

Moderator: Warren P. Preston, Associate Deputy Administrator, Livestock, Poultry, and Seed Program, Agricultural Marketing Service, USDA
Washington, DC

USDA Livestock & Poultry Outlook

Michael Jewison, Agricultural Economist, Office of the Chief Economist, USDA
Washington, DC

Implications of Wildlife Management Property Tax Valuation on Livestock Industry Growth

Tiffany Dowell Lashmet, Assistant Professor & Extension Specialist, Agricultural Law, Texas A&M, AgriLife Extension Service
Amarillo, Texas

Porcine Epidemic Diarrhea Update: Is the Worst Past?

Liz Wagstrom, Chief Veterinarian, National Pork Producers Council
Washington, DC

LUNCHEONS

12:15 p.m.

Cotton & Fibers Luncheon

Salons I & II

Moderator: Jose Sette, Executive Director, International Cotton Advisory Committee
Washington, DC

Low Prices and Government Intervention in India: Can Expansion in Cotton Consumption and Trade Be Sustained?

Colin Iles, Glencore Cotton Trader, Glencore Grain BV
Rotterdam, Netherlands



Sugar & Sweeteners Luncheon

Salons J & K

Moderator: Michael McConnell, Agricultural Economist, Market & Trade Economics, Crops Branch, Economic Research Service, USDA

Global Trends and Perspectives for Sugar & Ethanol

Plinio Nastari, DATAGRO
Brazil



Local Foods Luncheon

Salons A & B

Moderator: Anne Alonzo, Administrator, Agricultural Marketing Service, USDA
Washington, DC

The Growth of Local Foods: Threat or Opportunity?

Nancy Creamer, Director, Center for Environmental Farming Systems, Distinguished Professor of



Sustainable Agriculture and Community Based Food Systems, North Carolina State University
Raleigh, North Carolina

Grains & Oilseeds Luncheon

Salons III & IV

Moderator: Robert Johansson, Acting Chief Economist, USDA
Washington, DC

Issues Affecting Rail Grain Transportation

John Miller, Vice President, Industrial Products Sales, BNSF Railway
Fort Worth, Texas



Livestock & Poultry Luncheon

Salons V & VI

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

Structural Consumer Upheaval: How the Meat Sector Can Adapt

Heather L Jones, Managing Director, Food & Agribusiness, BB&T Capital Markets, Equity Research
Richmond, Virginia



2:00 p.m.

TRACK: FOOD WASTE

Salons A & B

U.S. Food Waste: What Are We Doing About It?

In the United States, food waste is estimated at between 30-40 percent of the food supply. This estimate, which is based on USDA's Economic Research Service estimates of food loss at the retail and consumer levels of 31 percent, corresponded to approximately 133 billion pounds and \$161 billion worth of food in 2010. This amount of waste has far-reaching impacts on food security, resource conservation, and climate change. Speakers will examine some of the activities that USDA and others in the agricultural sector are undertaking to reduce food waste.

Moderator: Elise Golan, Director of Sustainable Development, Office of the Chief Economist, USDA
Washington, DC

Golan will provide an update on the U.S. Food Waste Challenge, which USDA launched with the U.S. Environmental Protection Agency in June 2013.

Grades and Marketing Order Standards for Fruit and Vegetables

Speakers will provide an overview of marketing orders and USDA's grading services along with a discussion of the various outlets, such as food banks, permitted for produce that fails to meet minimum grade or standard but is still healthful.

Michael V. Durando, Director, Marketing Order and Agreement Division, Fruit and Vegetable Program, Agricultural Marketing Service, USDA
Washington, DC

Continued on next page

*Evan Lutz, CEO, Hungry Harvest
Baltimore, Maryland*

Hungry Harvest is a produce delivery and hungry-relief service specializing in surplus produce, including “funny-looking and ugly fruits and vegetables.”

Innovative Technologies Target Food Waste

Speaker will spotlight innovative technologies and systems developed by USDA scientists and others to reduce, recover, and recycle food loss and waste.

*Tara McHugh, Research Leader, Healthy Processed Foods Research Unit, Agricultural Research Service, USDA
Albany, California*

TRACK: PROTECTING OUR FOOD SUPPLY

Modernizing Food Safety

Salons J & K

The 2013 FSIS Agricultural Outlook Forum session in part examined upcoming possibilities for far-reaching and revolutionary advances in food safety. This 2015 session re-focuses on that theme and advances it still further. What role can technology and research play? How can FSIS better collaborate with its public health partners in our new world that emphasizes horizontal communication? What vision for modernization can serve as a guide going forward?

Moderator: *Al Almanza, Administrator, Food Safety and Inspection Service, USDA
Washington, DC*

A Vision for Modernization

*Al Almanza, Deputy Under Secretary for Food Safety, and Administrator, Food Safety and Inspection Service, USDA
Washington, DC*

Genome Sequencing and Its Prospects for Progress in Food Safety

*David G. White, Chief Science Officer and Research Director, Office of Foods and Veterinary Medicine, Food and Drug Administration
Silver Spring, Maryland*

Food Safety Through Data Sharing and Socialization

*Carl Schroeder, Director, Food Safety and Commodity Specification Division; Livestock, Poultry, and Seed Program, Agricultural Marketing Service, USDA
Washington, DC*

TRACK: BIO-ECONOMY

Growing the Bio-Economy

Salons I & II

The National Bio-Economy Blueprint (2012) noted the importance of the bio-economy for national security, growth potential, job creation, reduced dependence on oil, and environmental benefits. This session will discuss transitioning to and growing the bio-economy, provide global perspectives on the bio-economy, and address moving forward in the 21st century.

Moderator: *Catherine Woteki, Under Secretary for Research, Education, and Economics, USDA
Washington, DC*

Framing the Bio-Economy

Speaker will define the bio-economy and address issues such as: the current potential size of the bio-economy and the benefits and opportunities of transitioning to the bio-economy.

*Jonathan Male, Director, Bioenergy Technologies Office, Office of Energy Efficiency and Renewable Energy, Department of Energy
Washington, DC*

The Role of Stakeholders in Transitioning To & Growing the Bio-Economy

Speaker will discuss where we want to transition to, identify key stakeholders in the bio-economy, and explain their roles in growing the bio-economy. Stakeholders include the U.S. Government, industry, and landowners.

*Dennis Hall, Director, Ohio Bio-Products Innovation Center
Columbus, Ohio*

Global Perspectives on the Global Bio-Economy

Speaker will present an international dimension and focus on lessons learned and directions and strategies from other countries and their regions, as they pursue the potential for the bio-economy.

*James Philp, Science and Technology Policy Analyst, Organization for Economic Co-operation and Development
Paris, France*

TRACK: TRANSPORTATION

Moving Feed, Food & Fuel to Market

Salon III

The session will cover a range of topics on the transportation and logistics of bringing the crop to market. Session speakers will discuss how the transport of agricultural commodities, along with oil, coal, ethanol and other users, fit into the future plans of railroad operators, look at the U.S. barge system and how it impacts agricultural commodities, and give a coop's perspective on the logistics of handling large crops in terms of storage, marketing, and shipping.

Moderator: *Marina Denicoff, Economist, Transportation and Marketing Programs,
Agricultural Marketing Service, USDA
Washington, DC*

The Outlook for Railroad Demand

Speaker will discuss a railroad perspective on the demand for rail services and where agricultural commodities, fertilizer, ethanol, coal for rural electric utilities, oil, and intermodal fit into their future plans.

*John T. Grey, Senior Vice President, Policy and Economics,
Association of American Railroads
Washington, DC*

The Logistics and Dynamics of U.S. Barge Transportation

Speaker will discuss the logistics and demands of the U.S. barge system and how it services agricultural markets.

*Ken A. Eriksen, Senior Vice President, Transportation, Industrials and Energy Services, Informa Economics, Inc.
Memphis, Tennessee*

A Co-op Perspective: Storing, Marketing & Shipping Big Crops

Speaker presents a co-op perspective on the logistics of handling a large crop. Plenty of room for discussion here about how members store, market, and ship a “big crop.”

*Dan Mack, Vice President, Rail, Transportation and Terminal Operations, CHS Inc.
Inver Grove Heights, Minnesota*

Dairy Outlook

Salons V & VI

Moderator: *Roger Cryan, Director, Economics Division, Dairy Programs, Agricultural Marketing Service, USDA
Washington, DC*

USDA Dairy Outlook

*Shayle Shagam, Livestock & Poultry Analyst, Interagency Commodity Estimates Committee Chair, Office of the Chief Economist, USDA
Washington, DC*

Dairy Farmers of America's Joint Dairy Venture With the Chinese

*Jay Waldvogel, Senior Vice President, Strategy & International Development, Dairy Farmers of America
Chippewa Falls, Wisconsin*

Becoming a Globally Relevant Cooperative: Sourcing Dairy From Around the World

*Rick Pedersen, Commercial Director, Fonterra (USA)
Rosemont, Illinois*

Congratulations to USDA's Agricultural Outlook Forum Student Diversity Program Winners

Undergraduate Students Chosen Based on Winning Essays, “Agriculture as a Career”:

Alexis Allen, Tennessee State University
Nicole Bayne, Oklahoma State University
Taylor Benedict, University of Arizona – Yuma
Darryl Blakely, Pennsylvania State University
Rycal Blount, North Carolina A&T State University
Rodrigo Bonilla, Washington State University
Ariel Bourne, University of Maryland College Park
Nathan Carson, University of Florida
George Collier, University of Maryland Eastern Shore
Jamie Duggan-Lara, San Diego State University-Imperial Valley
Conlee Fry, Prairie View A&M University
Morgan Fortune, Tuskegee University
Onelisa Garza, Texas A&M University – Kingsville
Petros Maskal, California State University – Stanislaus
Kaylin McNary, Prairie View A&M University
Jamal Palmer, University of Maryland Eastern Shore
Fatma Rekik, Cornell University
Martin Sanchez, Oregon State University
Gianfranco Santaliz-Rogers, University of Puerto Rico at Mayaguez
Malcolm Smith, Iowa State University

Graduate Students Chosen Based on Winning Essays: “The Greatest Challenge Facing Agriculture Over the Next 5 Years”:

Parker Byington, Washington State University
Latisha Judd, University of Maryland College Park
Heather King, Humboldt State University
Alison Leathers, Tennessee State University
Emily Loehmer, Southern Illinois University – Carbondale
Holly Mayton, University of California, Riverside
Joshua Moore, University of Arizona
Wallace Seda-Calderon, Pontifical Catholic University of Puerto Rico
Cassandra Skenandore, University of Illinois at Urbana-Champaign
Melissa Woolpert, University of Vermont

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Either online or via next week's e-mail!

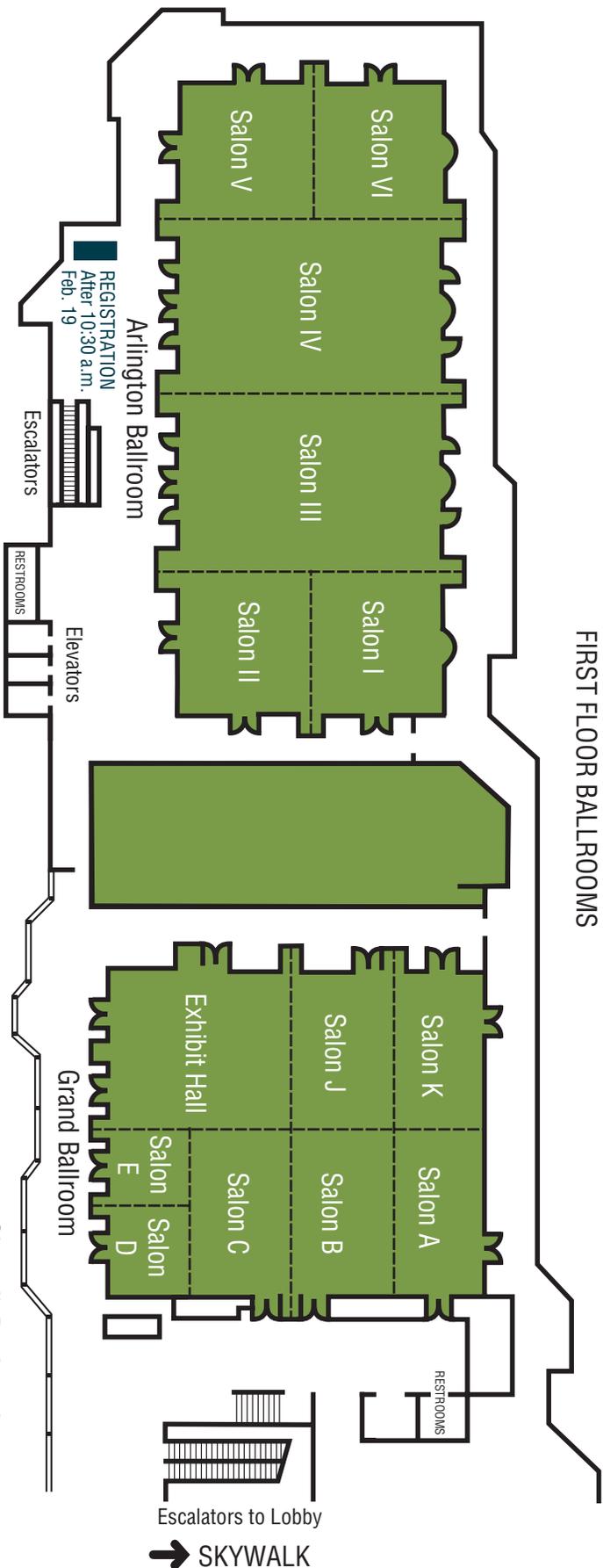
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**USDA's 2016 Agricultural Outlook Forum
February 25-26, 2016**

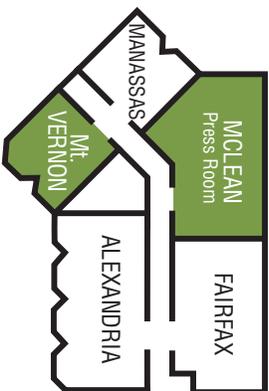
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Hotel Entrance



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