

WASHINGTON REPORT

Lee Van Wychen
Director of Science Policy
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Farm Bill Agreement Unlikely: Expect at Least a One Year Extension

On March 15, President Bush said he would ask Congress to pass a one-year extension of the farm bill if the House and Senate cannot negotiate a new Farm Bill by April 18. Congress passed another extension of the 2002 Farm Bill, this time a 30-day extension, on March 12. Lawmakers are hoping to finish up negotiations on a \$280 billion five-year policy overhaul before the president's deadline.

House-Senate negotiations have been stymied by a stalemate between the White House and Congress over how to pay for about \$10 billion in new spending beyond the bill's \$280 billion baseline. Lawmakers must offset that new spending with cuts to other programs or tax revenue.

The President insists he will not sign a bill that includes new taxes. He has also pushed for significant restructuring of agricultural subsidies, a hard sell among lawmakers who represent big farming districts.

A squabble brewing between the Senate Agriculture and Finance committees is complicating matters. The Finance panel is responsible for coming up with offsets to support the extra \$10 billion in spending, but Agriculture Committee Chairman Tom Harkin, D-Iowa, says those efforts are infringing on his jurisdiction.

Fed up with feuds in the Senate, House negotiators say they are poised to write a new farm bill that includes no new spending above the baseline.

Energy Independence and Security Act Becomes Law on December 19, 2007

After much fanfare and political wrangling, the House and Senate passed the Energy Independence and Security Act (EISA) and President Bush signed it into law (Public Law 110-140) on December 19, 2007. EISA sets new renewable fuel goals and raises the average fuel economy standard for automobiles for the first time in 32 years to 35 miles per gallon by 2020. More importantly, EISA requires that by 2022, the United States of America work to produce 36 billion gallons of renewable fuels. The mandated sources of those 36 billion gallons are:

1. Cellulosic-based ethanol- 20 billion gallons
2. Corn ethanol- 15 billion gallons
3. Biodiesel- 1 billion gallons

The WSSA Science Policy Committee has worked diligently over the past year on multiple fronts to ensure that any federal programs on cellulosic energy production move forward in a “smart” way. The WSSA does not advocate the ill contrived “precautionary principle” when it comes to using weeds for cellulosic biomass. However, the WSSA does not want to see the USDA intentionally introduce the next kudzu (*Pueraria montana*) or see the Department of Interior intentionally introduce the next salt cedar (*Tamarix ramosissima*). EISA includes an important section (Section 204) in this regard, titled “Environmental and Resource Conservation Impacts”. Specifically:

*“Not later than 3 years after the enactment of this section and every 3 years thereafter, the Administrator of the **Environmental Protection Agency**, in consultation with the Secretary of **Agriculture** and the Secretary of **Energy**, shall assess and report to Congress on the impacts to date and likely future impacts of the requirements on the following:*

- (1) Environmental issues, including air quality, effects on hypoxia, pesticides, sediment, nutrient and pathogen levels in waters, acreage and function of waters, and soil environmental quality.*
- (2) Resource conservation issues, including soil conservation, water availability, and ecosystem health and biodiversity, including impacts on forests, grasslands, and wetlands.*
- (3) **The growth and use of cultivated invasive or noxious plants and their impacts on the environment and agriculture.***

In advance of preparing the report required by this subsection, the Administrator may seek the views of the National Academy of Sciences or another appropriate independent research institute. The report shall include the annual volume of imported renewable fuels and feedstocks for renewable fuels, and the environmental impacts outside the United States of producing such fuels and feedstocks. The report required by this subsection shall include recommendations for actions to address any adverse impacts found.”

The first step in the new law will be to boost renewable fuel production to 9 billion gallons in 2008, an increase of at least 2 billion gallons over last year. To help in that endeavor, EISA provides funding for research on production of so-called advanced biofuels, such as “cellulosic” ethanol from switchgrass, corn stover or other organic materials. **If you are a WSSA member, you should be establishing partnerships with your colleagues and positioning yourself for the \$600 million included in the following four sections of EISA (Section’s 207, 223, 230 and 234):**

SEC. 207: GRANTS FOR PRODUCTION OF ADVANCED BIOFUELS.

- (a) In General.--The Secretary of Energy shall establish a grant program to encourage the production of advanced biofuels.*
- (b) Requirements and Priority.--In making grants under this section, the Secretary--*

- (1) shall make awards to the proposals for advanced biofuels with the greatest reduction in lifecycle greenhouse gas emissions compared to the comparable motor vehicle fuel lifecycle emissions during calendar year 2005; and
 - (2) shall not make an award to a project that does not achieve at least an 80 percent reduction in such lifecycle greenhouse gas emissions.
- (c) **Authorization of Appropriations.**--There is authorized to be appropriated to carry out this section \$500,000,000 for the period of fiscal years 2008 through 2015.

SEC. 223. GRANTS FOR BIOFUEL PRODUCTION RESEARCH AND DEVELOPMENT IN CERTAIN STATES.

- (a) *In General.*--The Secretary shall provide grants to eligible entities for research, development, demonstration, and commercial application of biofuel production technologies in States with low rates of ethanol production, including low rates of production of cellulosic biomass ethanol, as determined by the Secretary.
- (b) *Eligibility.*--To be eligible to receive a grant under this section, an entity shall--
1. (1)(A) be an institution of higher education (as defined in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801)), including tribally controlled colleges or universities, located in a State described in subsection (a); or
 2. (B) be a consortium including at least 1 such institution of higher education and industry, State agencies, Indian tribal agencies, National Laboratories, or local government agencies located in the State; and
 3. (2) have proven experience and capabilities with relevant technologies.
- (c) **Authorization of Appropriations.**--There are authorized to be appropriated to the Secretary to carry out this section \$25,000,000 for each of fiscal years 2008 through 2010.

SEC. 230. CELLULOSIC ETHANOL AND BIOFUELS RESEARCH.

- (a) *Definition of Eligible Entity.*--In this section, the term "eligible entity" means--
- (1) an 1890 Institution (as defined in section 2 of the Agricultural Research, Extension, and Education Reform Act of 1998 (7 U.S.C. 7061));
 - (2) a part B institution (as defined in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061)) (commonly referred to as "Historically Black Colleges and Universities");
 - (3) a tribal college or university (as defined in section 316(b) of the Higher Education Act of 1965 (20 U.S.C. 1059c(b))); or

- (4) a Hispanic-serving institution (as defined in section 502(a) of the Higher Education Act of 1965 (20 U.S.C. 1101a(a))).
- (b) **Grants.**--*The Secretary shall make cellulosic ethanol and biofuels research and development grants to 10 eligible entities selected by the Secretary to receive a grant under this section through a peer-reviewed competitive process.*
- (c) **Collaboration.**--*An eligible entity that is selected to receive a grant under subsection (b) shall collaborate with 1 of the Bioenergy Research Centers of the Office of Science of the Department.*
- (d) **Authorization of Appropriations.**--*There is authorized to be appropriated to the Secretary to make grants described in subsection (b) \$50,000,000 for fiscal year 2008, to remain available until expended.*

SEC. 234. UNIVERSITY BASED RESEARCH AND DEVELOPMENT GRANT PROGRAM.

- (a) **Establishment.**--*The Secretary shall establish a competitive grant program, in a geographically diverse manner, for projects submitted for consideration by institutions of higher education to conduct research and development of renewable energy technologies. Each grant made shall not exceed \$2,000,000.*
- (b) **Eligibility.**--*Priority shall be given to institutions of higher education with--*
- (1) *established programs of research in renewable energy;*
 - (2) *locations that are low income or outside of an urbanized area;*
 - (3) *a joint venture with an Indian tribe; and*
 - (4) *proximity to trees dying of disease or insect infestation as a source of woody biomass.*
- (c) **Authorization of Appropriations.**--*There are authorized to be appropriated to the Secretary \$25,000,000 for carrying out this section.*
- (d) **Definitions.**--*In this section:*
- (1) **Indian tribe.**--*The term "Indian tribe" has the meaning as defined in section 126(c) of the Energy Policy Act of 2005.*
 - (2) **Renewable energy.**--*The term "renewable energy" has the meaning as defined in section 902 of the Energy Policy Act of 2005.*
 - (3) **Urbanized area.**--*The term "urbanized area" has the meaning as defined by the U.S. Bureau of the Census.*

To access the full 311 page EISA, please visit the Government Printing Office (GPO) website at: http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_public_laws&docid=f:pub1140.110.pdf

Gealy Presents CAST Gene Flow Report on Capitol Hill

On February 25, Dr. David Gealy, WSSA Treasurer and USDA-ARS Weed Scientist from Stuttgart, AR traveled to Washington DC to present the results of the Council for Agricultural and Science Technology (CAST) Issue Paper titled: "Implications of Gene Flow in the Scale-up and Commercial Use of Biotechnology-derived Crops: Economic and Policy Considerations". This Issue Paper identifies the nature of gene flow and how it relates to adventitious presence, describes the biological traits being imparted into biotech crops, summarizes present risk assessment and regulatory mechanisms, and discusses potential economic effects and policy and research ramifications of gene flow of commercial biotech crops. The paper can be obtained at <http://www.cast-science.org> Dr. Gealy also presented the results of this paper twice more on February 25, once at the USDA South Building and once at the Biotechnology Industry Organization (BIO).

This seminar was part of the National Coalition for Food and Agricultural Research (National C-FAR) 'Lunch-N-Learn' Seminar Series. National C-FAR is a nonprofit, nonpartisan, consensus-based and customer-led coalition that brings food, agriculture, nutrition, conservation and natural resource stakeholders together with the food and agriculture research community, serving as a forum and a unified voice in support of sustaining and increasing public investment at the national level in food and agricultural research, extension and education. The WSSA is a member of National C-FAR, and as Director of Science Policy, I serve as liaison between the National C-FAR and WSSA.

INSERT PHOTO "Gealy Addresses Congressional Staffers". CAPTION- *"WSSA Treasurer Dr. David Gealy presents the findings of the CAST issue paper 'Implications of Gene Flow in the Scale-up and Commercial Use of Biotechnology-derived Crops: Economic and Policy Considerations' to Congressional Staff at the House Rayburn Office Building in Washington DC."*

INERT PHOTO "Glenn Gealy Bonner". CAPTION- **"Two Down and One to Go. Dr. Barb Glenn, Director of Animal Biotechnology with the Biotechnology Industry Organization (BIO), Dr. David Gealy, WSSA Treasurer, and Dr. John Bonner, CAST Executive Vice President, pause for a quick photo before heading over to BIO for Dr. Gealy's 3rd presentation of the day to public and private stakeholders in Washington DC."**

Science and Engineering Indicators 2008

On January 15, the National Science Board (NSB) released the Science and Engineering Indicators 2008 available at www.nsf.gov/statistics/indicators The NSB, whose primary role is oversight of the National Science Foundation (NSF), is required by law to report to the President and the Congress on the state of science and engineering research and education every two years. This report highlights a trend in many parts of the world toward the development of more knowledge-intensive economies, in which research, its

commercial exploitation, and other intellectual work play a growing role. Implicit in the discussion are the key roles **played by industry and government** in these changes.

This 18th report compiles data from a variety of national, international, and private sources and provides key analyses on the national science, engineering, and technology workforce and education, research and development trends, public support for science, and federal support for academic scientists and engineers. Additionally, it provides indicators and analyses for individual states and the District of Columbia.

Some findings include:

Research and development within the US:

- The U.S. is the largest, single research and development-performing nation, supplying a record high \$340 billion for research and development in 2006.

- Of this \$340 billion, basic research accounted for 18 percent (\$62 billion); applied research accounted for 22 percent (\$75 billion); and development accounted for the other 60 percent (\$203 billion).

- In real terms, federal obligations for all academic research (both basic and applied) declined between 2004 and 2005 and are expected to drop further in 2006 and 2007. This represents the first multi-year decline for academic research since 1982.

Public support for science:

- In a 2006 survey, 87 percent of Americans supported government funding for basic research, up from 80 percent in surveys dating back to 1979.

- In 2006, Americans expressed greater confidence in leaders of the scientific community than any other institution except the military.

Federal support for academic scientists and engineers:

- Academic science and engineering doctorate holders who received federal support has remained steady during the last 20 years: 48 percent in 2006 and the late 1980s.

- However, among life scientists, this percentage has dropped from 65 percent in 1989 to 58 percent in 2006.

In addition to the Indicators report, the NSB issued a companion piece, "Research and Development: Essential Foundation for U.S. Competitiveness in a Global Economy," with three policy recommendations:

1. The Federal Government should take action to enhance the level of funding for, and the transformation nature of, basic research.
2. Industry, government, the academic sector, and professional organizations should take action to encourage greater intellectual interchange between industry and

academia, with industry researchers encouraged to also participate as authors and reviewers for articles in open, peer-reviewed publications.

3. New data are critically needed, and this need should be addressed expeditiously by relevant Federal agencies, to track the implications for the U.S. economy of the globalization of manufacturing and services in high technology industry.

The National Cooperative Weed Management Area (CWMA) Conference

“People-Powered Projects: The National Cooperative Weed Management Area (CWMA) Conference” will be held April 15-17, 2008, in Reno, NV. Representatives from all 50 states will gather to focus on CWMA funding and logistics, working with volunteers, EDRR, awareness and outreach, and state and national initiatives. The conference will conclude with an all-day field trip to sites in the Reno area.

Cooperative Weed Management Areas mobilize communities to prevent and manage invasive plants and to support healthy ecosystems. Join CWMA workers, land managers, and concerned citizens in a national conference to learn from each other, improve approaches to CWMA organization and management, and increase support for CWMA across the United States.

The event is organized by the Center for Invasive Plant Management and co-hosted by organizations from across the U.S. For more information, visit http://www.weedcenter.org/CWMAconf/cwma_conf.htm

Bonanno Selected to First-Ever EPA Farm, Ranch and Rural Communities Federal Advisory Committee

Continuing efforts to strengthen relations with the agriculture community, EPA has established the first-ever Farm, Ranch and Rural Communities (FRRC) Federal Advisory Committee. The committee was formed under the guidelines of the National Strategy for Agriculture, and it will advise the administrator on environmental policy issues impacting farms, ranches and rural communities and operate under the rules of the Federal Advisory Committee Act (FACA).

The first time members of the 30 person FRRC Federal Advisory Committee were announced on February 20 and the WSSA was quite fortunate to have one of its own members, Dr Rich Bonanno selected to serve on this very important committee. As many of you know, Rich is quite active in the WSSA and long time chairman of the Science Policy Committee and Past President of the Northeastern Weed Science Society. Rich is the owner/operator of Pleasant Valley Gardens in Methuen, MA and Adjunct Professor and Extension Educator at the University of Massachusetts-Amherst. For more on Dr. Bonanno’s biography as well as the other 29 committee members, please visit: <http://www.epa.gov/agriculture/frcc/members.html>

The FRRC Advisory Committee will meet approximately twice yearly and is intended to consist of approximately 25 members representing: (1) large and small farmers, ranchers and rural communities; (2) rural suppliers, marketers and processors; (3) academics and researchers who study environmental issues impacting agriculture; (4) tribal agricultural groups; and (5) environmental and conservation groups.

EPA's Agriculture Strategy: <http://www.epa.gov/agriculture/agstrategy.html>
Agriculture Regulatory Web site: <http://www.epa.gov/agriculture/law.html>

Will You Be the Next USDA-ARS National Program Leader for Weed Science?

As many of you have heard, the USDA Agricultural Research Service (ARS) will be looking for a new National Program Leader for Weed Science after May 1. Equally as important, USDA will be soliciting customer input for its National Program 304 (NP 304), Crop Protection and Quarantine. This is the **WSSA Science Policy Committee's NUMBER 1** priority. The WSSA Board of Directors sent the following letter to Secretary of Agriculture Ed Schafer on February 15:

*The Honorable Edward Schafer
Secretary
U.S. Department of Agriculture
1400 Independence Ave., S.W.
Jamie L. Whitten Building, Rm. 200-A
Washington DC 20250*

Dear Secretary Schafer:

We are contacting you to emphasize the importance of the National Program Leader for Weed Science at the Agricultural Research Service (ARS). We understand that Dr. Ernest Delfosse, the current National Program Leader for Weed Science, will be taking a position outside ARS this spring. The Weed Science Society of America (WSSA) is the professional organization representing nearly 2000 individuals in the public and private sectors, including university researchers, teachers, and extension personnel, along with land managers, consultants, agribusiness representatives, government agency employees, and others directly involved in the development and implementation of weed management programs. The WSSA strongly supports filling this position as soon as possible with a qualified weed scientist.

The economic impact of weeds and invasive plants on the Nation's agriculture, water quality, wildlife and recreation in the U.S. is estimated at \$34.7 billion annually. Herbicides are the largest group of pesticides applied in the United States, with total use greater than that for insecticides and fungicides combined. With the critical need for increased implementation of Integrated Pest Management strategies and the desire for reductions in pesticide use, a National Program Leader for Weed Science is a necessity to achieve these goals. On any given acre of cropland, failure to control weeds results in

50 to 90 percent yield loss. In 3 national surveys, organic farmers ranked weed control as their number one priority among 30 different research areas. Invasive plants are threatening natural aquatic and terrestrial ecosystems at an unprecedented rate, and are particularly a threat to habitat for endangered species. While advances have been made to minimize the impact of weeds and invasive plants in agricultural and natural systems using sound environmental strategies, this leadership position in ARS is vital for continued advances in the science of integrated weed management.

The USDA-ARS National Program for Crop Protection and Quarantine (NP 304) is the second largest program within ARS, with 236 full time scientists devoted to this effort. The fiscal year budget for NP 304 was \$102.8 million, representing almost 10 percent of ARS's total research budget. Based on the national need for research to mitigate the impact of weeds, and the size of the current ARS program to address this critical issue, a National Program Leader for Weed Science is an absolute necessity.

The mission of the ARS Crop Protection and Quarantine National Program is "to provide technology to manage pest populations below economic damage thresholds by the integration of environmentally compatible strategies that are based on increased understanding of the biology and ecology of insect, mite, and weed pests." Without a National Program Leader for Weed Science, it will be impossible to fulfill this mission.

The WSSA commends USDA for having the vision to create this important position originally, and urge you in the strongest terms to represent the interests of agriculture, public and private land managers, and the general public by maintaining this essential position with a qualified Weed Scientist. Failure to do so will greatly impair USDA's ability to serve the needs of a diverse set of stakeholders.

Sincerely,

*Dr. Jeffrey Derr
2008 WSSA President*

*cc: Gale Buchanan, Under Secretary for REE, USDA
Edward Knipling, Administrator, ARS
House and Senate Agriculture & Appropriation committees*

In addition to filling this critical USDA-ARS Weed Scientist position, USDA-ARS will be soliciting customer input for the Crop Protection and Quarantine National Program 304 (NP 304) Workshop to be held at the Hyatt Regency Miami Hotel in Miami, Florida from 11:00 a.m., Tuesday, May 20, through 4:30 p.m., Friday, May 23, 2008. The purpose of the workshop is to initiate the next 5-year cycle of the Crop Protection and Quarantine National Program (NP 304).

The **expected outcomes and goals** from the USDA-ARS NP 304 Workshop for ARS customers, stakeholders, and partners include:

- A better understanding of crop protection and quarantine issues relating to insects, mites and weeds
- Identified and prioritized areas for increased research emphasis, emerging issues and critical “gaps” as well as those issues that may be de-emphasized.
- Strengthened professional and interpersonal relationships with other meeting participants.
- Identified highest priority NP 304 problem areas that ARS will address in the next 5 years.
- Identified specific products associated with the highest priority problem areas.
- Developed the framework for the new Action Plan.
- Agreed upon assignments and deadlines for completion of this Action Plan.

The initial NP 304 Customer Review Workshop invitations have already been sent out. However, if you would like to attend the Workshop in Miami, please email Lee.VanWychen@wssa.net stating your interest in being added to the invitation list. Dr. Ed Knipling, USDA-ARS Administrator, Dr. Earnest Delfosse, USDA-ARS NPL for Weed Science, and Dr. Gail Wisler, USDA-ARS NPL for Plant Diseases have assured us that WSSA could add interested customers to the invite list and we greatly appreciate their support in this regard.

Please note that while the NP 304 Workshop is scheduled from May 20-23, the Hyatt Regency Miami Hotel room block may only be available at \$119.00 per night until April 18. You should contact the hotel directly at 1-800-233-1234 or 305-358-1234 to make your reservations and mention that you are part of the USDA/ARS – NP 304 Workshop.

Again, if you did not receive an invitation for the USDA-ARS NP 304 Customer workshop and would like to attend, please email Lee.VanWychen@wssa.net so that I can work with USDA-ARS to get you a formal invitation.

NIWAW 9 Wrap Up

About 140 invasive plant management stakeholders from 31 states attended the 9th annual National Invasive Weed Awareness Week (NIWAW 9) held February 24-29 in Washington DC. This special awareness week, hosted by the Invasive Weeds Awareness Coalition (IWAC), is dedicated to increasing both government and public education and awareness of the issues surrounding invasive weeds. The impact of invasive weeds on the nation’s agriculture, water quality, wildlife and recreation already costs the U.S. an estimated \$34.7 billion annually. The WSSA fully supports the Coalition’s efforts and takes an active role in NIWAW events.

During NIWAW 9, attendees participated in and heard from many of the partners in the Federal Interagency Committee for the Management of Noxious and Exotic Weeds

(FICMNEW) including the EPA, the Army Corps of Engineers, USDA, and the Department of Interior as well as the National Invasive Species Council (NISC).

The theme for NIWAW 9 was “Weeds Won’t Wait: Don’t Hesitate”, which subsequently provided education and awareness of the destructive impacts caused by the following five invasive plants:

1. Beach vitex (*Vitex rotundifolia*)
2. Cheatgrass (*Bromus tectorum*) a.k.a. Downy brome
3. Giant salvinia (*Salvinia molesta*)
4. Russian olive (*Elaeagnus angustifolia*)
5. Yellow star-thistle (*Centaurea solstitialis*)

Two special events were held at the U.S. Botanic Garden (<http://www.usbg.gov>) during NIWAW 9. On February 24, Children’s Fun Day kicked off NIWAW 9 with plenty of engaging, hands-on activities for children and families to help them learn more about invasive weeds. On February 26, a reception hosted by IWAC partners recognized the outstanding achievements and contributions of both individuals and IWAC partners engaged in educating the public about the environmental and economic impacts caused by invasive plants. Dr. David Shaw, WSSA President-Elect served as master of ceremonies for the evening.

INSERT PHOTO “Layne and Shaw”. CAPTION- **“David Shaw looks on as WSSA Member Carlton Layne accepts the IWAC Special Achievement Award for an Organization on behalf of the Aquatic Ecosystems Restoration Foundation (AERF). Carlton is the Executive Director of AERF, which has contributed over \$3 million to the research and education of aquatic invasive plants, supporting graduate students in programs such as invasive tamarisk impacts in the Southwest, improving control of hydrilla in Florida, and phragmites control in the Great Lakes.”**

INERT PHOTO “Beard and Shaw”. CAPTION- **“WSSA member Rita Beard receives the FICMNEW Special Achievement Award. Rita has had a stellar career in invasive plant management, first with the U.S. Forest Service and then with the National Park Service. She has been instrumental in helping bridge the gap between the Society for Range Management (SRM) and the WSSA, which will lead to the 2010 SRM-WSSA Joint Meeting in Denver, CO”**

INERT PHOTO “Vollmer and Shaw”. CAPTION- **“Funny Invasive Weeds? WSSA member Dr. Jennifer Vollmer receives the Joint IWAC-FICMNEW Achievement Award. Dr. Vollmer is an Environmental Resource Specialist with BASF Corporation who has toiled in the area of management of invasive weeds. She currently serves on the Invasive Species Advisory Committee (ISAC) and has served on the Board of Directors of the Aquatic Ecosystem Restoration Foundation, Aquatic Plant Management Society, and Center for Invasive Plant Management.”**

Finally, I would personally like to thank WSSA President Jeff Derr and WSSA President-Elect David Shaw for traveling to Washington DC to participate in the weeks events and orchestrating many successful meetings in conjunction with and outside of the auspices of NIWAW. In addition, NIWAW 9 would not have been possible without the many hours of volunteer time and effort put in by the Invasive Weed Awareness Coalition members. Thank you all very much!

USDA Awards More Than \$4 Million in Weedy and Invasive Species Grants

Agriculture Secretary Ed Schafer announced on March 3, 2008 that USDA is awarding \$4.6 million to 13 universities and research labs to develop ecologically and economically rational strategies for management, control and elimination of weedy and invasive species, which cause more than \$100 billion in losses each year.

The awards are administered by USDA's Cooperative State Research, Education, and Extension Service (CSREES) through the National Research Initiative (NRI) Biology of Weedy and Invasive Species in Agroecosystems competitive grants program. This grant program has awarded more than \$20 million in grants over the past five years.

This year, projects support integrated and basic research projects, equipment purchases, conference symposia and network development. Funded projects include research at Pennsylvania State University to establish and demonstrate effective biological control of the Canada thistle. Research at Oregon State University will develop and implement ecologically-based cropping systems that suppress summer annual weed populations in vegetable row crops. University of Wisconsin researchers will work to predict invasion of exotic species and their impact on tree regeneration and native plant diversity in Wisconsin lowland forests. To view the complete list of recipients, please visit: http://www.csrees.usda.gov/newsroom/news/2008news/03031_invasive_species.html

CSREES' NRI program is the largest peer-reviewed, competitive grants program at USDA. NRI supports research, extension and education grants that address key problems of national, regional and multi-state importance in sustaining all components of agriculture.

Through federal funding and leadership for research, education and extension programs, CSREES focuses on investing in science and solving critical issues impacting people's daily lives and the nation's future. For more information, visit www.csrees.usda.gov

Feds, States Seek to Tackle Cheatgrass – By Colleen Luccioli

NOTE- The following article appeared in the Land Letter on March 13, 2008 and is “Reprinted with permission. Copyright 2008 E&E Publishing, LLC. www.eenews.net”. Cheatgrass has the attention of many Congressional Members and their staff because of its role as a fire vector. Last year's firefighting costs were \$1.34 billion. Adjusted for

inflation, the average annual firefighting cost between 1998 and 2006 was \$994 million nationwide. Congress and the President's Office of Management and Budget would certainly like to find alternatives to spending that much on firefighting. WSSA members can and will lead this battle against cheatgrass. However, due to lack of focused federal research and funding, this weed continues to menace the Western United States. Research on ecology and integrated weed management techniques is essential to address this challenge. Lee Van Wychen

Projects at both the state and federal levels are looking at management measures to curb the spread of cheatgrass. However, no curing elixir appears to be on the horizon.

As the tenacious invasive species outcompetes native vegetation -- creating problems for both ecosystems and wildlife -- and presents an increased risk for higher-intensity wildfires, land managers say efforts to control the weed have become more urgent. Their efforts have demanded increased state and federal resources and have included many research endeavors, some of which have been done in conjunction with universities and interest groups.

Yet, despite years of efforts, "it's a dismal picture," said Paul Spitler, public lands director for the Center for Biological Diversity. "There is no long-term solution that has been shown to be effective."

"There is no magic bullet that would kill cheatgrass and nothing else," noted Joel Tuhy with the Nature Conservancy's Utah field office.

The infestation of cheatgrass has been almost intractable in the Great Basin area, which is considered "ground zero" for cheatgrass, according to Tuhy.

Mike Pellant, the coordinator for the Great Basin Restoration Initiative for the Bureau of Land Management, noted, "We've seen an expansion in the range of cheatgrass." He explained that cheatgrass is found in almost all states, though it is not necessarily a problem east of the Rocky Mountains. It is also found in different types of environments, including lower elevation areas, more arid areas, and forestlands, which triggers concerns about wildfires.

Combating cheatgrass

State and federal managers say they are loading up with an arsenal of techniques to combat the spread of cheatgrass.

"We're looking at multiple projects to control cheatgrass and re-establish native grasses," said David Pyke, a scientist with the U.S. Geological Survey and an associate professor with Oregon State University. "This invasive species impacts millions of acres of land -- most of it is public land, some of it is private and some of it is cropland," he added.

Rory Reynolds, watershed program coordinator for the state of Utah, said efforts in his state, which has more than 20 million acres of cheatgrass, have focused on maintaining a "healthy and diverse" rangeland. The objective to these efforts is to ensure native plants are maintained so that cheatgrass does not have an opportunity to be introduced.

The cycle and tenacity of cheatgrass growth present challenges to maintaining native vegetation. Cheatgrass starts from seed in the fall, and by the time native plants start their springtime growth on Western rangelands, this highly competitive weed has already tied up water and nutrients critical to native plants, explains USGS.

Once a cheatgrass infestation has occurred, "We look at ways to restore the land to prevent cheatgrass from gaining dominance," Reynolds said.

Efforts looking at which plant species could compete with cheatgrass and reduce its tendency to spread have included analyses on the effectiveness of introducing fungi to the soil around cheatgrass.

Pyke discussed recent experiments in using livestock to control cheatgrass. The effort sought to address at what season the grazing would have to occur and how aggressive the grazing would have to be. "The problem is that it would be difficult to get cattle to graze at the level identified as effective in our experiment," Pyke conceded.

In addition, Pyke described an experiment looking at using a combination of prescribed burns and herbicide application. The experiment was performed at two locations in Idaho, and the results are still being analyzed.

But herbicide application raises concerns among conservationists who worry that other problems to the ecosystem will result.

"We worry about the impact herbicide use will have on ecosystems and species," Spittler said. "We're wary about adopting a response that might have other negative implications down the road," he added. "We don't want a solution that is worse than the problem."

'A primary vector for fires'

"Cheatgrass is the major fuel for forest fires in arid areas in the Intermountain West," Pyke said. In addition, many sources agree that cheatgrass leads to higher intensity and bigger fires.

The invasive species, which is native to Europe and Asia and was first introduced to the United States in the late 1800s, has become one of the most widespread weeds in the arid American West. In particular, it now plagues California, Idaho, Nevada, Oregon, Utah and Washington -- states that are all severely bruised by wildfires.

With the increased incidence of landscape-level fires in the West, the importance of controlling cheatgrass has become urgent. "Last summer, 2.7 million acres burned in the Great Basin alone," Pellant pointed out.

"Cheatgrass changes the fire dynamics and makes the fire season become longer. And, cheatgrass forms a continuous fuel bed," Pellant said.

"It is considered a primary vector for fires," Reynolds added.

Not only is cheatgrass problematic because it can help spread wildfires, but once a fire occurs, the area becomes vulnerable to being overtaken by cheatgrass. "If an area is affected by a fire, managers are concerned that that creates a welcoming environment for cheatgrass," said Jaelith Hall-Rivera, wildfire policy analyst with the Wilderness Society.

Impact to species

Cheatgrass and other related invasive weeds also carry significant implications to wildlife, particularly threatened or endangered species.

Rob Mrowka, conservation advocate for the Center for Biological Diversity, discussed two species heavily affected by the spread of cheatgrass, both of which are also considered keystone species.

The desert tortoise, a species classified as threatened under the Endangered Species Act, is impacted by the spread of both cheatgrass and red brome, a related invasive weed, because the two invasives displace native plants that the animal eats. "Cheatgrass has a very negative impact on the population of the desert tortoise," Mrowka said.

And the sage grouse, which is currently being reviewed for listing under ESA, is also affected by the spread of cheatgrass. According to Mrowka, the animal is deprived of its typical habitat -- sage brush canopy -- when cheatgrass outcompetes sage brush.

Lee Van Wychen, Ph.D.
Director of Science Policy
The National and Regional Weed Science Societies
900 2nd St. NE, Suite 205
Washington, DC 20002
Lee.VanWychen@wssa.net
Phone: 202-746-4686
www.wssa.net