



# RUNOFF

CALIFORNIA-NEVADA CHAPTER SWCS – FALL 2012



## PRESIDENT'S MESSAGE - Tibor Horvath

Dear Chapter Members.

A very important year is just around the corner for the CA-NV Chapter of SWCS – we are hosting the SWCS 68th Annual International Conference in Reno, NV on July 21 – 24, 2013. We need your help!

The theme of this conference is really practical: “*Resilient Landscapes, Planning for Flood, Drought & Fire*”, considering the extreme wildfires we had in the West and the 100 year frequency floods on the East Coast recently. I am asking you to consider submitting a presentation or poster about your work, research related to our ever increasing environmental challenges in growing crops and livestock to feed this nation.

The deadline is December 17, 2012 to submit your abstract.

The International Conference Local Arrangement Committee is looking for volunteers to help in audiovisual equipment set up for each presentation, helping in the silent auction, helping in field technical tours and helping in the organization of the social night at the Peppermill Hotel Casino.

If you are willing to put in your time to help our Chapter in this great task, please contact **Wendy Rash** at [Wendy.Rash@ca.usda.gov](mailto:Wendy.Rash@ca.usda.gov), **Tom Esgate** at [twesgate@sbcglobal.net](mailto:twesgate@sbcglobal.net) or **Rob Roy** at [Robert.Roy@ca.usda.gov](mailto:Robert.Roy@ca.usda.gov) and make your generous offer to help in any of the above mentioned activities.

I wish all of you a peaceful winter Holiday and a Happy New Year!



## RESILIENT LANDSCAPES

Planning for Flood, Drought & Fire

68th International Annual Conference

Reno, NV July 21-24, 2013

[www.swcs.org/13AC](http://www.swcs.org/13AC)



## GOOD MORNING WEST REGION SWCS'ERS

- **Mark Steffek**, SWCS West Region Director/Treasurer

The 2013 International Annual Conference is coming up in July at the Peppermill in Reno, NV. Please use the information in this newsletter to promote the Conference. It is not often that the Conference is held in the West.

Please inform your friends and partners who have an interest in conserving and protecting our natural resources. The Invasive Plants Workshop will be a great opportunity to learn more about invasive species management and provide a venue to share thoughts and ideas with others.

The California-Nevada Chapter is underway with planning local activities for the Conference including tours, silent auction, and the Berg Fellows Forum.

If you would like to volunteer to assist the CA-NV Chapter with their planning and volunteering with them during the conference, contact one of the following:

Tom Esgate

[twesgate@sbcglobal.net](mailto:twesgate@sbcglobal.net)

530-310-0146

Cathy Dirden

[mcdirden@hotmail.com](mailto:mcdirden@hotmail.com)

530-530-260-5578

Any and all help will be appreciated.

Chapter members and any friends planning to attend the Conference should contact their employers early to request travel support for the excellent technical training opportunity that this SWCS Conference will provide.

If you know any of your colleagues who might be interested in presenting a paper or workshop, remind them the deadline for submitting a presentation or proposal is December 17, 2012. Complete instructions are on the conference website at [www.swcs.org/13ac](http://www.swcs.org/13ac)

**REMINDER:** SWCS Award/Scholarship nominations are due sometime in February. This is an early warning for you to identify a worthy individual or group and start gathering supporting documentation for the award nomination proposal.

**DONATE:** The SWCS year end fundraising campaign is underway. You should have received a SWCS annual achievement report along with a donation form. Please read the report. If you think that what SWCS has done to advance soil and water conservation in the last year was worthwhile, please consider showing that satisfaction with a financial

contribution. If you do not think the Society has been involved in beneficial and successful activities, then see the next item.

**QUESTION:** Are you, or do you know anyone, who is interested in serving on the SWCS Board of Directors with me? There is one at-large vacancy available.

Contact **Don Wysocki**, SWCS Nominations Committee Chairman, [dwysocki@oregonstae.edu](mailto:dwysocki@oregonstae.edu), 541-969-2014. It would be so cool to have two SWCS Board members from the West Region to make a difference in soil and water conservation.

Check out the SWCS website to learn more about the duties of the At-large Director. [www.swcs.org](http://www.swcs.org)

Have a great Holiday. I hope to see you in Reno next summer. You can reach me at [msteffek@ca.usda.gov](mailto:msteffek@ca.usda.gov)

## TWO NEW NRCS SOIL HEALTH VIDEOS

The USDA Natural Resources Conservation Service released two new videos in October as part of their Soil Health Awareness and Education effort.

These videos, titled

“Have you discovered the cover?” and

“How should healthy soils look?”

are short Soil Health Lessons in a Minute” video demonstrations featuring NRCS’ Ray “The Soil Guy” Archuleta and Jon Stika with NRCS in North Dakota

Please click on the link below to find them and others at the NRCS Soil Health Theater.

<http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/health/?cid=stelprdb1048858>



Rice Residue Management with a rice straw roller, near Winters CA. Photo - Phil Hogan, District Conservationist, Woodland

## NEW CA-NV CHAPTER SWCS MEMBERS

We extend a **GREAT BIG WELCOME** to the following eight members who recently joined or rejoined the SWCS and our California-Nevada Chapter SWCS:

<b>Michelle Du</b>	-	Hacienda Hts
<b>Thomas Gamette</b>	-	Folsom
<b>Diane Holcomb</b>	-	Davis
<b>Garrett Kooyers</b>	-	Reno, NV
<b>Eric Larson</b>	-	Sebastopol
<b>Sonya Miller</b>	-	Galt
<b>Daniel Mountjoy</b>	-	Watsonville
<b>Teri Nehls</b>	-	Visalia

We have 120 members as of November 28, 2012.

### INVASIVE PLANTS WORKSHOP:

#### Managing Controversy, Creativity, and Conservation – in Reno on July 21, 2013

Join us in July for a one-day special workshop entitled “Invasive Plants: Managing Controversy, Creativity, and Conservation.” The workshop will focus on the challenges and issues associated with invasive plant species.

In all parts of the world, invasive plants are establishing in natural areas and wild lands and are changing many of the cycles (e.g., fire, hydrological) and affecting many of the processes (e.g., succession, nutrient turnover) that once supported biologically diverse communities.

There are many unknowns on the long-term impacts of invasive plant species and this has spurred numerous debates related to management approaches and even the necessity of human intervention. Alternatively, the short-term effects of invasive plants can be seen at small and large scales and has resulted in much thought by researchers, land managers, and policymakers on how to develop and find innovative/alternative approaches to address what should be done and how best to do it.

Ultimately, a price will be paid if dialogue does not continue and new ways are not developed to preserve our current landscapes and at the same time allow for dynamic change in these systems, which includes invasive plant species.

This workshop is taking place as a part of the 2013 SWCS International Annual Conference in Reno, NV. The intent is to create an environment with a diverse audience that through discussion and presentation will continue to advance what is best for the environment and its constituents in relation to invasive plants species both now and into the future.

**Want to contribute?** Workshop organizers are seeking oral and poster presentations to complement the invited plenary speakers. Deadline to submit is December 17, 2012.

For detailed instructions on submitting an abstract in Track 4: Invasive Plant Species go to [www.swcs.org/13AC](http://www.swcs.org/13AC) and download the Call for Presentations and Symposia Sessions.

**Questions? Contact workshop organizer Steve Young at [steve.young@unl.edu](mailto:steve.young@unl.edu).**

### PRESIDENT-ELECT’S MESSAGE - Rob Roy

I would like to wish all the members of the California Nevada Chapter of SWCS a very happy new year. What a wide wonderful world of conservation we are all a part of and what a year we have to look forward to. In 2013, our Chapter will be hosting the 68<sup>th</sup> International Annual Conference in Reno, Nevada.

The Biggest Little City in the World will be home to a gathering of an organization that has, for almost 70 years now, served as an advocate for conservation professionals and for science-based conservation practices, programs, and policy.

The conference furthers our mission to foster the science and art of natural resource conservation. Let me share the words of Dr. Charles E. Kellogg from 1957: *“Two hundred generations of men and women have given us what is in our minds about soils and soil fertility – the arts and skills and the organized body of knowledge that we now call Science”*. Dr. Kellogg was the third Chief of USDA’s Bureau of Chemistry and Soils and was instrumental in shaping the National Cooperative Soil Survey Program that we know today.

It is incumbent upon us, the present generation of conservationists, both public and private, to continue developing that body of knowledge; to promote the science of natural resource conservation.

If these words resonate with you, please consider volunteering to help with the coming conference. If you are not a member of SWCS, please consider joining.

NRCS employees, did you know you can join the Society and pay your dues in 26 installments through the USDA payroll deduction service? Check it out on the SWCS website – in the search function, enter “USDA employees” for instructions on how to do this.

Let me close with one of my favorite statements from Dr. Kellogg, again from 1957: *“What we seek is not some kind of mythical natural balance between farmers and the soils they cultivate, but a cultural balance in which we use with understanding and precision all the tools of modern science, engineering, and economics”*.

Coming to an international conference near you, the latest reports on all the tools of modern science, engineering, and economics – be there!

## **CONSERVATION INVESTMENT ON CALIFORNIA FARMS AND RANCHES REACHES \$250 MILLION IN FY-2012**

California's air, water, wetlands and wildlife habitat all received a significant boost in Fiscal Year 2012 as private landowners joined with USDA's Natural Resources Conservation Service (NRCS) to voluntarily invest approximately a quarter billion dollars in protecting and restoring natural resources. The federal portion of the investment, \$154.2 million, came from a mix of financial incentive and easement programs funded by the conservation programs of the Farm Bill.

"Despite the difficult economic times, California's farmers, ranchers, non-industrial private forest owners, and conservation partners prioritized conservation in their 2012 operating plans. This commitment made it possible to successfully add more than 7,000 conservation practices across the California landscape and enhance the environment that we all share," said Jeff Burwell, acting State Conservationist for NRCS.

Burwell pointed out that most of the Farm Bill programs require a match by the landowner that is typically about half the cost of applying the conservation practice.

Additionally two of the conservation programs, the Agricultural Water Enhancement Program (AWEP) and the Cooperative Conservation Partnership Initiative (CCPI), depend upon partners to partially plan and administer them. California leads the Nation in the number of AWEP projects investing in water conservation and water quality on private lands.

One of the largest partnerships was between NRCS and California's dairy industry. This partnership worked with producers to invest \$30 million in waste management plans and structural practices designed to help dairymen continue their efforts to comply with increasingly stringent California state water quality regulations.

To help achieve California's clean air goals, farmers joined with the NRCS by investing over \$41 million – half of which was contributed by the participating farmers themselves in FY-2012 to improve air quality.

Significant long-term emission reductions are being achieved from destroying and replacing over 450 old, high-polluting diesel engines powering off-road farm vehicles with 366 new, more efficient systems that emit up to 98 percent fewer pollutants.

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment

Waterfowl and wildlife habitat in California also benefited in FY-2012 from work done by NRCS, Resource Conservation Districts, and several other partners who provided financial resources as well as biological and technical expertise.

A \$6.7 million Waterbird Habitat Enhancement Project in six Sacramento Valley counties proved extremely successful with 120 rice farmers agreeing to habitat enhancements. The farmers are making habitat improvements such as flooding their fields to variable depths late into the winter when it is especially important to certain migrating birds. Declining species such as sage grouse and the southwest willow flycatcher will also benefit from habitat improvements funded by NRCS in FY-2012.

NRCS continued its historic water conservation work, helping farmers to improve irrigation and management systems. For the second year, NRCS also partnered with the Bureau of Reclamation (Reclamation) to conserve irrigation water by matching improvements in water delivery infrastructure with improvements in water management on the farm. The five projects are saving 17,646 acre feet of water per year at the delivery point, plus an estimated 25 percent increased efficiency from improvements made on-farm.

The joint NRCS/Reclamation water conservation program and the Sacramento Valley Waterbird Habitat Enhancement Project were funded by the NRCS National Bay Delta Initiative.

Three easement programs provided \$41.5 million to landowners in FY-2012 who voluntarily elected to protect important landscapes such as farmland, grazing land, and wetlands. The easements include the following: six easements that permanently protect six farms from development; one permanent easement and another 20-year rental agreement to protect grazing lands; and funds to establish 35 new wetlands easements and to do restoration on 93 new and existing wetland easements.

NRCS is the conservation branch of the U.S. Department of Agriculture and provides technical and financial assistance to agricultural producers interested in voluntarily improving environmental functioning on their land for on-site and off-site benefits.

Conservation plans are developed by conservationists and landowners who may apply for financial assistance to execute their plans. While, the federal Farm Bill has not been extended at this time, NRCS offices continue to provide local planning and technical assistance.

(This article was based on a USDA NRCS news release.)

## 2013 INTERNATIONAL CONFERENCE



### MARK YOUR CALENDARS

**Come and Share Your Knowledge to Advance  
The Future of Our Soil and Water Resources**

**in RENO, NV for the  
68th Annual International SWCS Conference**

**July 21-24, 2013 at the PEPPERMILL  
Hosted by the  
California-Nevada Chapter  
Soil and Water Conservation Society**

**RENO**  
**2013**  
◀▶

### **Schedule in Brief**

**Sunday, July 21:** Society meetings, House of Delegates, Chapter Leader training, Half-day workshops, Fellows Forum, Welcome Reception

**Monday, July 22:** Keynote Plenary, Symposia Sessions and Educational Presentations, Silent Auction, Exhibit Hall & Poster Presenter Reception, Movie Night

**Tuesday, July 23:** Plenary Session, Symposia Sessions and Educational Presentations

**Wednesday, July 24:** Conservation Tours

### **Conference Tracts**

The program committee has chosen the following five special areas of emphasis (tracks) for the Symposia Sessions and Educational Presentations.

#### **1) Resilient Landscapes:**

Showing how land managing agencies and conservationists are coming together in their efforts to mitigate the effects of catastrophic landscape altering events such as flood, drought, and fire.

#### **2) Adaptation and Mitigation Planning for Drought**

The 2012 drought, one of the worst of the last 80 years, covered more than 75% of the contiguous United States and provides an indication that the conditions that spawned the dust bowl in the 1930's may commonly recur and become the new norm for this century.

#### **3) Rangeland Conservation and Grazinglands CEAP**

The Soil and Water Conservation Society has undertaken a cooperative project with the Agricultural Research Service and the Natural Resources Conservation Service to document the status of knowledge regarding the effect of conservation practices applied to grazing lands across the United States.

#### **4) Invasive Plant Species**

“Invasive Plants: Managing Controversy, Creativity, and Conservation”, will focus on the challenges and issue associated with invasive plant species on how to develop and find innovative/alternative approaches to preserve our current landscapes and at the same time allow for dynamic change in these systems,.

#### **5) Water Resources Research, Education, and Outreach (NIFA Land Grant/Sea Grant 406 and NRI)**

SWCS is pleased to be collaborating with USDA – NIFA pursuing a shared goal of highlighting quality water research, outreach and education to an audience of environmental and agricultural professionals, academics, and educators. Investigators and project managers will present USDA sponsored National Research Initiative and 406 projects in a special NIFA symposium.

## CONSERVATION AGRICULTURE SYSTEMS INNOVATION (CASI) VIDEOS

Here is a link to the following six documentary videos on conservation tillage in California:

<http://ucanr.edu/documentary>

### [Introduction to Conservation Agriculture Cropping Systems](#)

The first video in the documentary series defines conservation agriculture and outlines its increasing credibility in the global context.

### [The Value of Residues in Conservation Agriculture Systems](#)

California farmers have tended to adopt “clean cultivation” systems, but research has shown that maintenance of residues from the previous crop or a winter cover crop helps improve soil and reduces evaporation from the surface.

### [Conservation Agriculture in Tomato Production Systems](#)

These systems cut production costs, reduce dust emissions and store more carbon in the soil.

### [Conservation agriculture in dairy silage production systems](#)

Three dairy farmers committed to conservation agriculture systems in their silage production share their secrets and success.

### [Minimum tillage systems](#)

This video features examples of a number of reduced pass or ‘pass combining’ tillage systems that have been developed during the past decade.

### [Merging conservation tillage with overhead irrigation](#)

Overhead irrigation systems, such as center pivots, are particularly useful when coupled with conservation tillage.

These videos represent the efforts of the Conservation Tillage and Cropping Systems Workgroup. Established in 1998, the Conservation Cropping Systems Workgroup is a diverse group of more than 1,500 farmer, University of California, California State University, USDA - NRCS, Resource Conservation District, public agency, private sector and environmental group members that have come together to promote conservation cropping systems in California.

The vision of the Conservation Cropping Systems Workgroup is to achieve resource-preserving and economically viable conservation agriculture systems in California.

These systems contribute to greater production efficiencies, reduce negative environmental impacts, ease labor requirements, and result in more vibrant farm economies.

Goals of the Conservation Cropping Systems Workgroup are:

1. To increase the sustained adoption of conservation cropping systems to more than 50% of cropping acreage by the year 2028
2. To develop and deliver information on the economic and environmental benefits of conservation cropping systems
3. To partner with national and international conservation organizations and serve as a clearing house for information to promote conservation cropping systems
4. To increase funding for conservation cropping systems research, education, and adoption in California.

Leadership has been provided by **Jeff Mitchell**, UC Davis vegetable crops specialist stationed at the UC Kearney Research and Extension Center in Parlier. You can reach him at (559) 303-9689 or by email [mitchell@uckac.edu](mailto:mitchell@uckac.edu)

And by **Ron Harben**, Air Quality Planner and Coordinator for the California Association of Resource Conservation Districts stationed at Templeton. You can reach him at (559) 824-1356 or by email [ron.harben@ca.nacdn.net](mailto:ron.harben@ca.nacdn.net)

## 2013 CHAPTER SCHOLARSHIP

The Chapter will award a \$1000.00 scholarship before the Fall Semester/Quarter of the 2013-2014 school-year.

Applicants must (1) have successfully completed two years of study at an accredited college, (2) be enrolled in an undergraduate curriculum related to soil and water resources, and (3) have a cumulative grade point average of 2.5 or better on a 4.0 scale.

[The Scholarship Application deadline is January 31, 2013.](#)

Spread the word to family and friends who may be eligible. If they cannot find the details at their college or university, they can go our website and click on “SCHOLARSHIPS”

[www.caswcs.org](http://www.caswcs.org)

The Chapter's goal is to encourage California undergraduate students interested in soil and water conservation to obtain technical expertise and to pursue careers in soil and water resources.

Nine students submitted applications last January for the 2012 scholarship award.

## **CHAPTER FALL TECHNICAL TOUR HELD**

The California- Nevada Chapter of SWCS partnered with the Conservation Agriculture Systems Innovation (CASI) Workgroup for their Third Annual Twilight Precision Irrigation & Conservation Tillage Barbeque & Field Tour on Sept 13<sup>th</sup> at the University of California West Side Research and Extension Center in Five Points (Fresno County).

The meeting covered overhead irrigation and conservation tillage research and demonstration field tour that highlighted recent advances in coupling emerging water, crop and soil management technologies that may help Central Valley farmers with more efficient, compatible and sustainable practices.

Overhead irrigation systems, first patented in 1952 and very widely used on irrigated lands around the world, are now being used to irrigate a variety of crops, soils and field sizes in an efficient, automatic, and highly unifying manner in the Central Valley of California.

UC researchers, farmers, and private sector experts provided practical information on how these systems work, what their costs are, and how they've been used successfully for various crops. The field tour featured two farmers who are successfully using pivots on large portions of their farmland.

Information was also presented on how innovative soil management practices including no-tillage and cover cropping can be used in San Joaquin Valley crop rotations to improve soil quality.

The meeting emphasized that agriculture's most vital concern today is irrigation. Developing production systems that get more out of our valuable water resources while also preserving soil, air and groundwater quality over time are challenges faced by all producers.

This Fall Technical Tour was approved by the Chapter Executive Council at their August teleconference meeting as an opportunity to improve member's technical skills.

## **WATER-QUALITY CREDITS/DOLLARS TO BE EARNED BY FARMERS**

By Rich Keller, Editor, Ag Professional, August 14, 2012

In a first-of-its-kind trading plan involving three states of the Ohio River Basin, an interstate water quality pilot trading program has been initiated.

Under the trading plan, farmers in Ohio, Indiana and Kentucky reducing their nutrient run-off using conservation best practices can be credited for nutrient run-off reduction. And emitters of similar nutrients such as

power plants and sewage treatment plants can purchase the nutrient reduction credits and not have to invest in hugely expensive changes to their operations in order to meet lower pollution standards/environmental permit requirements.

This water quality exchange program is similar to the carbon exchange programs that have existed for farmers to receive credit for no-till farming to trap carbon so that industries can have a larger carbon footprint in their operations.

The water-quality program, as with the carbon trading, will be handled in a market-based approach. The three states initially participating are the core states of the Ohio River Basin drainage area. Water quality exchanges have not been extremely common and those that have been enacted have been a state or less per program.

The three-state trading is being termed a pilot program with trades beginning this year and proceeding through 2015 under the pilot program descriptor. Apparently, the program is also being termed a pilot as research into how to handle all aspects of the trading, appropriate actions for credits and other details are worked out while the program proceeds. The organizers promise in their announcement that water quality trading will be simpler than what farmers have found to be the case with other incentive payment programs "because of the valuable input from agriculture in the trading plan."

There is a wide coalition of companies, associations and government agencies involved to assure all the legal aspects and protocol for expanding this program to the whole Ohio River Basin can be worked out.

"The Electric Power Research Institute (EPRI) is leading the research effort with support from American Farmland Trust (AFT); Hunton & Williams LLP; Kieser & Associates, LLD; and the University of California at Santa Barbara.

From this planned pilot beginning, nutrient reductions have been calculated to total approximately 45,000 pounds of nitrogen and 15,000 pounds of phosphorus annually.

Apparently the kick-off for pilot trades are set as it was announced that trades are expected to take place in 16 counties. This should involve 30 farmers implementing agricultural "conservation best management practices" on up to 20,000 acres. The water quality credits from these operations are expected to be purchased by an initial three power plants.

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**Chapter President's Message**

West Region Director's Messages

**New Soil Health Videos**

**New Members**

Invasive Plants Workshops

**President-Elect's Message**

**2012 Conservation Investments in CA**

Six CASI Videos

**Water Quality Credits/Dollars**

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**RUNOFF** is the official California-Nevada  
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Please submit articles via email to the Editor.  
RUNOFF reserves the right to edit all submissions.

**YOUR PHOTOS ARE WANTED  
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[www.caswcs.org](http://www.caswcs.org)

**PLEASE SUBMIT PHOTOS, NEWS  
ITEMS, AND FEATURE ARTICLES  
TO THE EDITOR FOR THE WINTER  
ISSUE OF RUNOFF BY  
FEBRUARY 1**

EXPECT NEXT ISSUE ON MARCH 1  
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**We cannot depend on windshield  
surveys and office planning to carry out  
a job of the complexity and magnitude  
of safeguarding our farmland and  
controlling floods.**

**Hugh Hammond Bennett**

Raleigh, North Carolina, June 1959