

**California Department of Food and Agriculture  
ENVIRONMENTAL FARMING ACT SCIENCE ADVISORY PANEL**

**MEETING AGENDA**

July 1, 2013  
1 pm to 4 PM

California Department of Food and Agriculture  
Room 133  
1220 N Street  
Sacramento, CA 95833  
(916) 654-0433

**Call in information:  
Please call 1-877-238-3859  
Participant passcode - 3964856#**

Jeff Dlott, PhD, Member and Chair

Mark Nechodom, PhD, Member

Don Cameron, Member

Mike Tollstrup, Member

Ann Thrupp, PhD, Member

Luana Kiger, MSc, Subject Matter Expert

Louise Jackson, PhD, Subject Matter Expert

Amrith Gunasekara, PhD, CDFA Liaison

- |  |                                   |
|--|-----------------------------------|
| 1. Introductions (10 minutes)                                    | Jeff Dlott                        |
| 2. Updates (10 minutes)  | Amrith Gunasekara                 |
| a. NRCS CIG Proposal   |                                   |
| b. Ecosystem Services Database                                   |                                   |
| 3. Conservation Pivot – Department of Conservation (30 minutes)  | John Lowrie<br>Assistant Director |
| 4. Reward/Recognition System for Ecosystem Services (60 minutes) | Jeff Dlott                        |
| a. Examples of Existing Systems                                  |                                   |
| b. Discussion of a Potential EFA SAP System                      |                                   |
| 5. Future Direction for EFA SAP (60 minutes)                     | Jeff Dlott                        |
| 6. Next meeting and agenda topics (10 minutes)                   | Jeff Dlott                        |

All meeting facilities are accessible to persons with disabilities. If you require reasonable accommodation as defined by the American with Disabilities Act, or if you have questions regarding this public meeting, please contact Amrith Gunasekara at (916) 654-0433. More information at: <http://cdfa.ca.gov/Meetings.html> and [http://www.cdfa.ca.gov/EnvironmentalStewardship/Meetings\\_Presentations.html](http://www.cdfa.ca.gov/EnvironmentalStewardship/Meetings_Presentations.html)

## **2) Project executive summary**

This project will qualitatively and quantitatively examine the many Ecosystem Service benefits of bundling together nitrogen fertilizer budget worksheets (NFBW) and other conservation management practices (e.g., hedgerows) on farms of different sizes in California's agriculturally intensive San Joaquin Valley. Ecosystem Services have been defined by the California Department of Food and Agriculture (CDFA) Environmental Farming Act Science Advisory Panel as "the multiple benefits we obtain from farming". The multiple Ecosystem Service benefits from nested or multiple conservation management practices have not been qualitatively evaluated nor quantified in California. This project will explore the benefits of using NFBW as an in-season grower tool to effectively capture the multiple benefits provided by nitrogen management and hedgerows.

The project methodology will involve the following;

- analyzing existing NFBW templates for their potential to capture the multiple Ecosystem Services afforded by bundling conservation practices when supplemented with nitrogen management;
- designing a NFBW to more effectively capture the multiple benefits of nitrogen management and to also quantify the effects of multiple conservation practices;
- implementing NFBW with approximately 20 growers in the San Joaquin Valley, California, to monitor, capture, and document existing conservation practices such as cover cropping;
- qualitatively assessing the benefits from the multiple "bundled" management practices;
- quantitatively assessing the benefits from the multiple "bundled" management practices;
- evaluating the economic benefits of the multiple Ecosystem Services provided by working lands.

In addition to progress reports and other funding agency requirements, the deliverables of this project include qualitative and quantitative information on the Ecosystem Services delivered by using multiple management practices on a farm or single field, demonstrating the applicability of NFBW as an important in-season tool for plant nutrient needs, using NFBW to collect information on other conservation management practices, and validating the information collected in the NFBW using the nitrogen tracking tool (NTT) to develop nitrogen trading environmental markets.

This two-year project has a total budget of \$1,062,202. More than half (53%) of the total budget is provided by in-kind support and CDFA Fertilizer Research and Education Program (FREP) cash-match contributions. The in-kind contribution from project collaborators and CDFA is \$308,306 for the duration of the project. The CDFA FREP cash-match total is \$254,026 for the duration of the project. Financial assistance of \$499,870 is requested from the NRCS Conservation Innovation Grant program.

Several collaborators will assist CDFA in the implementation and completion of this project. They include California Association of Resource Conservation Districts, California Farm Bureau Federation, Almond Board of California, the Central Valley Regional Water Quality Control Board, University of California Agricultural Extension Services and the Institute for Water Resources, Xerces Society, Western Growers, Earth Economics, and California Audubon Society.

# ENVIRONMENTAL FARMING ACT SCIENCE ADVISORY PANEL



July 1, 2013  
CDFA  
Sacramento, CA

# AGENDA 2. UPDATES

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1. NRCS CIG Proposal (Handout – Exec Summary)
  - Submitted on 5/10/2013 (deadline 5/13/2013)
  - Anticipated announcement date is by August 1, 2013
2. Ecosystem Services Database
  - CDFA IT has developed electronic web-based database
  - Expected to be released by June 30, 2013 (delayed)
    - Grower letters and screenshots for feedback
    - Correct several data translation errors
    - Two week time period for grower response
    - Expected to be released mid to late July
    - Addresses Section 566 (b) of F&C

## ECOSYSTEM SERVICES DATABASE

Ecosystem Services in agriculture is defined as "the multiple benefits we gain from farming and ranching including crop and livestock production." This database brings together ecosystem service information from grower websites to easily show and communicate the many social and environmental benefits offered by growers in California. The database can be searched by key word and categories as well as through the interactive map below.

Keyword(s)


Type of Crop 

View All

County 

View All


Ecosystem Services Provided



☐

Wildlife Habitats


[More Info >](#)



☐

Nutrient Cycling


[More Info >](#)



☐

Food


[More Info >](#)



☐

Fiber


[More Info >](#)



☐

Fuel


[More Info >](#)



☐

Recreation and Cultural


[More Info >](#)



☐

Soil Structure Formation and Fertility


[More Info >](#)



☐

Biodiversity Conservation


[More Info >](#)



☐

Water Cycling


[More Info >](#)



☐

Atmospheric Gas and Climate Regulation


[More Info >](#)



☐

Water Quality


[More Info >](#)



☐

Pest Control

[More Info >](#)




☐

Pollination Services

[More Info >](#)

[Browse services by county >](#)



## ECOSYSTEM SERVICES LISTINGS BY COUNTY

CHOOSE A COUNTY TO BEGIN

Alameda  
Alpine  
Amador  
Butte  
Calaveras  
Colusa  
Contra Costa  
Del Norte  
El Dorado  
Fresno  
Glenn  
Humboldt  
Imperial  
Inyo

Kern  
**Kings**  
Lake  
Lassen  
Los Angeles  
Madera  
Marin  
Mariposa  
Mendocino  
Merced  
Modoc  
Mono  
Monterey  
Napa  
Nevada  
Orange  
Placer  
Plumas  
Riverside  
Sacramento

San Benito  
San Bernardino  
San Diego  
San Francisco  
San Joaquin  
San Luis Obispo  
San Mateo  
Santa Barbara  
Santa Clara  
Santa Cruz  
Shasta  
Sierra  
Siskiyou  
Solano  
Sonoma  
Stanislaus  
Sutter  
Tehama  
Trinity  
Tulare  
Tuolumne  
Ventura  
Yolo  
Yuba





## ABC Farms

### Location

West Sacramento

### Crop Type

Field Crops

### Crops

Garlic

### Size

10

### County

Yolo

### Zip Code

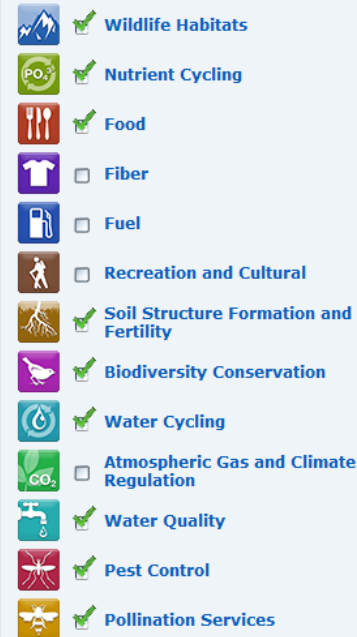
95691

### Services Description

This farm is focused on maintaining soil quality and fertility by practicing crop rotation and cover cropping in an effort to put nutrients back into the soil, attract beneficial insects, and increase organic matter. This farm also employs the use of buffer zones and open space to provide wildlife habitat and encourage native plant diversity. The farm also sources compost and fertilizers locally to use on the property.

### Website

<http://abcfarms.com/>





## Section 566 (b)

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566. (a) The department shall establish and oversee an environmental farming program. The program shall provide incentives to farmers whose practices promote the well-being of ecosystems, air quality, and wildlife and their habitat.

(b) The department may assist in the compilation of scientific evidence from public and private sources, including the scientific community, industry, conservation organizations, and federal, state, and local agencies identifying the net environmental impacts that agriculture creates for the environment. The department shall serve as the depository of this information and provide it to federal, state, and local governments, as needed.

(c) The department shall conduct the activities specified in this article with existing resources, to the extent they are available.

# AGENDA 4. REWARD/RECOGNITION

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(c) The department shall conduct the activities specified in this article with existing resources, to the extent they are available.

# AGENDA 4. REWARD/RECOGNITION

## EXAMPLES: Leopold Conservation Awards

Highlights  
\$10,000 Award

Highlights voluntary efforts

Inspires others

"The Leopold Conservation Award program offers corporate sponsors or individual investors an opportunity to align themselves with outstanding agricultural families, while helping to ensure that these landowner conservationists receive the recognition they deserve."



**The Leopold Conservation Award**

Aldo Leopold, whose writings and land ownership inspire Sand County Foundation's devotion to the cause of private landowner conservation leadership, wrote that the landscape of any farm is the owner's portrait of himself. The Leopold Conservation Awards honor landowners who work ceaselessly to paint beautiful landscapes across our nation.

The Leopold Conservation Awards recognize landowners actively committed to a land ethic. Working with prominent state conservation partners, Sand County Foundation presents the award, which consists of \$10,000 and a Leopold crystal, in settings that showcase the landowners' achievements among their peers.

The Leopold Conservation Award is a productive investment in private lands conservation. The \$10,000 that accompanies each award would not go very far as a direct investment in a conservation project. However, by using it to highlight, nationally, the outstanding stewardship being practiced by exemplary landowners, the award program indirectly leverages hundreds of thousands of dollars in improvements to natural resources by a growing array of private landowners who make measurable, lasting enhancements to the land, water, and wildlife in their care.

The Leopold Conservation Award program has several positive outcomes. First, it recognizes and celebrates extraordinary achievement in voluntary conservation by private landowners. Second, it inspires countless other landowners by example. Third, it provides a prominent platform by which agricultural community leaders

**LEOPOLD CONSERVATION AWARD**  
PRESENTED BY SAND COUNTY FOUNDATION

**Generations on the Land**  
JOE NICK PATONKI  
A CONSERVATION LEGACY

*The recently published Generations on the Land celebrates the conservation leadership of eight recipients of the Leopold Conservation Award. The book captures the sacrifices and rewards these outstanding agricultural families experience as they work to keep their operations economically and environmentally sustainable. [Click here to purchase.](#)*

# AGENDA 4. REWARD/RECOGNITION

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## EXAMPLES: Leopold Conservation Awards

Question: Can EFA SAP  
Develop criteria using QAM?

### *Leopold Conservation Award Criteria*



*Although the specifics within each category may vary slightly from state to state, these are the base criteria that are used by an independent panel of agricultural professionals in each state to evaluate each application for the Leopold Conservation Award.*

#### **Responsible Management**

The award seeks landowners who are knowledgeable of the natural resources that are in their care and manage them with long-term sustainability in mind. Their knowledge of current conditions influence management decisions.

#### **Sustainable Revenue**

The award seeks landowners who have a strong, personal self-interest in practicing good stewardship, either from a deep, ethical conviction or because they derive a majority of their income from the natural resources they manage.

#### **Leadership**

The award seeks landowners who are highly involved in their communities.

#### **Overall Land Health**

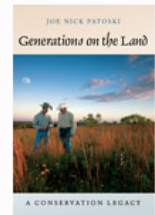
The award seeks landowners whose land has benefited from current management, either due to active conservation improvements to the land or to current land use resulting in the conservation of existing resources.

#### **Innovation**

The award seeks landowners who are willing to try new things, learn from their successes and failures, and adapt their management techniques as a consequence.

#### **Outreach**

The award seeks landowners who use their land as a teaching tool to share good management strategies with others, such as management technique demonstration, hunter safety and education, media and/or community tours, conservation and restoration activity, and/or scientific endeavor.



*The recently published Generations on the Land celebrates the conservation leadership of eight recipients of the Leopold Conservation Award. The book captures the sacrifices and rewards these outstanding agricultural families experience as they work to keep their operations economically and environmentally sustainable.*  
**[Click here to purchase.](#)**

# AGENDA 4. REWARD/RECOGNITION

## EXAMPLES: GEELA

### 2012 Winners (some):

- EDF - Fisheries Fund
- SF Giants AT&T Park
- Joseph Gallo Farms



### ➔ 2012 Governor's Environmental and Economic Leadership Awards

The 2012 Governor's Environmental and Economic Leadership Awards Ceremony took place on January 22, 2013. Congratulations to this year's GEELA Winners!

- [2012 Award Ceremony Program \(PDF\)](#)
- [Governor Brown Announces 2012 Top Environmental Leadership Awards \(PDF\)](#)

#### Who May Apply/Eligibility

The awards will be presented for voluntary achievements culminated in 2011. Competition is open to all California residents, businesses, non-profit organizations, professional and trade associations, communities, state and local government entities, tribes, and federal agencies operating in California. Projects are deemed ineligible if they are the result of mitigation, litigation, or required by legislation. Those who applied previously are welcome to apply again.

#### Award Categories

[Children's Environmental Education](#) | [Climate Change](#) | [Comprehensive Land Use Planning](#) | [Ecosystem And Watershed Stewardship](#) | [Enhanced Environmental and Economic Leadership](#) | [Environmental and Economic Partnerships](#) | [Environmental Justice](#) | [Green Chemistry \(Safer Consumer Products\)](#) | [Sustainable Communities](#) | [Technological and Market Innovation](#) | [Zero-Emission Vehicle](#) | [Waste Reduction](#)

- **Children's Environmental Education**  
Unique and exemplary educational programs that 1) are supported with written, academic standards-aligned curricula and 2) raise children's awareness of, and involvement in, environmental issues. Applicants must submit standards-aligned curriculum materials and/or delineate web-based, standards-aligned curriculum materials.
- **Climate Change**  
Innovative and forward thinking projects/programs that 1) reduce/mitigate greenhouse gas emissions and/or adapt to the adverse effects of climate change on public health and our vast natural resources; and 2) provide economic and business-related benefits. Preference will be given to recipients of the [CoolCalifornia.org Small Business Award](#).

#### Governor's Awards Program Links

- [Governor's Award GEELA](#)
- [Past Governor's Awards](#)
- [CalEPA Awards Home](#)



# AGENDA 4. REWARD/RECOGNITION

## EXAMPLES: Integrated Pest Management Innovator Award

The screenshot shows the California Department of Pesticide Regulation (CDPR) website. The browser address bar displays [www.cdpr.ca.gov/docs/pestmgmt/ipminov/innovatr.htm](http://www.cdpr.ca.gov/docs/pestmgmt/ipminov/innovatr.htm). The website header includes the CDPR logo and navigation links such as Home, Health & Safety, Enforcement, Pest Management, Licensing, Registration, Monitoring, and Laws/Regulations. A green banner below the header lists various topics including Pest problems, Pesticide use report, Grants, Innovator awards, Schools, Child care, and Projects. The main content area is titled "IPM Innovator Awards" and includes links to "Back to Pest Management" and "Back to Pest Management Analysis and Planning Program". A paragraph describes the annual IPM Innovator awards program, which honors agricultural and nonagricultural California groups, organizations, or companies for their innovative approaches to IPM and reduced-risk pest management. A section titled "Since the inception of the IPM Innovator Award program in 1994, DPR has presented more than 100 IPM Innovator awards to honor California organizations that emphasize pest prevention, favor least-hazardous pest management, and share their successful strategies with others." lists several links: "About IPM Innovator Awards, PDF (157 kb) overview", "IPM Innovator Award Winners (1994 to most recent)", "2012 IPM Innovator Award Winners", "Example of past award recipient (2005)", "Nominate a group for an IPM Innovator award.", and "IPM Innovator slideshow". A video player at the bottom shows a man standing in a field, with the title "IPM Innovators: Dixon Ridge Farms and Gallo's S...".

www.cdpr.ca.gov/docs/pestmgmt/ipminov/innovatr.htm

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Pest problems Pesticide use report Grants Innovator awards Schools Child care Projects

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**IPM Innovator Awards**

[Back to Pest Management](#)  
[Back to Pest Management Analysis and Planning Program](#)

With its annual Integrated Pest Management (IPM) Innovator awards, the Department of Pesticide Regulation (DPR) honors agricultural and nonagricultural California groups, organizations, or companies for their innovative approaches to IPM and reduced-risk pest management and their leadership role in promoting these practices. [Nominations](#) are accepted throughout the year.

Since the inception of the IPM Innovator Award program in 1994, DPR has presented more than 100 IPM Innovator awards to honor California organizations that emphasize pest prevention, favor least-hazardous pest management, and share their successful strategies with others.

- » [About IPM Innovator Awards, PDF \(157 kb\) overview](#)
- » [IPM Innovator Award Winners \(1994 to most recent\)](#)
  - » [2012 IPM Innovator Award Winners](#)
- » [Example of past award recipient \(2005\)](#)
- » [Nominate](#) a group for an IPM Innovator award.
- » [IPM Innovator slideshow](#)

**IPM Innovators Video Series**

IPM Innovators: Dixon Ridge Farms and Gallo's S...



# AGENDA 4. REWARD/RECOGNITION

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## EXAMPLES: Integrated Pest Management Innovator Award

"Department of Pesticide Regulation (DPR) honors agricultural and nonagricultural California groups, organizations, or companies for their innovative approaches to IPM and reduced-risk pest management and their leadership role in promoting these practices. Nominations are accepted throughout the year."

### WHAT TO LOOK FOR IN AN IPM INNOVATOR NOMINEE

- A pest management systems approach based on preferential use of cultural practices, beneficial organisms and other scientific principles of IPM that reduce risk.
- An organizational structure that allows for research and the continued development of new ideas.
- Education and outreach that encourages the sharing of ideas and information.
- An administrative organization that unifies and supports the collective efforts of participants and provides opportunities to expand the number of participants.





**California Department of  
Pesticide Regulation**

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[www.cdpr.ca.gov](http://www.cdpr.ca.gov)

**BRANCHES:**

**Enforcement**  
916-324-4100

**Northern Regional Office**  
916-376-8960

**Central Regional Office**  
559-243-8111

**Southern Regional Office**  
714-279-7690

**Environmental Monitoring**  
916-324-4039

**Fiscal Operations**  
916-324-1350

**Information Technology**  
916-445-4110

**Medical Toxicology**  
916-445-4233

**Product Compliance**  
916-445-4159

**Pest Management  
and Licensing**  
916-445-3914

**Licensing/Certification**  
916-445-4038

**Personnel**  
916-322-4553

**Pesticide Registration**  
916-445-4400

**Worker Health and Safety**  
916-445-4222

WHAT YOU NEED TO KNOW

# about

CALIFORNIA DEPARTMENT OF PESTICIDE REGULATION

## IPM Innovator Awards

The California Department of Pesticide Regulation (DPR) has given out more than 100 IPM Innovator awards to honor California organizations that emphasize pest prevention, favor least-hazardous pest management, and share their successful strategies with others. The awards provide rare public recognition to groups and individuals who are quietly revolutionizing pest management through their efforts to reduce risks associated with pesticide use.

IPM – integrated pest management – works with nature to encourage beneficial plants and animals while making it difficult for pests to survive.

DPR's IPM Innovator awards are part of a comprehensive, reduced-risk pest management strategy aimed at homes, schools, farms, and the environment.

### Demonstrating Leadership

In 1994, DPR presented its first IPM Innovator awards to acknowledge agricultural and urban organizations demonstrating leadership and creativity in new methods of pest management. DPR hosts an annual event where the Innovators are recognized.

DPR developed the program to recognize pioneering pest control managers for their leadership in voluntarily implementing reduced-risk pest management systems and for their work in sharing those solutions with others.

An IPM Innovator typically has a history of using pest management systems to reduce the risks posed by the use of traditional control practices, showing that their pest management concept is economically viable, and documenting and sharing that system so others can learn and apply the information to their situation.

### Relying on a Systems Approach

IPM Innovators typically rely on pest management systems based on sound scientific principles of IPM, including a preference for using beneficial organisms and cultural practices for pest control when feasible. Pest problems are addressed as part of the overall situation, rather than pest by pest or at only one time of the year.

IPM Innovators often conduct research to find new ways for managing pests. This may include a range of activities from contracted research with academic institutions to on-site trials of participant-identified techniques.

The organizational structure of the IPM Innovator may be very formal, such as a commodity advisory board, a resource conservation district, or a school district, or it may be less formal, such as a community organization that promotes reduced-risk pest management. Many successful IPM Innovators also have representatives from federal, state, or local government, academia, and the business community as



**IPM works with nature  
to encourage beneficial  
plants and animals while  
making it difficult for  
pests to survive.**

■

**IPM Innovators  
emphasize pest  
prevention, favor  
least-hazardous pest  
management, and share  
their successful  
strategies with others.**

advisors to or as members of their organization.

In addition, many IPM Innovators have a well-developed organization – and an educational component responsible for coordinating and working with participants to encourage the sharing of ideas and information. Many Innovators provide training and educational programs for participants. Their outreach programs identify potential new participants and encourage them to join the system. In fact, several of these IPM Innovators went on to receive funds from DPR's Pest Management Alliance Grants Program, which allowed them to further increase sharing of ideas and information.

#### **Nominating an Innovator**

Nominations for IPM Innovator awards can be submitted year round. DPR looks for several characteristics to identify these exceptional achievers in pest management (*see box below*).

If you would like to nominate your organization or another group or organization as an IPM Innovator, please complete the nomination form and send to DPR. The form is on DPR's Web site. Go to [www.cdpr.ca.gov](http://www.cdpr.ca.gov) and click on the "A-Z Index" at the top of the page. Scroll down to "IPM Innovator Awards" and click that. You will find not only a link to the nomination form but also previous award recipients and a short description of each group.

To find out more about the IPM Innovators Program or DPR's other pest management programs, you can also contact:

IPM Innovators Program  
c/o Ann Schaffner  
Department of Pesticide Regulation  
Pest Management & Licensing Branch  
P.O. Box 4015  
Sacramento, California 95812-4015  
(916) 324-4156  
Fax (916) 324-9006  
[aschaffner@cdpr.ca.gov](mailto:aschaffner@cdpr.ca.gov)

#### **WHAT TO LOOK FOR IN AN IPM INNOVATOR NOMINEE**

- **A pest management systems approach based on preferential use of cultural practices, beneficial organisms and other scientific principles of IPM that reduce risk.**
- **An organizational structure that allows for research and the continued development of new ideas.**
- **Education and outreach that encourages the sharing of ideas and information.**
- **An administrative organization that unifies and supports the collective efforts of participants and provides opportunities to expand the number of participants.**



# AGENDA 4. REWARD/RECOGNITION

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Another potential aspect -

Funders moving away from incentives for agriculture.

Change is not consistent with the immediate expectations expected by some funders.

Ecosystem Services in agriculture is not all immediate and takes 1, 2 or more years.

Can we engage these folks through an outreach/education effort?

Can we partner with them to strengthen Ecosystem Services?

Can we use QAM in process?

# AGENDA 5. FUTURE DIRECTION

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- Revisit January 18th, 2012 presentation by Jeff Dlott
- Revisit the Environmental Farming Act mandate
- Revisit what we have done and how it relates to the Act
- Propose potential projects for EFA SAP to study

# ENVIRONMENTAL FARMING ACT SCIENCE ADVISORY PANEL

## Future Direction and Focus



January 18, 2012  
CDFA  
Sacramento, CA

Jeff Dlott, Ph.D.  
Chair

CALIFORNIA CODES  
FOOD AND **AGRICULTURAL CODE**  
SECTION 560-568

560. This article shall be known as the **Cannella** Environmental Farming Act of 1995.

561. The Legislature finds and declares the following:

(a) California agriculture helps to feed the world and fuel our economy. Agriculture provides one out of every 10 jobs in California, and our state has led the nation in total farm production every year since 1948. During 1993, California's 76,000 farms generated nearly \$20 billion in cash receipts and another \$70 billion in economic activity.

(b) Many farmers engage in practices that contribute to the well-being of ecosystems, air quality, and wildlife and their habitat. Agriculture plays a pivotal role in preserving open space that is vital to the environment. Seventy-five percent of the nation's wildlife live on farms and ranches. Freshwater streams and stockponds on farms and ranches provide habitat to millions of fish. Corn, wheat, rice, and other field crops provide bountiful food and habitat for deer, antelope, ducks, geese, and other wildlife.

(c) Environmental laws should be based on the best scientific evidence gathered from public and private sources.

(d) Best scientific evidence should include the net environmental impact provided by agriculture.

(e) Additional research is necessary to adequately inventory the impact that agriculture has on the environment. Recognition should be afforded to **agricultural** activities that produce a net benefit for the environment, which is consistent with the growing trend of providing incentives for the private sector to undertake economic activities that benefit the environment.

564. Unless the context otherwise requires, the following definitions govern the construction of this article:

(a) "**Agricultural** activities" means those activities that generate products as specified in Section 54004.

(b) "Department" means the Department of Food and Agriculture.

(c) "Panel" means the Scientific Advisory Panel on Environmental Farming.

(d) "Secretary" means the Secretary of Food and Agriculture.

566. (a) The department shall establish and oversee an environmental farming program. The program shall provide incentives to farmers whose practices promote the well-being of ecosystems, air quality, and wildlife and their habitat.

(b) The department may assist in the compilation of scientific evidence from public and private sources, including the scientific community, industry, conservation organizations, and federal, state, and local agencies identifying the net environmental impacts that agriculture creates for the environment. The department shall serve as the depository of this information and provide it to federal, state, and local governments, as needed.

(c) The department shall conduct the activities specified in this article with existing resources, to the extent they are available.

568. (a) The secretary shall convene a five-member Scientific Advisory Panel on Environmental Farming to advise and assist federal, state, and local government agencies on issues relating to air, water, and wildlife habitat to do the following:

(1) Review data on the impact that agriculture has on the environment and recommend to appropriate state agencies data that the panel approves as scientifically valid. A state agency that receives data recommended by the panel may adopt and incorporate the data into the appropriate program. If a state agency does not utilize the data recommended by the panel, it shall provide the panel with a written statement of reasons for not utilizing the data. The reasons, at a minimum, shall specify the scientific basis for not utilizing the data. The reasons shall be provided within 180 days of receiving the data from the panel.

(2) Compile the net environmental impacts that agriculture creates for the environment, identified pursuant to paragraph (1).

(3) Research, review, and comment on data upon which proposed environmental policies and regulatory programs are based to ensure that the environmental impacts of **agricultural** activities are accurately portrayed and to identify incentives that may be provided to encourage **agricultural** practices with environmental benefits.

(4) Assist government agencies to incorporate benefits identified pursuant to paragraph (1) into environmental regulatory programs.

(b) Members of the panel shall be highly qualified and professionally active or engaged in the conduct of scientific research. Of the members first appointed to the panel, two shall serve for a term of two years and three shall serve for a term of three years, as determined by lot. Thereafter, members shall be appointed for a term of three years. The members shall be appointed as follows:

(1) Three members shall be appointed by the secretary. At least one of these members shall have a minimum of five years of training and experience in the field of agriculture and shall represent production agriculture.

(2) One member, who has a minimum of five years of training and experience in the field of human health or environmental science, shall be appointed by the Secretary of the Environmental Protection Agency.

(3) One member, who has a minimum of five years of training and experience in the field of resource management, shall be appointed by the Secretary of the Resources Agency.

(c) The panel may establish ad hoc committees, which may include professionals or scientists, to assist it in performing its functions.

(d) The panel shall be created and maintained with funds made available from existing resources within the department to the extent they are available.

# Addressing the Act's Objectives

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- The EFA includes the following objectives for the SAP:
  - **Recommend to appropriate state agencies data that the panel approves**
    - ✦ Addresses Food and Agriculture Code **568 a 1**

# Addressing the Act's Objectives

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- The EFA includes the following objectives for the SAP:
  - Recommend to appropriate state agencies data that the panel approves
    - ✦ Addresses Food and Agriculture Code **568 a 1**
  - **Compile information on the net environmental impacts that agriculture creates for the environment**
    - ✦ Addresses Food and Agriculture Code **568 a 2**

- Ecosystem Services definition
  - ▶ white paper and website
- Qualitative Assessment Model
  - ▶ white paper, website, ongoing case studies
- Ecosystem Services database
  - ▶ database, website, ongoing work



# Addressing the Act's Objectives

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- The EFA includes the following objectives for the SAP:
  - Recommend to appropriate state agencies data that the panel approves
    - ✦ Addresses Food and Agriculture Code **568 a 1**
  - Compile information on the net environmental impacts that agriculture creates for the environment
    - ✦ Addresses Food and Agriculture Code **568 a 2**
  - **Research and review, data upon which proposed environmental policies and regulatory programs are based to ensure that the environmental impacts of agricultural activities are accurately portrayed**
    - ✦ Addresses Food and Agriculture code **568 a 3**

# Addressing the Act's Objectives

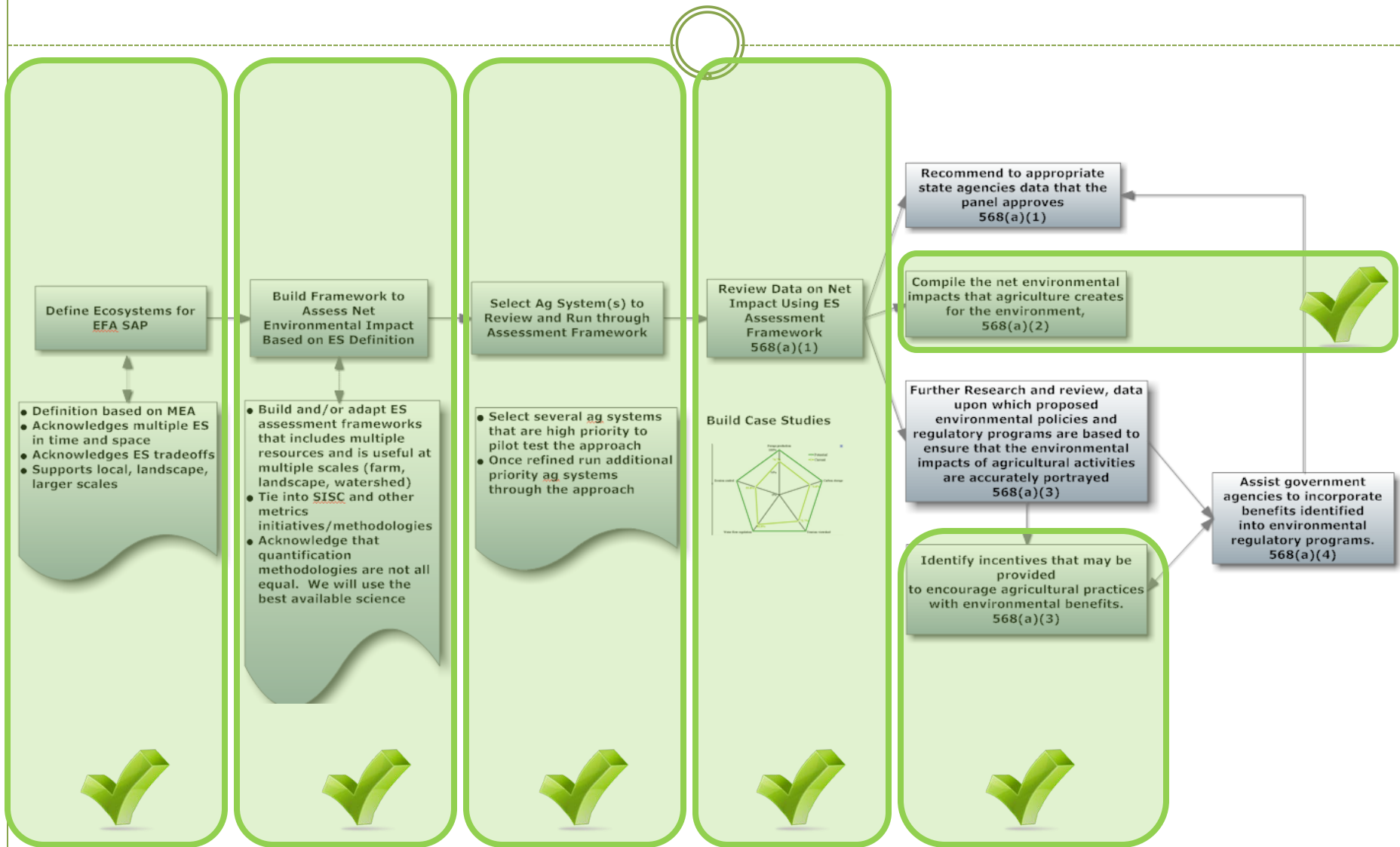
- The EFA includes the following objectives for the SAP:
  - Recommend to appropriate state agencies data that the panel approves
    - ✦ Addresses Food and Agriculture Code **568 a 1**
  - Compile information on the net environmental impacts that agriculture creates for the environment
    - ✦ Addresses Food and Agriculture Code **568 a 2**
  - Research and review, data upon which proposed environmental policies and regulatory programs are based to ensure that the environmental impacts of agricultural activities are accurately portrayed
    - ✦ Addresses Food and Agriculture code **568 a 3**
  - **Identify incentives that may be provided to encourage agricultural practices with environmental benefits**
    - ✦ Addresses Food and Agriculture code **568 a 3**
      - Ecosystem Services pilot projects
        - ▶ white paper, website, CIG grant

# Addressing the Act's Objectives

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- The EFA includes the following objectives for the SAP:
  - Recommend to appropriate state agencies data that the panel approves
    - ✦ Addresses Food and Agriculture Code **568 a 1**
  - Compile information on the net environmental impacts that agriculture creates for the environment
    - ✦ Addresses Food and Agriculture Code **568 a 2**
  - Research and review, data upon which proposed environmental policies and regulatory programs are based to ensure that the environmental impacts of agricultural activities are accurately portrayed
    - ✦ Addresses Food and Agriculture code **568 a 3**
  - Identify incentives that may be provided to encourage agricultural practices with environmental benefits
    - ✦ Addresses Food and Agriculture code **568 a 3**
  - **Assist government agencies to incorporate benefits identified into environmental regulatory programs**
    - ✦ Addresses Food and Agriculture code **568 a 4**

# Summary of Proposed Process and Tools



# AGENDA 5. FUTURE DIRECTION

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A potential project for the Science Panel that will address the following...

- ▶ Research and review, data upon which proposed environmental policies and regulatory programs are based to ensure that the environmental impacts of agricultural activities are accurately portrayed
  - ▶ Addresses Food and Agriculture code **568 a 3**
- ▶ Assist government agencies to incorporate benefits identified into environmental regulatory programs
  - ▶ Addresses Food and Agriculture code **568 a 4**
- ▶ Recommend to appropriate state agencies data that the panel approves
  - ▶ Addresses Food and Agriculture Code **568 a 1**

EFA SAP can...

Identify the number of regulations/permits that agriculture has

Establish any scientific reasons for these regulations/permits

Evaluate options for streamlining the regulations/permits

Share information with pertinent agencies - regulatory certainty

# Thanks

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The facts are coming! The facts are coming!

# AGENDA 5. FUTURE DIRECTION

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What have we completed over the past two years?

- Ecosystem Services definition
  - ▶ white paper and website
- Qualitative Assessment Model
  - ▶ white paper, website, ongoing case studies
- Ecosystem Services pilot projects
  - ▶ white paper, website, CIG grant
- Ecosystem Services database
  - ▶ database, website, ongoing work
- Ecosystem Services survey
  - ▶ survey and final report - in progress
- Ecosystem Services literature review
  - ▶ white paper - in progress

