Almond Sustainability Program: Getting Credit
Gabriele Ludwig, Moderator
Continuing Education Units are available for most sessions.

Please check in at the CEU desk in the Doubletree Hotel lobby for details and instructions.
Almond Sustainability Program: Getting Credit

Presenters:
Dan Sonke, SureHarvest
Almond Grower Participants
California Almond Sustainability Program

Gabriele Ludwig, ABC & Dan Sonke, SureHarvest
How To Play Our Game

Q. Almonds grow...

1. On vines and fruit underground
2. In every state of the US
3. Hydroponically in greenhouses
4. On trees in the Central Valley of California

• SAMPLE QUESTION
Almonds Grow...

1. On vines and fruit underground
2. In every state of the US
3. Hydroponically in greenhouses
4. On trees in the Central Valley of California
What is Sustainable Almond Farming?

1. Only organic almond farming
2. Only almonds grown within 100 miles of where they are eaten
3. Almond growing that considers the long-term economics as well as impacts to the environment and society
Sustainable Almond Farming

Almond Definition:

• Sustainable almond farming utilizes production practices that are economically viable and are based upon scientific research, common sense & a respect for the environment, neighbors & employees. The result is a plentiful, healthy & safe food product.
The Primary Driver of Sustainable Agriculture Programs Today is...

1. Michelle Obama
2. Hippie communes
3. Natural food store shoppers
4. Socialist Environmentalists
5. Mainstream food companies like Wal-Mart, Nestle, General Mills, Unilever
Improving Sustainability of Our Agricultural Supply Base

At Wal-Mart, we find that responsible corporate citizenship is good for our business as well as good for the world. We have important responsibilities to those groups of our business audience who have a direct interest in our operations and actions. Some of these are stakeholders and some are customers. We believe that our success and well-being are only part of the picture. Responsible corporate citizenship means that companies must operate independently of their own agenda. It requires that companies step back and view themselves as part of the broader system of commerce. It means that companies must reach out and address the long-term viability of their agricultural supply chain for the success and well-being of all people around the world.

Our Company

People

Sustainability

Overview

Our agricultural suppliers are responsible for all stages of production, from soil preparation to delivery of the finished product to the store. In addition to the environmental impacts of their operations, these suppliers also have an impact on the health and well-being of the farm workers and their families. We believe it is important to work with our suppliers to improve their sustainability. Our agricultural suppliers are responsible for all stages of production, from soil preparation to delivery of the finished product to the store. In addition to the environmental impacts of their operations, these suppliers also have an impact on the health and well-being of the farm workers and their families. We believe it is important to work with our suppliers to improve their sustainability. Our agricultural suppliers are responsible for all stages of production, from soil preparation to delivery of the finished product to the store. In addition to the environmental impacts of their operations, these suppliers also have an impact on the health and well-being of the farm workers and their families. We believe it is important to work with our suppliers to improve their sustainability.

Sustainable Value NETWORK:

Our networks enable communication across departments, companies, and countries to ensure a better flow of knowledge and apply it to our business.

Recent Activities

- Agri-Business Council of America's Sustainable Agriculture initiative
- Sustainable Agriculture Network

Nutrition & Hygiene

The social impact of our products on people's health.
- Nutrition
- Hygiene

Environmental Footprint

Reducing our footprint and addressing climate change challenges.
- Environmental

Creating & Sharing Wealth

How we share our sustainable supplies of raw materials.
- Creating & Sharing Wealth

Sodexo: Our Commitment to Responsible Leadership

The people at Sodexo feed the lives of millions of men, women and children each day. Our customers range from college campus and students to children entering school for the first time, medical professionals and hospital staff to patients and their families; corporate executives to company employees of every description. People from every walk of life north and south across America.

Regardless of the background, occupation or personal needs of our customers, our commitment goes beyond the services we provide. Our mission is to improve the quality of daily life for all the people we serve. Being socially responsible is central to this commitment and the reason why we have become the first company in our industry to employ the Global Reporting Initiative (GRI) and the Sustainability Reporting Hub.

Sodexo USA’s Supplier Code of Conduct

We strive to be the type of company and help to create the type of world we want tomorrow. As a leading provider of food service and facility management services throughout North America, we commit to continuing to lead our industry in helping to address the challenges that are impacting our communities.

Sustainability report 2006
March 20, 2009

Obamas to Plant Vegetable Garden at White House

By MARIAN BURROS

WASHINGTON — Michelle Obama will be planting a vegetable garden at the White House this spring, fulfilling her promise to grow her own vegetables at a time when obesity and diabetes are on the rise.

“My hope,” the first lady said in an interview, “is that it will energize the whole country and give us a sense of what it means to eat fresh and healthy food.”

Twenty-three fifth graders from Bancroft Elementary (which has “the Obama girls’ swing set.”)
Crop/Nut of Choice Continuum
What Happens In The Field Affects The Market

A Crop of Choice

The Nut of Choice
Social License: The privilege of operating with minimal formalized restrictions (legislation, regulation, or market requirements) based on maintaining public trust by doing what’s right.

Public Trust: A belief that activities are consistent with social expectations and the values of the community and other stakeholders.

Source: Charlie Arnot (Center for Food Integrity)
The Social License To Operate

Flexible Responsive
Lower Cost

Social License
- Ethics
- Values
- Expectations
- Self-Regulation

Tipping Point

Single triggering event
Cumulative impact

Rigid Bureaucratic
Higher Cost

Social Control
- Regulation
- Legislation
- Litigation
- Compliance

High Trust
Complete Autonomy

Low Trust
Prohibition

Source: Charlie Arnot (Center for Food Integrity)
Besides Farmers, the CASP Exists to Help the Almond Industry Respond to What Group of People?

1. Buyers of almonds for chocolate manufacturers
2. Buyers of almonds for restaurant suppliers
3. Regulators & legislators
4. Buyers of almonds for breakfast cereal
5. All of the above
What Do I Need to Become a “Sustainable” Almond Grower?

1. Spend lots of money on new technologies
2. Give up modern pesticides & fertilizers
3. Replace tractors with mule teams
4. Most almond farmers probably use many sustainable practices already
Most almond farmers are using many sustainable practices already.

- 3,4,5\textsuperscript{th} generation almond farms

But society doesn’t understand farming anymore.

→ To “get credit,” we want to document what you do
Almond Farmers Never Change, Right?

Almond harvest, 1939
Self-Assessment

How do we document that almond growers are sustainable?

► ‘Self-Assessment Tool’

- Not a survey, a process by which you ‘assess yourself’
- Based on grower and expert input (UC, CSU, UCCE and private consultants)
- Currently covers irrigation and nutrient management
- Additional modules in development
  - Air Quality
  - Energy
  - Pest Management

For my orchard, I am using the following practices and/or technologies for maximizing my drip or micro-irrigation system efficiency:

<table>
<thead>
<tr>
<th>DRIP AND MICRO-SPRINKLERS</th>
<th>Not familiar with this</th>
<th>I haven’t tried it</th>
<th>I have tried it</th>
<th>Not applicable</th>
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<tbody>
<tr>
<td>29 The system has pressure compensating emitters to help maintain system distribution uniformity</td>
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<td>30 The pH of the irrigation water source(s) has been checked at least once in the past year</td>
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<td>31 The EC (electroconductivity or salinity), bicarbonate, and/or iron levels of the irrigation water source(s) have been tested at least once in the past 2 years</td>
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<td>32 Filtration and chemical treatment are used as needed to prevent clogging from biological causes</td>
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<td>33 All irrigation lines and emitters are checked for leaks or clogs at least weekly (preferably with every irrigation for micro-sprinklers)</td>
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<td>34 Irrigation lines are flushed at least at the start of the season, at least once mid season, and more often as needed</td>
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CASP Workshops
Wayne Bruns
Merlyn Garber
## Irrigation Infrastructure and Maintenance

**What is the type of irrigation system for this orchard?**

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<tbody>
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<td>Micro-sprinkler</td>
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<td>3.</td>
<td>Flood or furrow irrigation</td>
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<td>4.</td>
<td>Sprinklers</td>
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Irrigation Infrastructure and Maintenance

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<td>I haven’t tried it</td>
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For my orchard, I am using the following practices and/or technologies for maximizing my irrigation efficiency.

A distribution uniformity test has been done on the irrigation system at least once in the past year.

A. 20%  B. 20%  C. 20%  D. 20%  E. 20%
Scheduling Based on Evapotranspiration (ET)

For my orchard, I am using the following practices and/or technologies for determining *when* to irrigate.

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<td>My Current practice</td>
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I make irrigation decisions by following historical ET.
Scheduling Based On Evapotranspiration (ET)

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For my orchard, I am using the following practices and/or technologies for determining *when* to irrigate.

I make irrigation decisions by following real time evapotranspiration (ETc) data at least weekly and calculating the water volume leaving the plant and soil.
### Plant Stress Monitoring

For my orchard, I am using the following practices and/or technologies for determining *when* to irrigate.

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I decide when to irrigate based on measured plant stress by monitoring plant water stress (stem water potential) with a pressure chamber.

- 20% of respondents are not familiar with this practice.
- 20% of respondents have not tried it.
- 20% of respondents have tried it.
- 20% of respondents use this as their current practice.
- 20% of respondents find this practice not applicable.
For my orchard, I am using the following practices and/or technologies for determining *when* to irrigate.

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I monitor soil moisture with devices such as neutron probes, dielectric device, tensiometers, etc.
Tissue Testing

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For my orchard, I am using the following practices and/or technologies for maximizing nutrient management efficiency.

Plant tissue tests have been taken prior to the application of nutrients & the test results actually guide the amount of nutrients applied in the orchard.
What Kind of Things Would Attract You to Do a Self-Assessment? Select all that apply

1. Free meal at workshop
2. Free beer or wine at workshop
3. Equipment/trade show/technical information at workshop
4. Ability to do the assessment online at home
5. CEU credits for doing self-assessment
Upcoming Workshops

December 15, 2 - 6 p.m. (Beer & Appetizers provided)
Waterloo Ca Restaurant
10447 E. Waterloo Rd. (Hwy 99 to Waterloo Rd East 6 miles)
Stockton, CA

December 17, 2 – 6 p.m. (Beer & Appetizers provided)
Granzella’s Inn
391 6th Street (next door to Granzella’s Restaurant)
Williams, CA 95987
Cards

Visit the ABC booth in the tent

Stand Tall!!
Tell the Good Story
Wrap-Up, Discussion and Q&A
Growers:
Win a New Holland Rustler from Garton Tractor and SmartCube Packaging System. Complete your entry form and return to booth #81 or #82.
Sessions at 1:30 pm:

Pollination Updates in Grand Ballroom

Leveraging Consumer Demand to Become an Essential Ingredient in Arbor Theater
Growing Advantage
Leadership through Research
2010
38th Annual Almond Industry Conference