

Sustainable Food Systems

workshop Sunday 24 June 2007 Santa Barbara City College

Roberta Anderson

Food Alliance- non-profit 3rd party certification focusing on whole system of sustainable agriculture

Certification programs- eco labels, help buyers tell credible story
food alliance is a combo of certification criteria which may encompass CCOF, Fairtrade, Salmon Safe, labor issues, social issues, etc.

certification label is proof/demonstration that food meets set of criteria

1. self assertion/self certification (no proof), e.g. lundberg rice
2. buyer choice- difficult to demonstrate
both levels 1 & 2 risk of 'Greenwashing'
3. Third party certification (most credible)
producer and buyer contract 3rd party to check production standards to a set of established criteria (requires proof)
e.g. Food Alliance, CCOF, Fairtrade

Direct marketing to chef is key

Distribution system for mid-size farmers → make a bigger market

Sustainable food purchasing policy for institutions:

obtain grant, guide to process, steps to take, mission driven, impacts community, social welfare

goals set and are measurable

1. Need to identify who is involved
Make sure there's buy-in
 2. Establish a vision (don't mix means with ends)
Assess limits & possibilities with current system (if doesn't work, REASON to move to another system)
 3. Establish a strategy – how to measure, production system used, use creativity
to meet goal
 4. Measurement- what's currently local, organic, sustainable in current food system(create baseline) track over time (How are we making progress)?
Certification is a tool for food service operations to see if meeting your goal
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John Turenne

Challenges:

1. Cost confusion- food is percentage of total cost of running food operations
2. Access- distribution, season, farmers

3. Perseverance

Students: push presidents/chancellors for Sustainable Foods

Successes:

Job security

customer satisfaction

Save local farmers!

Taste!

Renewed passion for preparing food (Know that you are doing the right thing)

Don't throw out your current practices, but make them more sustainable

e.g. change old recipes (board systems) to work

Hire students or have interns enter new ingredients

Internal resources: don't forget to look within your institution

Need internal champions – patient, authoritative, thick-skinned, won't give up, go to person

patience (yet persistence)

garner support from high up (Trustees, Chancellor)

promote the “Why” (we need to do this) as much as the “How”

External resources- network with colleagues at other institutions, farmers, don't reinvent the wheel

Don't add a concept, you have to WOW them! More choices on the menu isn't necessarily better,... More crap is still crap.

World Café Exercise

Community Interactions with campus

organic farm link

student-driven

culinary students

Goals: short, medium, long-term

United by common goal: Everyone needs to eat!

Don't see problems, but opportunities in disguise (see solutions)

How do we make this work?

Identify stakeholders

How do we reduce your workload?

Cindy Douglas- Farm Manager, Cal Poly San Luis Obispo organic farm

orgfarm@calpoly.edu

805.756.6139

Amie Frisch, California Student Sustainability Coalition (CSSC) food initiative
CSU food coordinator
student gardening
sustainable agriculture class (mulching, intercropping)
visit CSAs and other organic farms
community service, project based
interdisciplinary
UC Education for Sustainable Living Program (ESLP)

Monday a.m. plenaries

LEED- EB = Existing Bldg

Footprint of Earth 2.18 world

U.S. 9.57 (if everyone lived as US, we'd need 3-4 earths)

we need 50% reduction in Greenhouse Gases to stabilize, otherwise we're facing 4 fold increase in GHG

We need synergies, optimizing complex systems not "increased efficiencies"

Dr. Young, LACC Chancellor

Pres. Climate Commitment, 300 presidents have signed, but represents <10% of college presidents

Due to lack of governmental leadership NEED to provide national leadership from Higher ed.

Focus on people's financial pragmatic side (not converting them to be 'true believers' in the environment) and minimal sacrifice (we are a short term society)

Green capital investments can be used to increase net operational funds

Make large scale changes with minimal sacrifice

US must be a full partner in solving global warming because we are the largest contributor to the problem

Sustainability Committees

All UC campuses now have Chancellor's Sustainability committee

New committees: is this the right structure for our committee?

Need to launch a campus assessment

Leverage resources through community process

Vendor fair with environmentally friendly products

Berkeley's committee has been in place 4 yrs and is finally starting to be recognized as entity

Write out committee's goals: short, medium, and long term

Berkeley has a student co-chair

UCDavis acquired \$10,000 in grants and partnered a student with a faculty member to work on specific projects on campus using grant funds

also use student interns: one working on sustainable foods, one working on a green map

UCRiverside:
What is the reporting structure?
Don't tackle tough projects too early

UCSF-
has Environmental Reportcard each year

UC Policy on Sustainable practices- all campuses as of March 2007

need representative from VC admin, transportation
Float through easy issues
get students involved as champions from tough issues
get conduits to community : mayor's office, city officials

Re: projects
spread workload
subcommittees, working groups need to report back to Sustainability committees
with their recommendations

1st year subcommittees listed goals, 2nd year started actions and reported back
present to Chancellors

SF- several years of lobbying for funding
several successes – tie in financial savings
remember Hippocratic oath- 1st do no harm
California Climate Registry

UCSD- 14 principles of sustainability
6 members from Environmental Stewardship workgroup
Environmental Health and Safety, Facilities and construction

UCSF & UCSD are hiring sustainability coordinators
Faculty and Academic Senate listing courses that encompass sustainability

UCRiverside is organizing existing courses around

UC committees focus more on nuts and bolts rather than curricula
* only 1 of 10 UC committees is headed by a faculty member, all others are staff
or Admin

Arizona State has sustainability Major and is working on sustainability minor in
every discipline (contact Bonnie Benson)

Question was raised by audience as to how many committees focus on issues of sustainability other than environmental factors (i.e. social, health, equity, quality of life, environmental justice, etc.) ? essentially none...

Important to ask Chancellor's where they stand, and if they will advocate for climate commitment

Curriculum

Incorporating sustainability across the curriculum UCSD

George Tynan

Gabriele Wienhausen – provost of 6th College

Susan Smith- provost of Muir College

Goal: to seed Sustainability across UCSD Undergraduate curriculum and illustrate using local and regional issues

Environmental Sustainability Initiative – Fall 2006

Scripps Knoll Project/ Coastal chapparal

- Identified diverse faculty interested in sustainability (did not ask all faculty)
- recruited 8-9 specific faculty
- brought them together with environment & sustainability resource people hear about an issue from local perspective
 - 3 talks on one Saturday workshop
 - 5-6 weeks of Friday afternoon lunch talks
 - 1 fieldtrip
- teach faculty what the issues are, let them modify courses as they see fit
- reconvene in 1 year
- goal is to train 50+ faculty over several years

Guest speakers included:

Ralph Keeling (Charles Keeling's son)- Climate change researcher at SIO
one of IPCC report scientist

Oliver Ryder (Zoo & UCSD Bio) – Devo & Local Biodiversity

Paul Dayton (SIO Marine Biologist)- Scripps Knoll Tour

Keith Pezzoli- GIS

Kaustuv Roy (UCSD Biologist)

Sheila Sarkar

Emory- Piedmont Project

UCSD procured \$1500 for research to each person

ESI @UCSD found private donor

Sustainability in Curriculum

California State Chico- Jim Pushnik

Ecoliteracy course in action for 5yrs

How to integrate into curriculum

Environmental concepts as graduate requirement- students want this
How personal action will influence the future?
What does “Environmental Literacy” mean?

New curriculum based on:

- a. Environmental concepts
- b. sustainable development

engage students in environmental, political, social, ecological
work together

Perceive health of environmental systems & connect to personal, physical, mental and
social well-being “see the patterns”

Develop knowledgeable citizenry
promote lifelong learning in a GE class
target audience was freshmen

class met 3 days a week

Monday- topic intro

Wed- guest lecture by specialist(give reading for Friday)

Friday- student discussion

Service Learning component to course

Emphasize humans as a part of nature

- system thinking, with connections & feedback mechanisms

Physics, geo, bio, social sciences, poli sci, human expression, economics, enviro

build mind maps as go through course in order for student to understand connections

Summary:

3 essay exams

embedded assessments

iterative writing assessments with feedback, what do you do next?

weekly question

discussion

Attitudinal Assessment

pre and post course survey

Enviro summits – solicit for faculty attendance with Pizza and beer

150 courses with some aspect of sustainability

must meet 5 new people and commit to going to lunch and discussing
sustainability

-Held enviro film festival

-Graduation pledge- students vow to consider environmental implications of companies that they are considering working for in future
- sustainability audits

campus Sixth Strategic Priority

Goal: Create Environmentally literate citizens who embrace sustainability as way of life

We will be wise stewards of scarce resources

seek to develop the whole person

be aware that individual and collective actions have economic, social and environmental consequences

All Nat. Sci are required to take course

Outdoor classroom

Sustainability in Curriculum

Brad Monsma

CSU- Channel Islands

Literature & Sustainability = Environmental Literature course

signs, symbols and patterns

Connects experiential learning to writing and research

uses thematic approach and orienteering, narrative scholarship/ personal essay

ask students: where are we? how does this connect to where we might be going?

Read: Louis Owens- "Burning the Shelter"

John McPhee- "The Control of Nature"

Robinson Jeffers- "Carnel Point"

Aldo Leopold- "A Sand County Almanac"

Pattiann Rogers- "the hummingbird: a seduction"

Andy Goldsworthy- Film: Rivers and Tides

Terry Tempest Williams- "Refuge"

Introduce Students to:

Eco Concepts

Environmental Justice

History of Conservation

Cultivating Diversity

Local Ecosystems and environmental history

Potential of visual arts

great environmental authors

adept at communicating their own understanding, discerning, humility

<http://faculty.csuci.edu/brad.monsma>

Assoc. for Study of Literature and Environment
<http://www.asle.umn.edu>

Nalini Nadkarni- Evergreen St. College in Washington
working on moss research with prisoners as researchers
had composers score her graphs in order to interest people

Incorporating Sustainability

George Gedgen

Review and implementation of UC's sustainability practice policy
2004 policy put into place, is progressive and changes over time
By 2008, each campus will have Campus Climate Action Plan

Green Bldg

LEED-EB project (1 existing building for each campus)
Utilize savings by Design program
whole building analysis and life cycle costs

Recycling

Zero Waste by 2020, IWMP

Purchasing

"cradle to cradle" full cycle is preferred
life cycle cost considered
packaging
influence vendors to think sustainably

Renewable Energy

17% renewables in electricity contract
100% at UCSC

California Climate Action Plan

8 campuses joined

Sustainable Transportation

Collaboration- Each campus has Chancellor's committee on Sustainability

Working Groups:

sustainable food systems
Sustainable operations
Bldg renovations
Sustainable Transportation
Sustainable Purchasing
Climate Change

Incorporating Sustainability

Len Pettis- CSU office of Chancellor
Energy and Sustainability
23 campuses, 7 off-campus sites
417 thousand students
207,000 jobs

80,000 BTU/GSF energy used/yr
Energy 15% reduction by 2010 (75,000 BTU)
CSU Northridge Fuel Cell- 80% efficient (sequestering carbon and using in house)
Best possible w/cogeneration 40-50%
renewable from 3MW-10MW by 2014

CSU Program for Environmental Responsibility (PER)
promotes stewardship
provides best learning and working environment
minimizes impacts to the environment

Cornerstone→ Access to excellence

Evaporative Cooling provides ventilation for Sonoma's Rec Center

Eco-Charrette- Responsible Decisions and open dialogue
cradle to cradle

LEED portfolio system
progressive documentation for Qualitative and quantitative benchmarking

EE Partnership
TD performance
50% kWh
36% therm
\$6.5 committed

AB32 & Climate Registry
2012 Regulations TBD
by 2020 must equal 1990 emissions in CA
California Climate Action Registry
emission reporting
establish a baseline
known requirements

Campus President's Climate Commitment
opt. 3rd party program

4 campuses signed SFSU, Chico, Monterey, Pomona others considering

CSU sustainability website

<http://www.calstate.edu/cpdc/sustainability>

contains info on: policies, reports, academics, research, operations, community, and student initiatives

Incorporating Sustainability

Larry Eisenberg, LACC exec. director for facilities planning

eisenblh@laccd.edu

213.891.2366

Policy implementation

Largest sustainability program in the world

9 colleges with \$2.2 billion bond program

44 new bldgs, 455 remodels

adaptive reuse

bldg orientation optimized

LEED and BREEAM (British equivalent of LEED)

water

low flow or no irrigation (natives)

waterless urinals - \$400 rebate to retrofit

cistern for water capture

gray water

storm water management

Future: campuses as Living Machines – no water will leave campus grounds, sewage will be processed on site

Performance contract

3rd party funded, they do energy audit and payment is secured via savings from energy reduction

PV- 3rd party

Federal energy credit- 30%

Rapid depreciation- 25%

Utility Incentive- 20%

green tag sale- 5%

Bulk procurement 10%

= 90% of cost

10 cents on the dollar – power purchase agreement

solar 13 cents

Edison 21 cents (but out of future capital)

Purchasing

100% recyclable materials

piggybackable by all public entities

planned for \$100 million to spend on furniture, but only cost \$60 million

Hi volume Fly Ash concrete- cheaper, stronger, sustainable

Sustainable Carpet- 30 yr warranty

<\$15/sq. yd.

100% recyclable – cradle to cradle and piggybackable

Zero landfill policy

second market

manufacture takeback

Rural Education Asset Partnership (REAP)

E-surplus all re-usable items, not sent to landfill

LA shares

Tioxoclean- Titanium Dioxide

spray on window, never need to clean window

Anti-graffiti sealer

paint washes off and helps with sustainability of bldg materials

Lithium hydride- no combustion fuel cells

flow battery- vanadium salt product carries electricity, infinitely renewable

Li Battery- size of cigar box stores 1Kwh charge

Recycling- Zero Waste

Mike Carey- Orange Coast College Recycling Coordinator

Assoc. Students runs recycling center

started in 1970, serves public as well as campus as buy-back center

1st recycling coordinator hired in 1983, received grant for funding in 1986

32 tons/ mo public

entirely self-supported, 3 FT staff, 18 PT

\$35K profit in 05/06 and \$70K expected for 06/07 fiscal year

1 million in gross sales

Recycling center staff pick up recyclables on campus 5 days/week

Board approved 7days/week collection ctr for e-waste

Started Enviro Resource Center

Mulching program: 300 tons green waste/year

Grasscycle- 13.5 acres of sportsfield

Tub Grinder- \$7000/yr

this year 1st surplus auction

\$51K waste hauling all to MRF 06/07
19 3 yd bins, 4 roll offs= 1100 tons generated annually
want a detailed analysis- estimated 30% pulled out of waste stream
AB 939

AB75 – 67.3% diversion

student project- refurbish bikes and provide for on campus use

Recycling- Zero Waste

Zero waste at UCDavis
Christa Jones and Erin McNichol (students)
R4 Recycling Program Coordinators
UC Zero Waste Goal by 2020- campus strategic plan

catering for meetings and events becomes a hands-on educational demo for zero waste
R4 Recycling program will plan event- Sodexo catering now has zerowaste option
compost, trash, recyclables are collected
washables dishes instead of disposables
buy bulk, no individual packets
use wooden stirrer sticks or spoons instead of plastic

Resources:

The power of Sun- documentary
sustainabilitycoalition.org
Edible landscaping- UCSC
CSU- Green energy campaign
UC- sustainable foods system policy
California Student Sustainability Coalition
CSSC listserv- google groups Casustainablefoods
maren_poitras@berkeley.edu for more info
Alice Waters “Delicious Revolution”
“Store Wars”
Local Sustainable Food Alliance
Community Alliance of Family Farmers (CAFF)
Community Agroecology Network (CAN) -student internships in Costa Rica or El Salvador
interns@communityagroecology.net
831.459.3619
www.communityagroecology.net
Excellent Packaging & Supply (EPS)- biodegradable cutlery, cups, plates, etc.
www.excellentpacking.com
Allen King 510.501.3307
Vivid Picture Concept
Real Food Challenge
Andy Coghlan- Alliance to Save Energy

California Climate Registry

CSU sustainability website <http://www.calstate.edu/cpdc/sustainability>