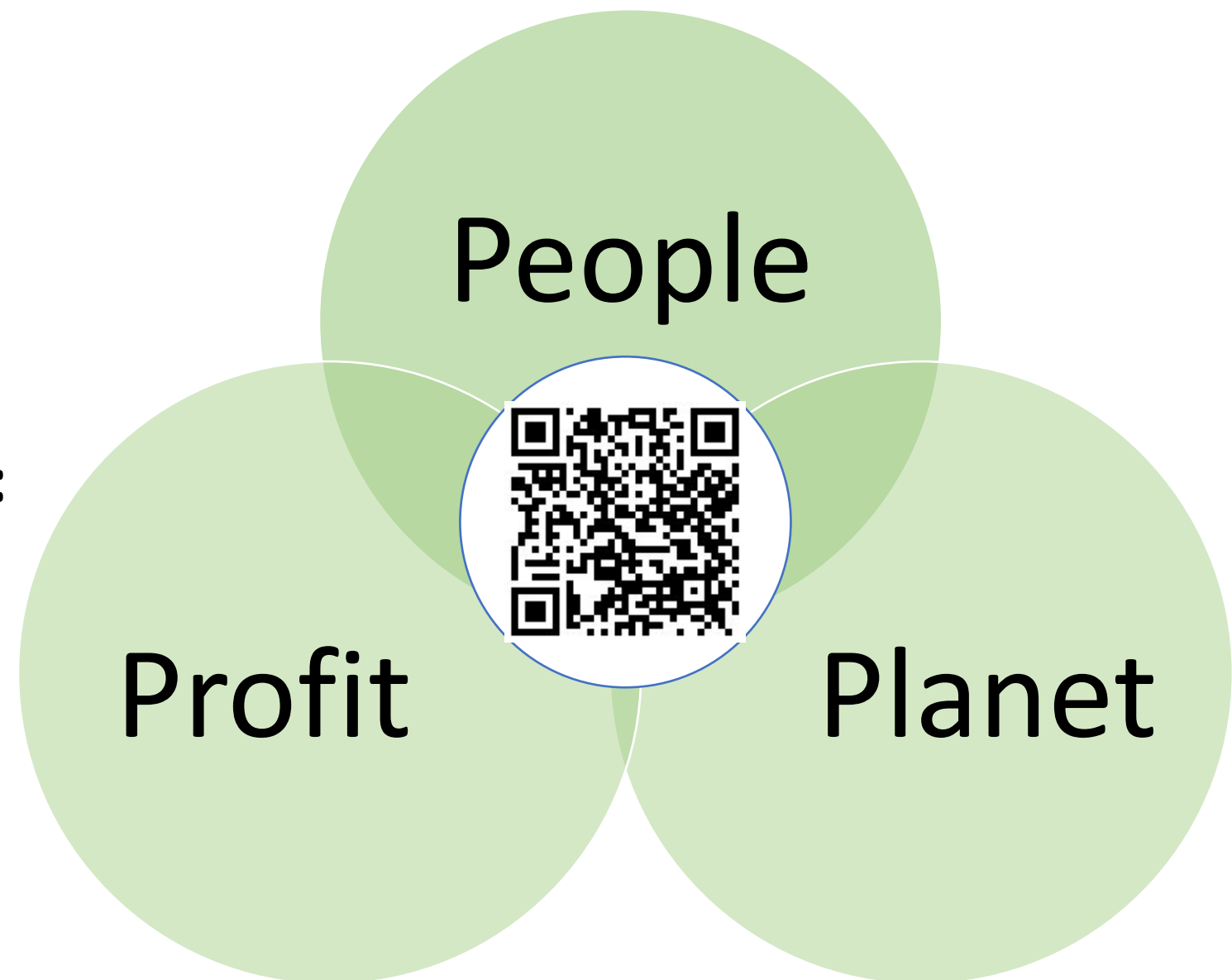




SUSTAINABLE AND ORGANIC AGRICULTURE PROGRAM

COOPERATIVE EXTENSION, UNIVERSITY OF HAWAI'I AT MĀNOA
COLLEGE OF TROPICAL AGRICULTURE AND HUMAN RESOURCES

- **Hector Valenzuela initiated CTAHR organic research in 1993**
- **SOAP and Certification of research plots starting in 2009**
- **Statewide program focuses on:**
 - **Increasing farm income**
 - **Promoting environmental stewardship**
 - **Supporting prosperous farm families and communities**





Statewide Program

- Ag Professional Trainings (annual)
- Applied Research
- Soap Learning Centers
- Organic certified plots
- Outreach materials and events
 - Workshops, field days, traveling team, etc.
- Website Information
- Online Quarterly Newsletter
- Social Media Awareness Campaign
- Testimony to increase awareness
- Go Farm & Master Gardener instruction and field support
- Student organic farm training (SOFT)





Sustainable and Organic
Agriculture Program

College of Tropical Agriculture and Human Resources
University of Hawai'i at Mānoa

<https://cms.ctahr.hawaii.edu/soap>



Cover Crop Calculator

Backed by CTAHR research, farmers can now use a biomass subsample to determine cover crop inputs.

Resources



Waimanalo Learning Center



Student Organic Farm Training



Contact SOAP Members



SEPTEMBER 2022

Mon	Tue	Wed	Thu	Fri	Sat
29	30	31	1	2	3

Hānai'Ai

The Food Provider

April | May | June 2022



**Sustainable and Organic
Agriculture Program**

College of Tropical Agriculture and Human Resources

Aloha Kākou

This exciting June 2022 issue of Hānai'Ai presents a good deal of information that you should find very helpful. We present a new 'Ulu Agroforestry Guide, and introduce an adapted 'Ulu propagation method for the 'ulu producer or those thinking about growing 'ulu. Please see the papaya seed repurposing for biofumigation use, detection of CBB, The Mango Loa Project, Sunflower days to maturity and programs at O'ahu's Urban Garden Center.

Make sure to visit the "back pages" of the newsletter as well, which feature Upcoming Workshops, Conferences and Meetings, and the Organic Corner for the latest news on organic production.

Stay up to date with our weekly SOAP activities via our instagram, facebook and twitter feeds, links are below.

We would also like to thank all of you who have participated in completing the survey. We will be sharing the results of the survey in the next issue.

As always, the mission of Hānai'Ai is to provide a venue for dissemination of science-based



Feature Farmer: Yokoyama Farm- Allan and Cora Yokoyama

How long have you been farming?

We are a small farm. We currently have 3.5 acres in production. We had been farming on Kauai for 7 years before moving to the Big Island.

How many years has your current operation been in production?

We have been farming in Waimea for 10 years.

What crops do you grow? Animals do you raise? Any other goods and services you provide (i.e. value added)?

Artichokes, beets, blueberries, broccolini, cabbage, cauliflower, daikon, potatoes, sweet onions, and taro leaf.

ARCHIVES

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Volume 35: Aug | Sept | Oct 2019

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Volume 34 | Summer 2019 |

Volume 32: Mar | Apr | May 2018

Volume 31: Dec | Jan | Feb 2018

Volume 30: Sept | Oct | Nov 2017



CTAHR Sustainable Ag

@SOAPHawaii

University of Hawaii at Manoa

ctahr.hawaii.edu/sustainag/

Joined February 2013

1,129 Photos and videos



Tweets 1,772 Following 2,613 Followers 2,119 Likes 46

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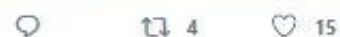
CTAHR Sustainable Ag @SOAPHawaii · Jul 28

CTAHR's Rachel Novotny presents on efforts to grow agriculture programs in public schools at the Sustainable Agriculture Education Association (SAEA) Conference



CTAHR Sustainable Ag @SOAPHawaii · Jul 27

Some of the beautiful proteas at the Kula Agricultural Research Station on Maui. The bees were happy.



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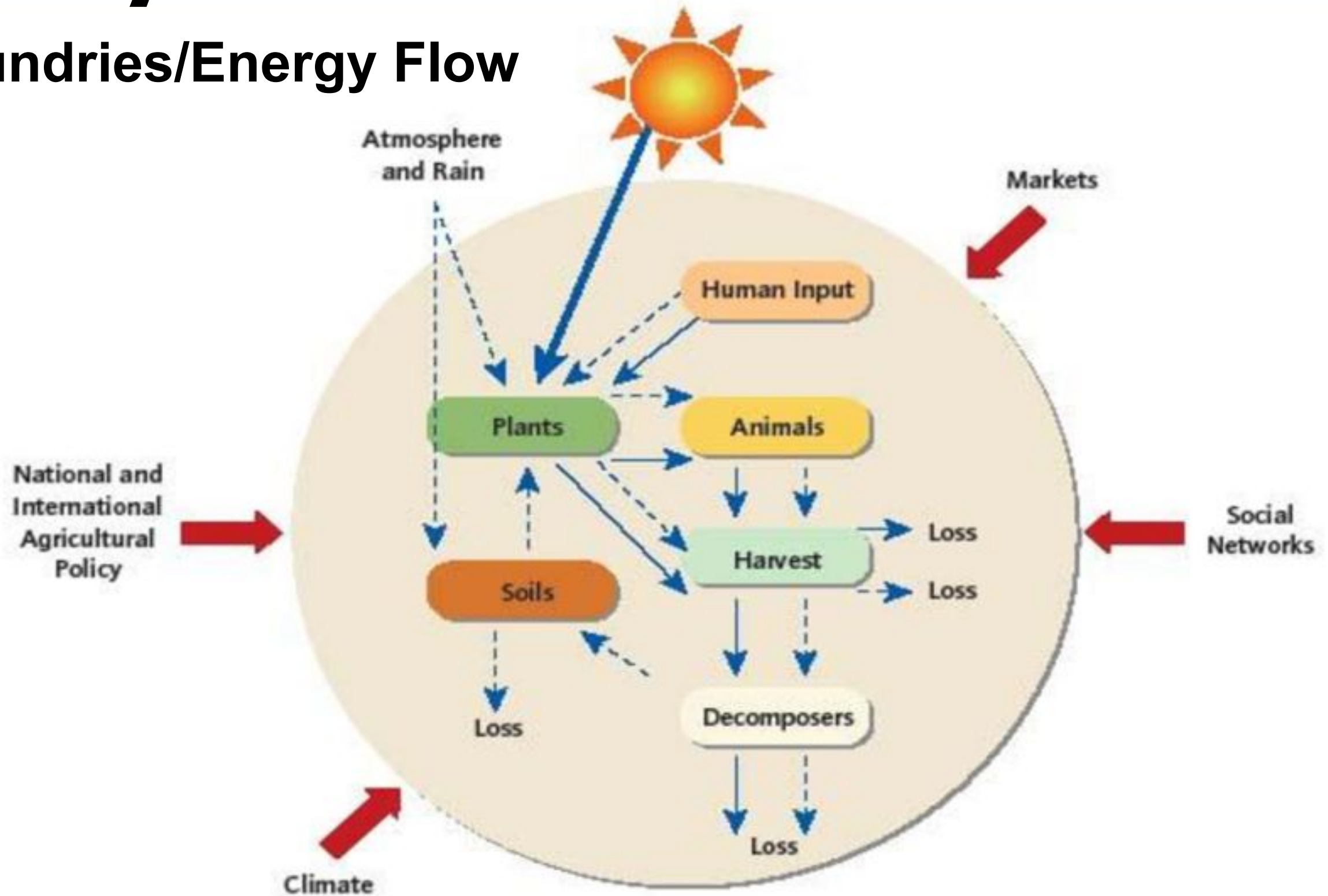


Agroecology



System

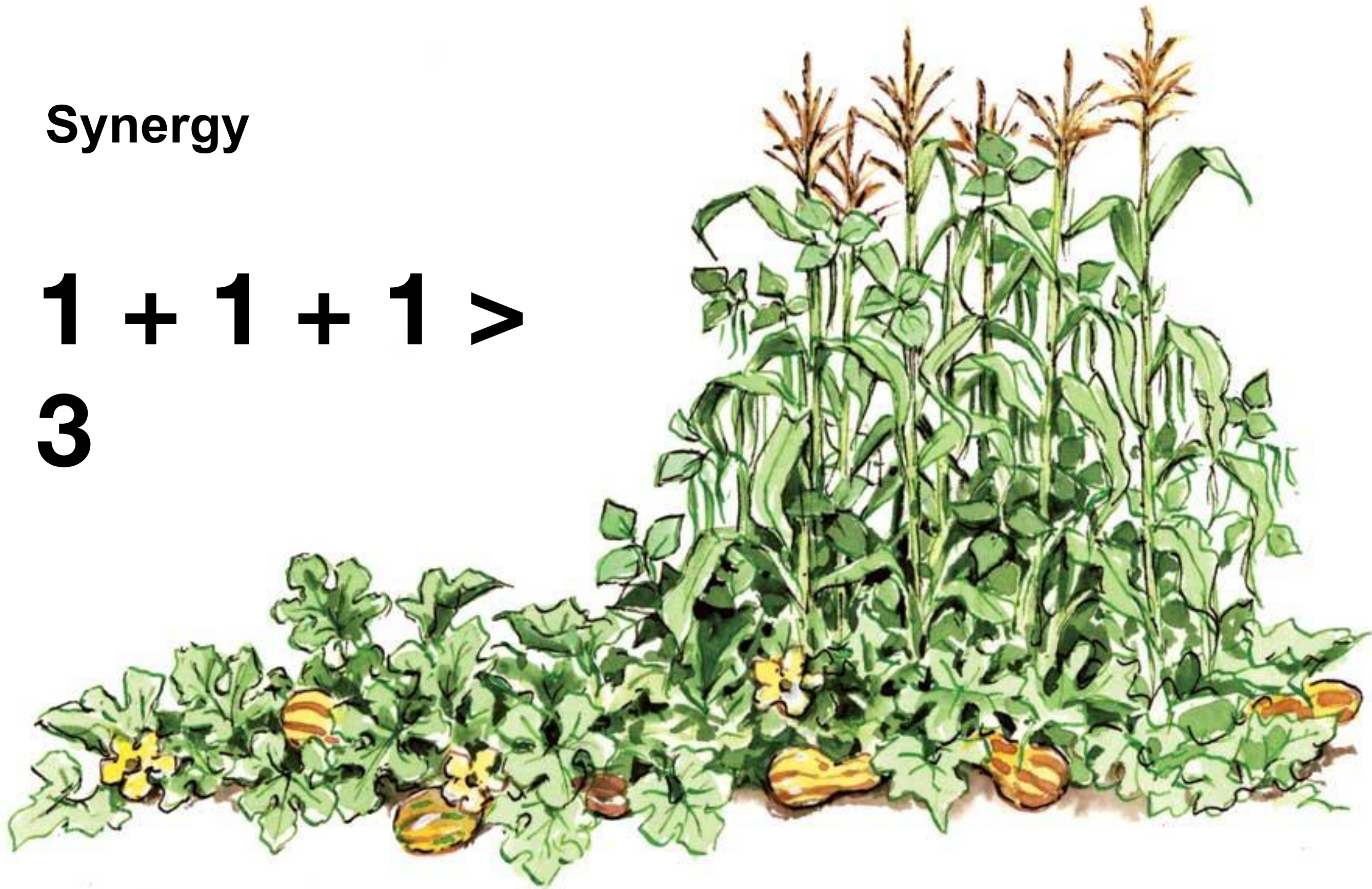
Boundries/Energy Flow



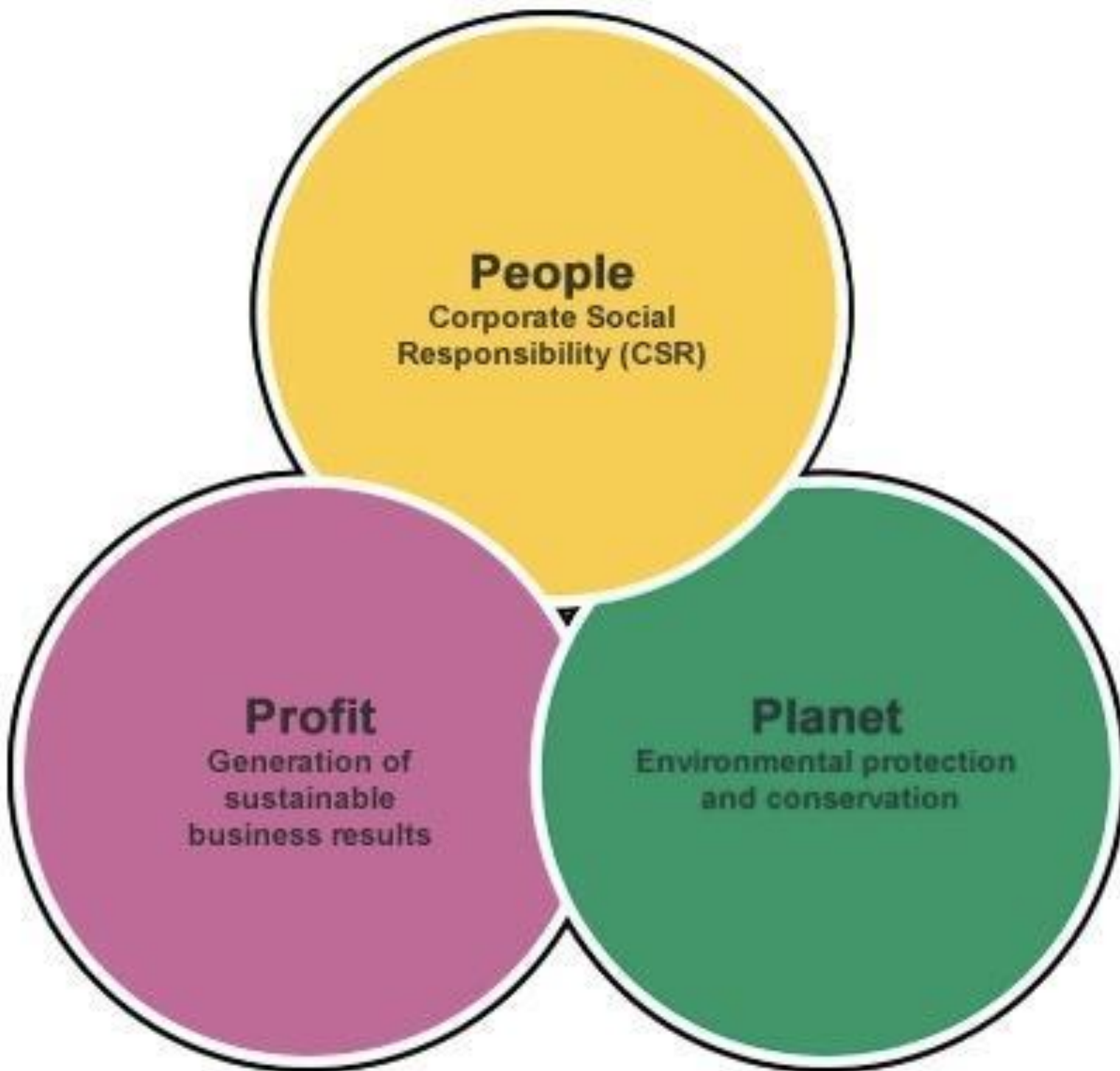
System

Synergy

$$1 + 1 + 1 > 3$$



Sustainable Agriculture is Regenerative





International Certification Services, Inc.

Certificate of Organic Operation

University of Hawaii, College of Tropical Ag &
Human Resources; Waimanalo & Poamoho
Research Stations
41-698 Ahiki St.
Waimanalo, HI 96795
UNITED STATES
Tel: 808-956-7909
theodore@hawaii.edu

Client ID Number: 1011116
Certificate Number: ICS-21631-2019
Effective Date: 09/21/2012
Issue Date: 03/12/2020
Last Inspection Date: 12/17/2019
Anniversary Date: 11/01/2020

Categories of Organic Operation: Crops

Certified Organic to the USDA National Organic Program



Certified Organic to the USDA National Organic Program regulations, 7CFR Part 205. Once certified, a production or handling operation's organic certification continues in effect until surrendered, suspended or revoked.

International Certification Services, Inc. (ICS Inc.), in granting this certification, warrants it has reviewed the above Certified Party's application, inspection, and other records and determines the products identified on the schedule are organically grown and/or handled in accordance with applicable USDA National Organic Program standards and regulations.

This certificate is not valid without attached Organic Certification Schedule.

Customers of the ICS client named on this certificate are encouraged to contact the ICS office to confirm the client's current certification status.

INTERNATIONAL CERTIFICATION SERVICES, INC.
PO Box 517/301 5th Ave SE, Medina, ND 58467, USA
(701) 695-2080 - Fax: (701) 695-2081 www.ics-intl.com

Christina Lockster

Vice President of Operations

03/12/2020

ICS Signature

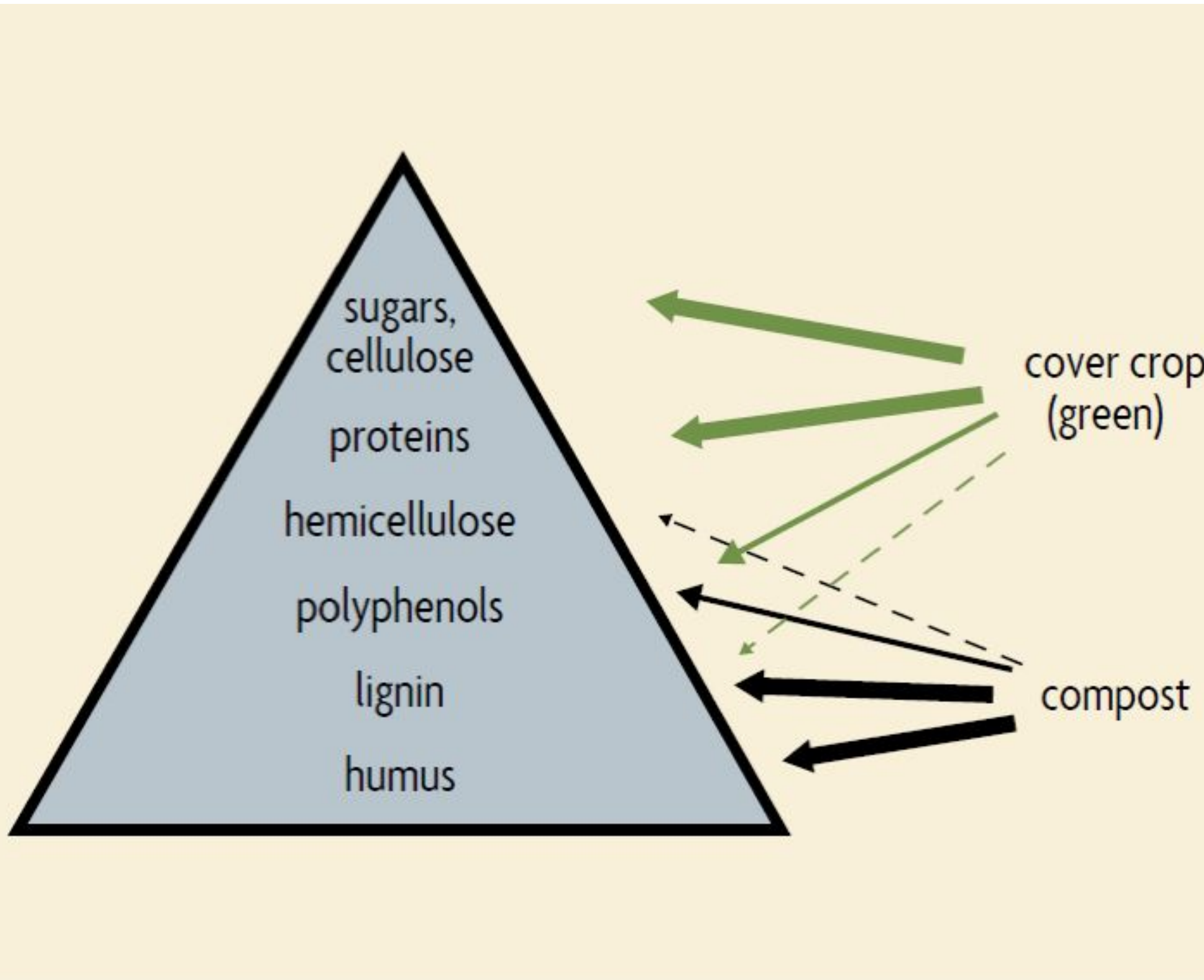
Title

Date

5-CE101
01/27/2020



Soil Health



<http://www.sare.org>



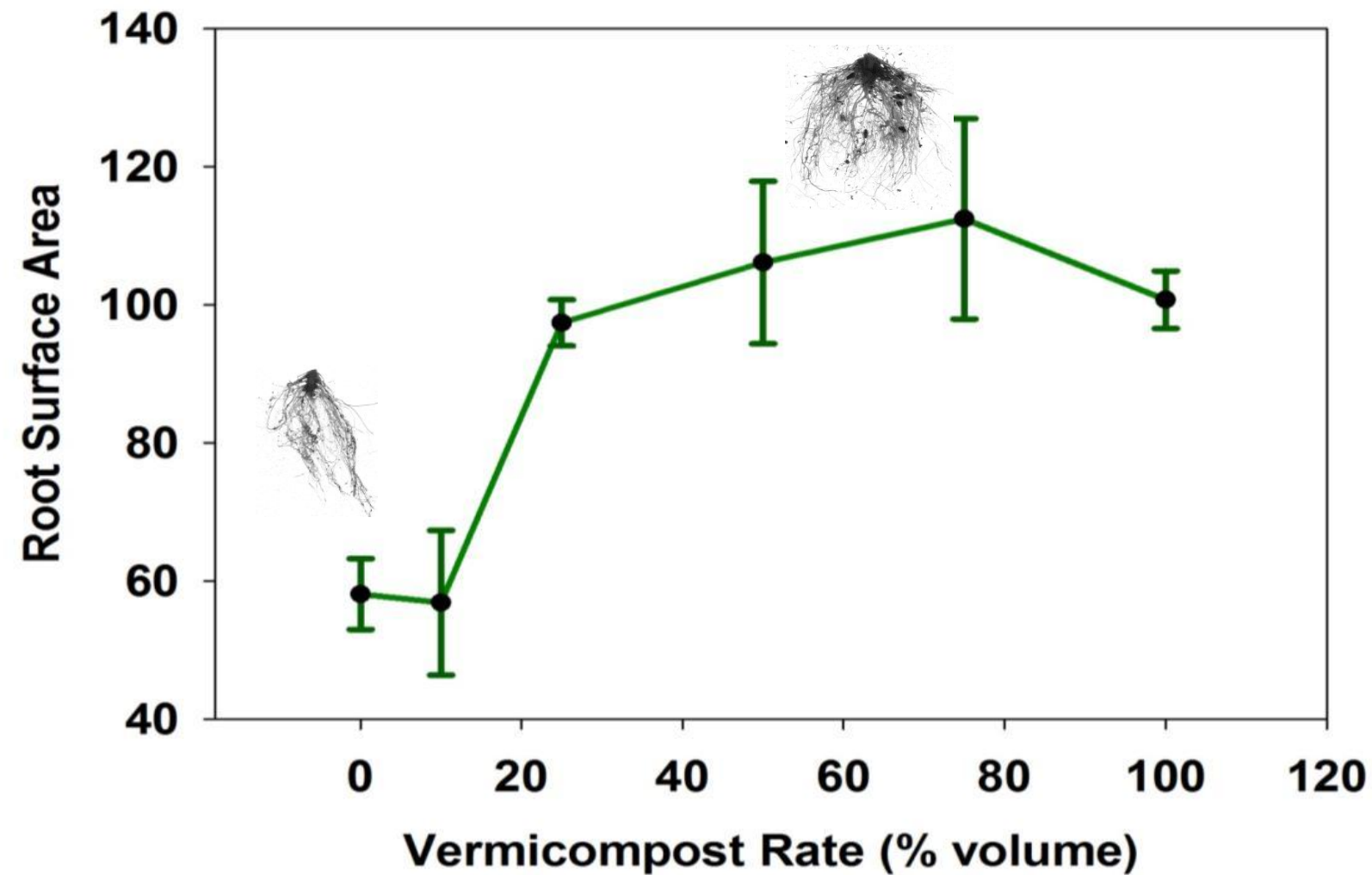
Compost- Quality Matters



Compost Quality Guide



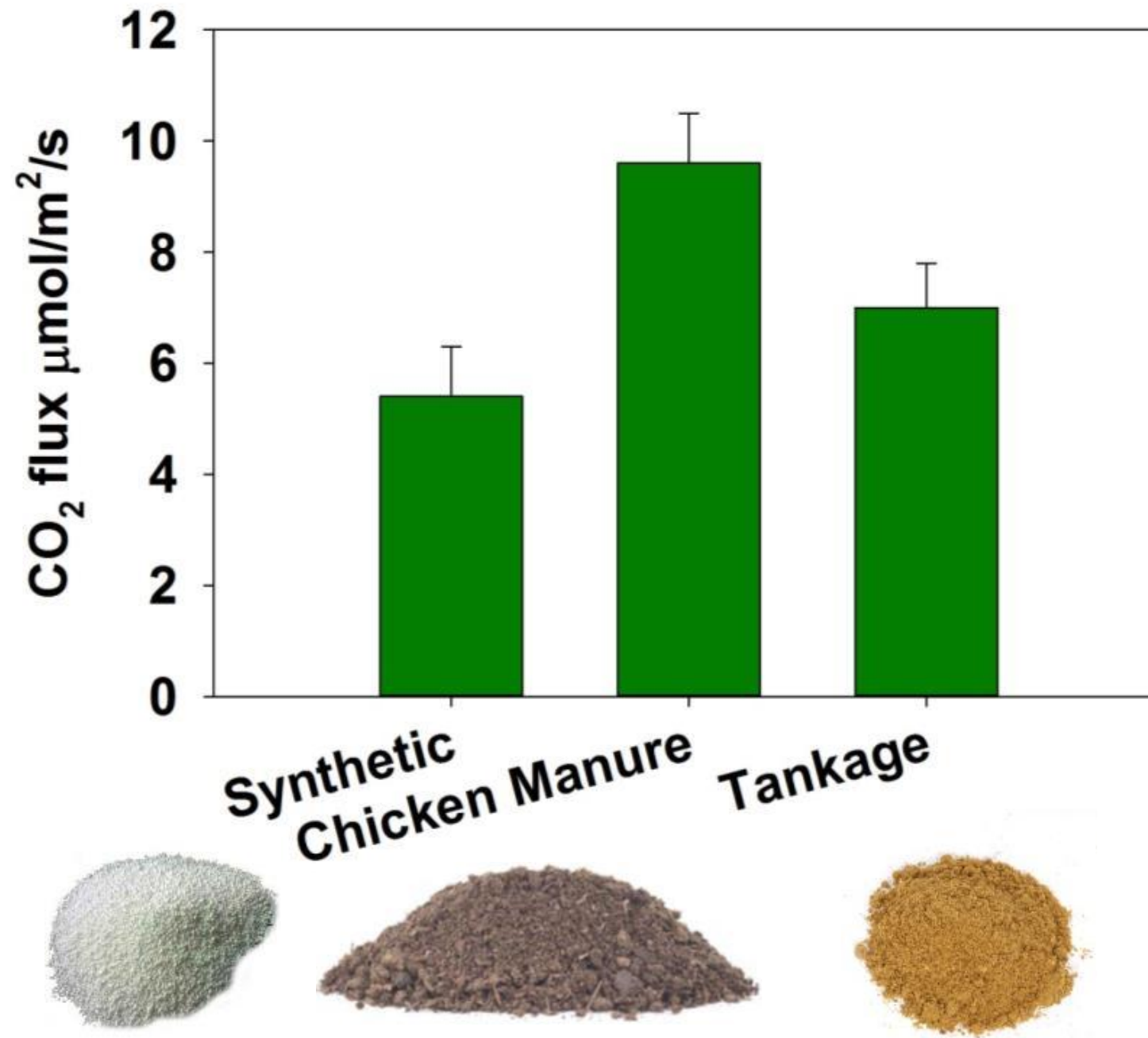
High Quality Compost in Seedling Media



HORTSCIENCE 47(12):1722–1728. 2012.



Soil Biological Activity by Fertilizer Type Applied @ 150 kg of Nitrogen per Hectare



150 kg N/ha

HORTSCIENCE 47(3):395–402. 2012.



Not all fertilizers are equal

Results of supplying 150 kg N/ha
using different fertilizers



Synthetic
16-16-16
16% N
<7% C

938 kg fertilizer per ha
66 kg carbon per ha



Composted
Chicken manure
3% N
~25% C

5,000 kg fertilizer per ha
1,250 kg carbon per ha



Tankage
Meat and Bone
10% N
~45% C

1,500 kg fertilizer per ha
675 kg carbon per ha





Spider and eggs on pak choi



Lacewing and aphid on eggplant



Braconid wasp stinging fruit fly larvae on guava



Hoverfly on *Bidens*



Sphecoid wasp nest



Ladybug



Parasitized scale

Preserving Natural Enemies

- Limit pesticide sprays
- Provide flowering plants





OMRI™

L i s t e d

Organic Materials
Review Institute



