

sustainability

ROY FARMS, INC.

“To consistently improve agriculture for the good of all stakeholders, without compromise”

Sustainability is not
new to the hop industry

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- Cost per lb
- Breeding
- Traceability
- Transparency
- Harvesting efficiency
- Kilning best practices

Sustainability is not
new to the hop industry



Having a wholistic approach is!

SUSTAIN*ability* - verb

INVESTING *in, and being*
held ACCOUNTABLE *for...*



	16 Major Standards	GlobalGAP	Life Cycle Assessments	Salmon Safe	Rainforest A	SCS-001	Ethical Trading Initiative	Common Code for the Coffee Community	Marine Stewardship Council	Basel Criteria	Roundtable on Sust. Palm Oil	SA8000	Fair Trade Standards	IDF	SAI	EISA	Utz Certified
Environment	Ecosystems & Biodiversity	✓	✓	✓	✓	✓		✓	✓	✓	✓		✓		✓	✓	✓
	Natural Resource Inputs	✓	✓	✓	✓	✓		✓		✓	✓		✓		✓		✓
	Manmade Inputs	✓	✓	✓	✓	✓		✓		✓			✓		✓		✓
	Energy Use & GHG Emissions	✓	✓					✓		✓			✓		✓		✓
	Waste Management	✓	✓	✓	✓	✓			✓	✓	✓		✓	✓	✓	✓	✓
	Production Practices	✓	✓	✓	✓	✓			✓	✓	✓		✓	✓	✓	✓	✓
Labor	Occupational Health & Safety	✓			✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓
	Terms of Employment				✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓
	Human Right in the Workplace				✓	✓	✓	✓		✓	✓	✓	✓		✓		✓
	General Employee/Family Welfare				✓	✓	✓	✓				✓	✓		✓	✓	✓
Economy & Community	Producers' Economic Viability					✓				✓	✓				✓		
	Flow of Economic Benefits				✓	✓				✓			✓		✓	✓	
	Social/Economic Rights of others				✓	✓		✓	✓	✓	✓						
	Business Ethics							✓		✓	✓						
	Education & Role-Modeling				✓						✓						✓
Safety & Quality	Traceability	✓	✓		✓	✓		✓		✓					✓		✓
	Hygienic Production & Handling	✓				✓				✓				✓	✓	✓	✓
	Quality of Inputs	✓								✓				✓	✓		✓
	Quality Management Systems	✓				✓		✓					✓				✓

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	Energy Use & GHG Emissions	✓	✓					✓		✓			✓		✓		✓
	Waste Management	✓	✓	✓	✓	✓			✓	✓	✓		✓	✓	✓	✓	✓
	Production Practices	✓	✓	✓	✓	✓			✓	✓	✓		✓	✓	✓	✓	✓
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	Quality of Inputs	✓								✓				✓	✓		✓
	Quality Management Systems	✓				✓		✓					✓				✓

Human & Food Safety

- ❖ GlobalGAP
- ❖ SQF
- ❖ HACCP
- ❖ FDA
- ❖ USDA NOP
- ❖ EPA
- ❖ Kosher
- ❖ OSHA
- ❖ L & I
- ❖ WSDA
- ❖ DOE

Community & Environmental Stewardship

- ❖ Biodiversity
Enhancement Project
- ❖ Salmon-Safe
- ❖ USDA NOP
- ❖ GlobalGAP
- ❖ Stewardship
Committee
- ❖ Corporate Social
Responsibility Report
- ❖ Full Spectrum LCA
- ❖ Science-Based
Irrigation Technology

Employee Empowerment Innovation & Creativity

- ❖ Surveys
- ❖ Employee Lead
Training
- ❖ Professional
Development
- ❖ Safety Committee
- ❖ Process
Improvements



GlobalGAP

- ◇ GlobalGAP
- ◇ SQF
- ◇ HACCP
- ◇ FDA
- ◇ USDA NOP
- ◇ EPA
- ◇ Kosher
- ◇ OSHA
- ◇ L & I
- ◇ WSDA
- ◇ DOE



Life Cycle
Assessment

- ◇ Biodiversity Enhancement Project
- ◇ Salmon-Safe
- ◇ USDA NOP
- ◇ GlobalGAP
- ◇ Stewardship
- ◇ Co
- ◇ Co
- ◇ Responsibility Report
- ◇ Full Spectrum LCA
- ◇ Science-Based Irrigation Technology



Stakeholder
Engagements

- ◇ Surveys
- ◇ Employee Lead Training
- ◇ Professional Development
- ◇ Safety Committee
- ◇ Process Improvements

Roy Farms Umbrella Program



Roy Farms Umbrella Program



Must be measurable and
auditable...

Global Food Safety

- Formerly EUREPGAP

*Safe, Sustainable Food
Production For: Farmers,
Retailers, and Consumers*

Most Widely Accepted Food Safety Certification in the World



Worker's Health and Safety

ICM

ICP

Animal Welfare

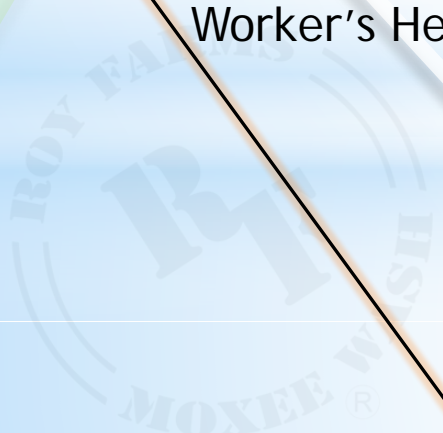
Environmental
Protection &
Biodiversity

Traceability

QMS

Quality Management

HACCP



PRODUCT LIFETIME

Environmental Impact Assessment

ISO 14044

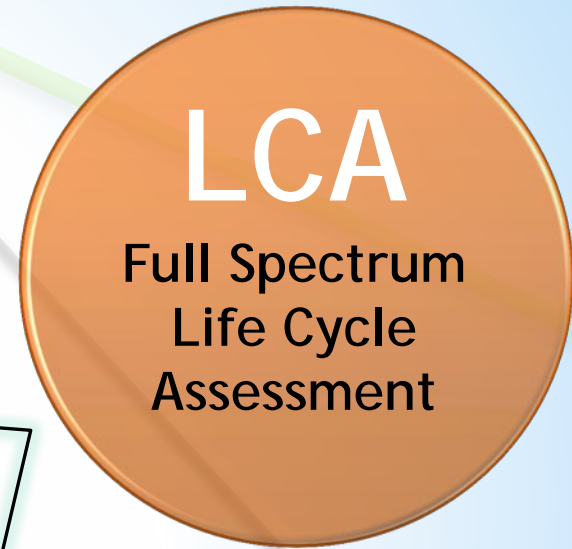
From “Cradle to Gate”

Input/Output Approach

Traceability

Resource
Consumption

Environmental
Emissions



Institute for Environmental Research and Education

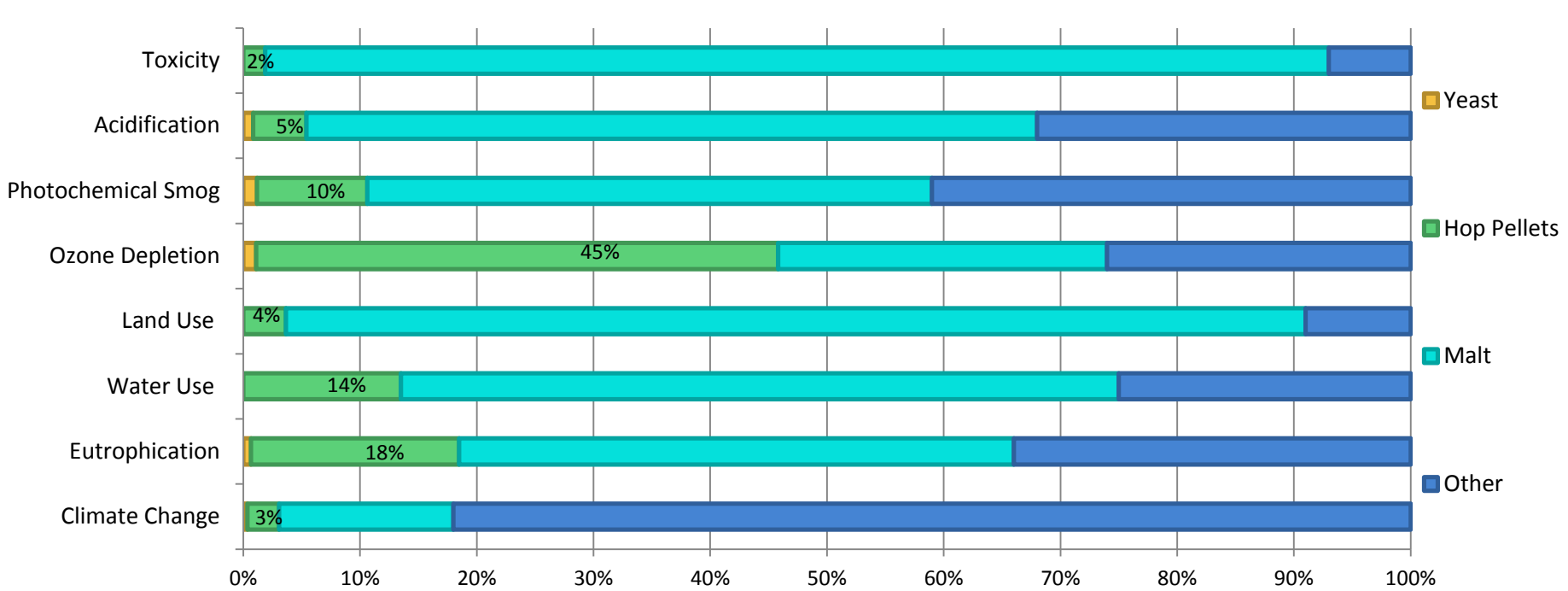


Institute for environmental research and education



Institute for environmental research and education

Ingredient Impacts of a Hypothetical Pint of IPA Beer:



IF YOU DON'T MEASURE IT, YOU CAN'T IMPROVE IT!

Impacts:

CLIMATE CHANGE

- Natural Gas
- Electricity
- Fossil Fuel

EUTROPHICATION

- Use of nitrogen fertilizers

WATER USE

Opportunities:

More efficient drying technology, renewable energy (solar), replacing inefficient or outdated fleet

Reducing over application of nitrogen based fertilizers

Continued investments with state of the art, science-based irrigation technology, and watershed conservation

Efficeint water usage

Target 30% more efficient per lb of hop

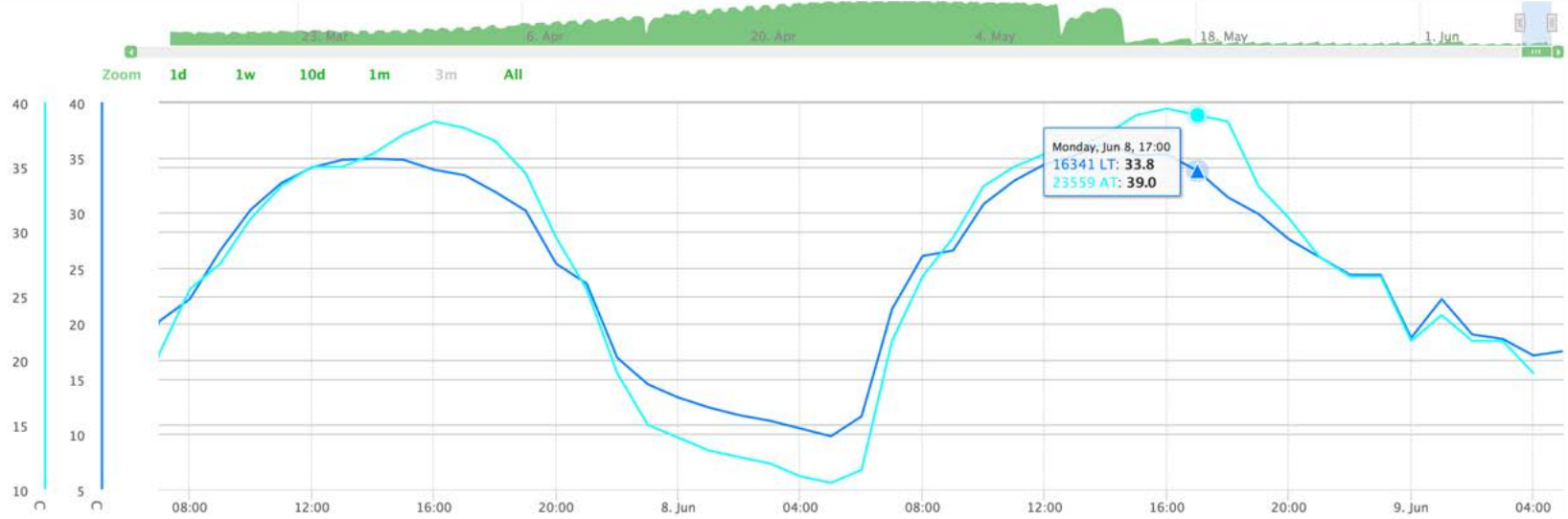
HOPS RH-50 ROY FARMS 2015

My Projects ▾

New LT+AT+TENS SD+SMS

SAVE

Plant Soil Climate Calculated



HOPS RH-44 ROY FARMS 2015

My Projects ▾

New LT+AT+TEN SD+SMS

SAVE

Plant Soil Climate Calculated



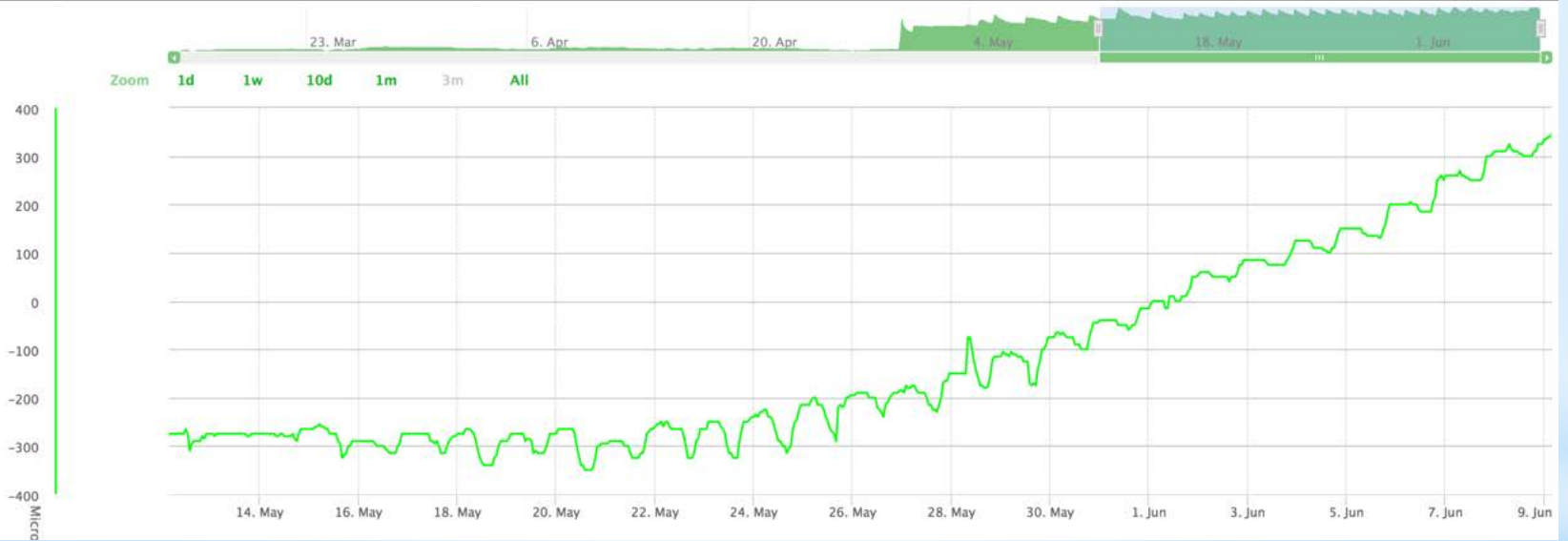
HOPS RH-44 ROY FARMS 2015

My Projects -

New LT+AT+TEN SD+SMS

SAVE

Plant Soil Climate Calculated



Stakeholder engagement



Stakeholder engagement

Who?

External (vendors and customers) and Internal (employees)

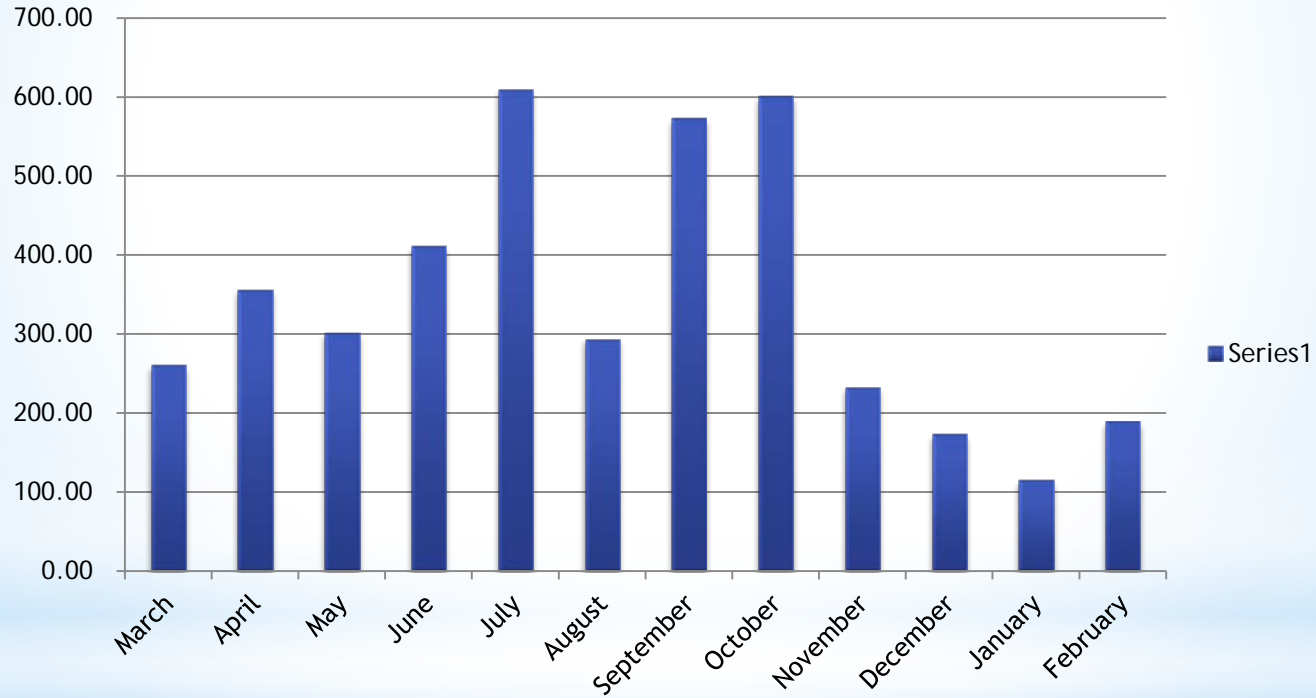
Which environmental and social issues were most important?

- Customer Health & Safety
- Economic Performance
- Non-discrimination
- Water
- Local Communities Impact

Results?

- 60% of suppliers and customers are more inclined to do business with RF if we make an effort to be more “green”
- 86% of suppliers and customers have interest in helping us make sustainability improvements
- Employees finding ways to discuss sustainability and implement it in their everyday jobs
- Employees recognize a “top-down” change, and the drive to thrive

Monthly Employee Numbers



Year Round Employee Feedback

- Walk the talk
- Mgt spend a day in the field
- Show examples of expectations
- Increase ownership involvement in message
- Employee of the month
- \$ Incentives
- Encourage to practice at home

German Gutierrez - 4 years

“Support companies with same morals, ask more questions, and communicate with others.”

Richard Rodriguez - 20 plus years

“Inform community of what they're doing and invite them to work within the environment.”

Narcisso Gutierrez - 50 plus years

“Make sure that the best person to do the job is hired and trained around sustainability for this.”

In other news:

- Office project (net zero, 5 star built green, indoor air quality)
- Targeting solar power
- 360 Reviews
- Energy recapture
- Reduction of nitrogen based fertilizers
- **Expanding picking capacity!**

It takes a community:



It takes a community:



Thank you for sharing
your time with us today.

CHEERS!