

Ogallala Aquifer

S U M M I T

APRIL 9 - 10, 2018 | GARDEN CITY, KANSAS

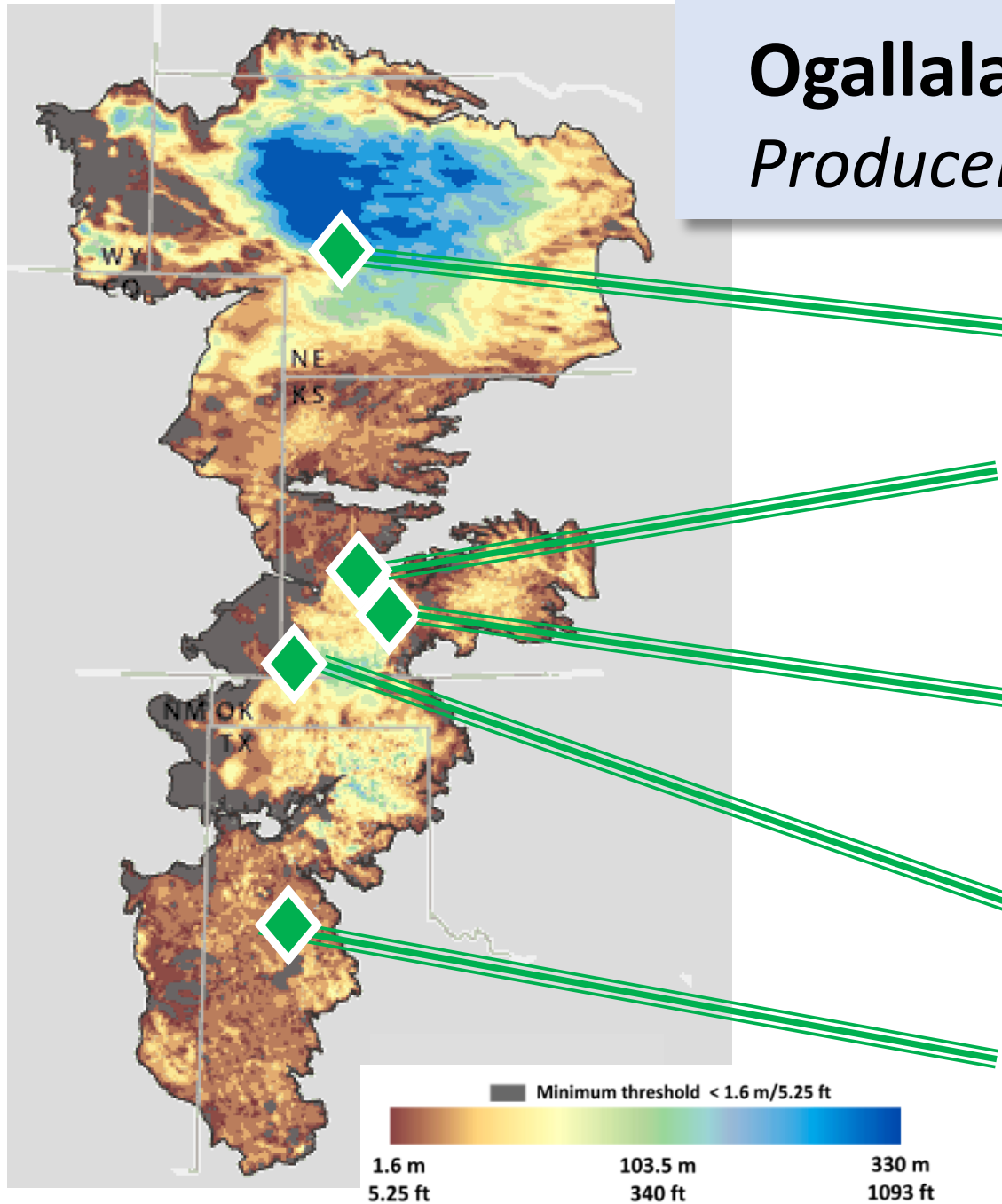
Producer Panel:

Water-wise strategies for sustainable production

Moderator: Tracy Streeter

Director, Kansas Water Office

Ogallala Summit *Producer Panelists*



Roric Paulman (Crops)
Sutherland, NE

Kyle Averhoff (Dairy)
Garden City, KS

Tom Jones (Cattle)
Montezuma, KS

Darren Buck (Crops)
Kansas & Oklahoma

Ronnie Hopper &
R.N. Hopper (Crops)
Petersburg, TX

Data/imagery for saturated thickness map (2015 estimates):
Erin Haacker/Lacey Moore

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Tom Jones

Managing Member of Hy-Plains Feedyard, LLC

Hy-Plains Education and Research Center

Montezuma, KS

The Hy-Plains Family



Rabo AgriFinance



K • C O E I S O M

RFI – Residual Feed Intake:



Represents the amount of feed consumed, net of the animals requirements of body weight and production. Efficient animals eat less than expected and have a negative or low RFI, while inefficient animals eat more than expected and have a positive or high RFI.

Benefits of selection for lower RFI in beef cattle:

- Reduction in feed intake by 10-12%
- Reduction in liver, stomach and intestinal weights
- 25-30% reduction in methane production
- 15-17% reduction in manure N, P and K production
- Efficient calves become efficient adults
- Progeny of low RFI cattle are more efficient (Agri-facts)

Future...

Increased In Weight / Shorter DOF

Feedyard COG \$0.75

Feedyard In Wt. 950#

Pasture COG \$0.45

vs 750#

$\$0.30 \times 200\# = \60.00 savings per head

Reduction of water used out of the Ogallala Aquifer

Increased forage utilization

HPFY

Tying it all together.....

Sustainability

- Predictability: Produce wholesome consistent product beginning at conception
- Traceability
- Management / Marketing Strategies
- Increased efficiency and performance reduces environmental footprint

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Roric Paulman, Paulman Farms

*8,500 acre farm near Sutherland, Nebraska
Chair, the Nebraska Water Balance Alliance*

Producer Driven Solutions



- 8000 acres
- 11 land use treatments (native range, irrigated, rain-fed crops, CRP)
- Testing advanced agronomic equipment and processes to conserve water

PRODUCTION

Weather
Stations

Field Sensors

Equipment
Tools

Scouting
Devices

*ON-SITE
MONITORING*



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*OFF-SITE
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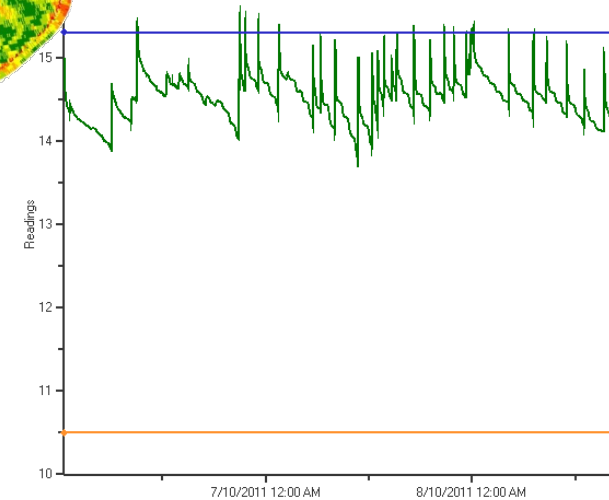
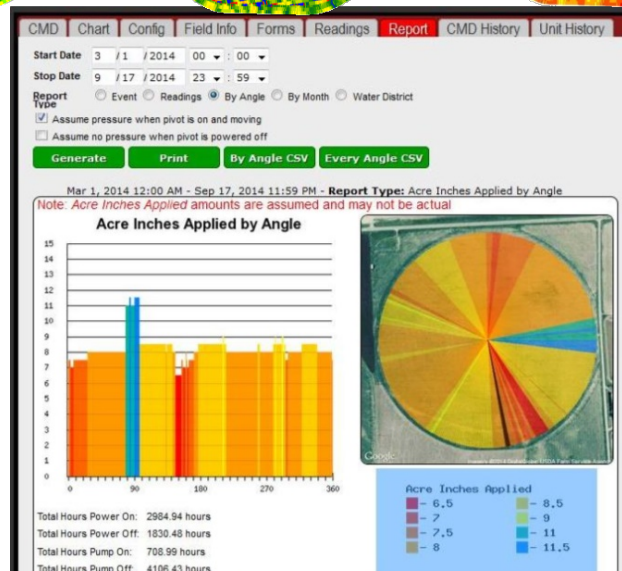
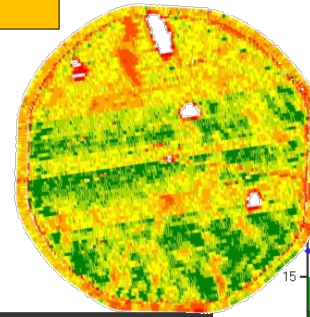
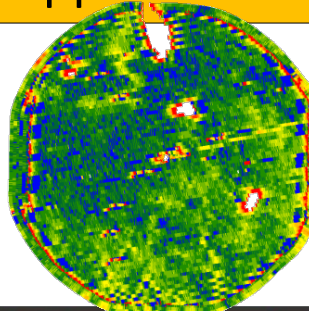
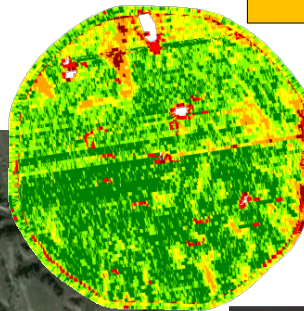
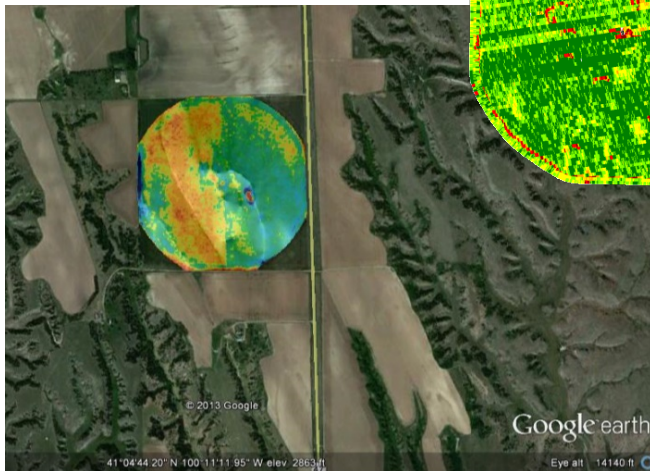
Weather
Soil
Imagery

Field Data/Alerts

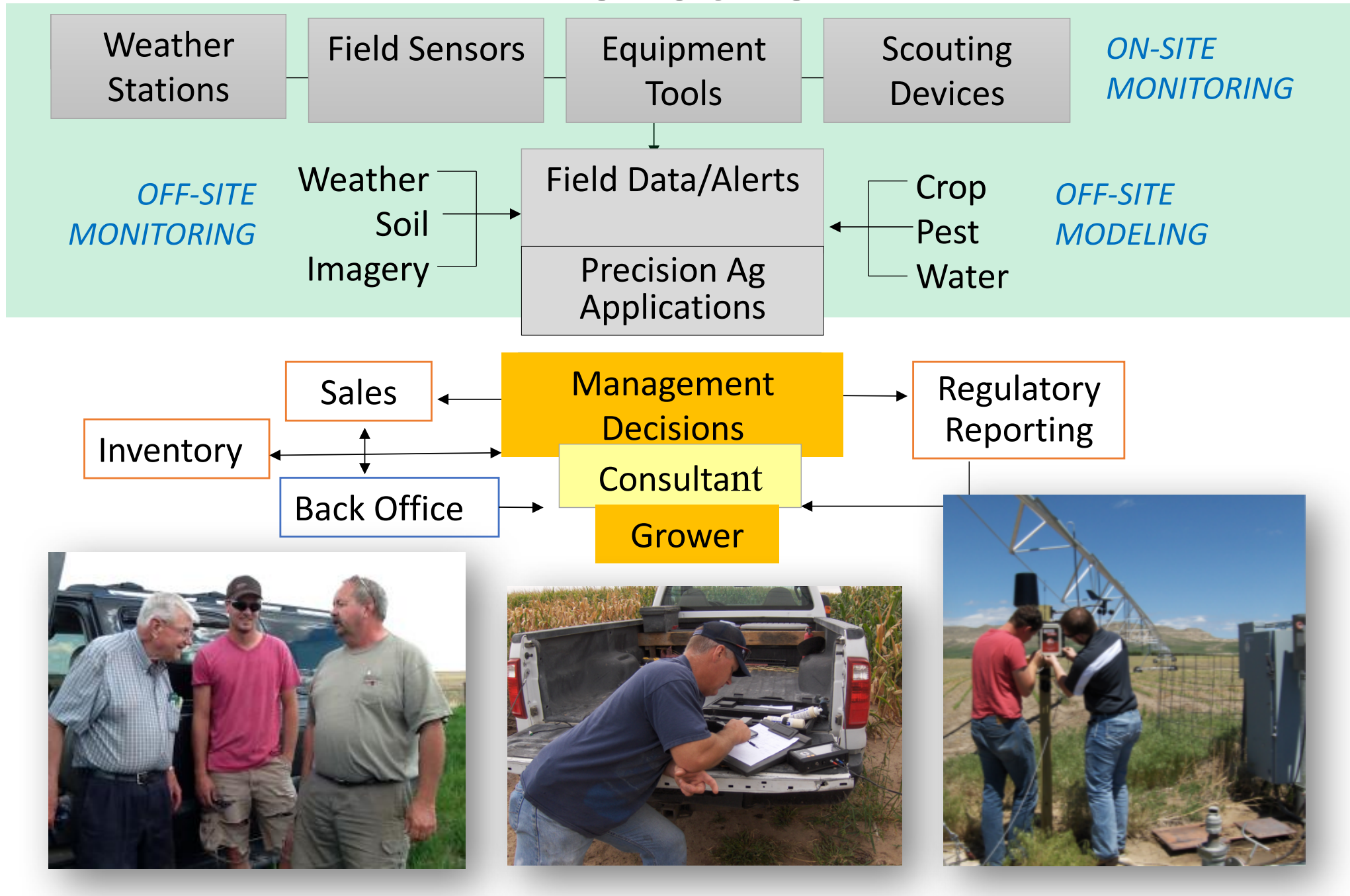
Precision Ag
Applications

Crop
Pest
Water

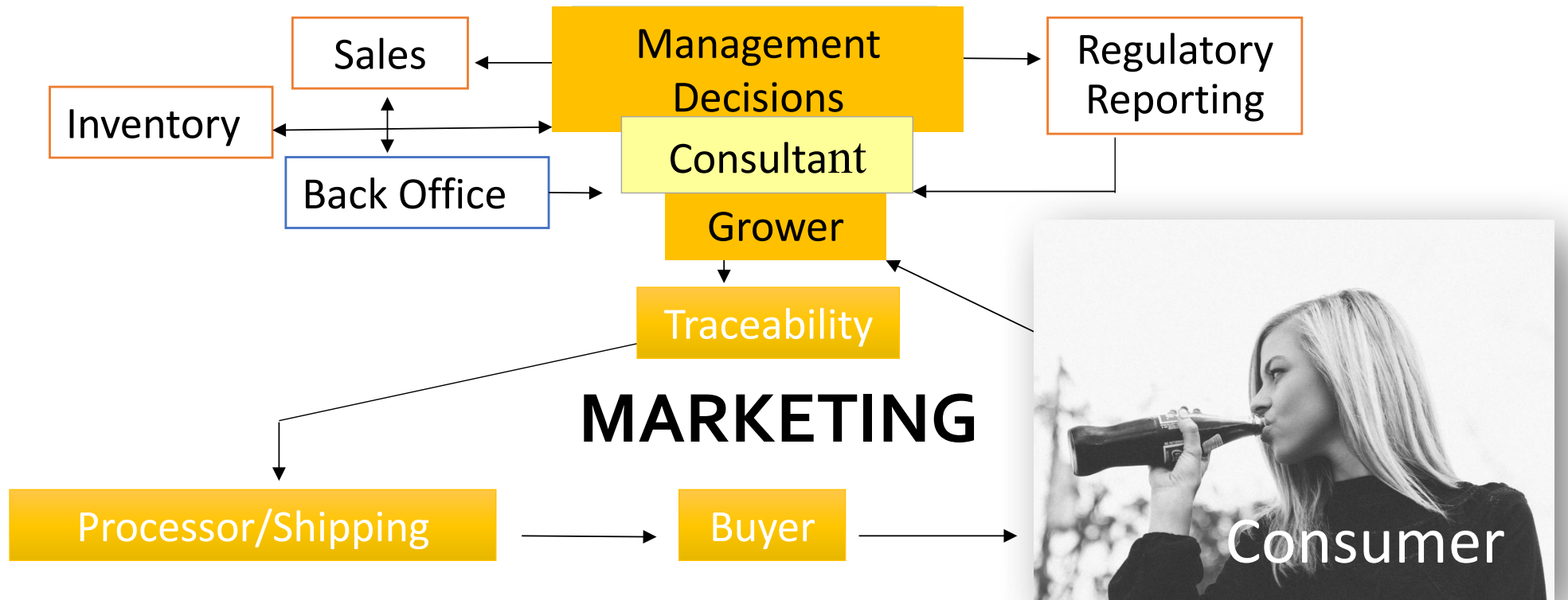
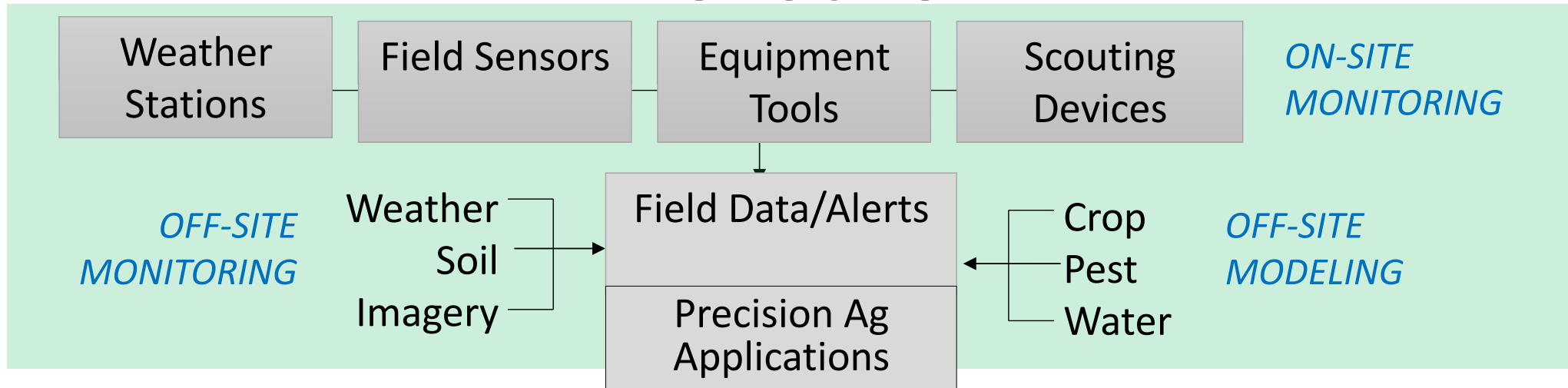
*OFF-SITE
MODELING*



PRODUCTION



PRODUCTION



A Strategy for the Future

Forging
a comprehensive strategy
for long-term sustainability

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Kyle Averhoff

General Manager and Managing Partner,
Royal Farms Dairy
Garden City, KS



About Royal Farms Dairy

- ❑ Established in November of 2000
- ❑ Located in the Western Kansas
- ❑ Ownership Consists of 6 Partners
- ❑ Expanded the Operation to 2 Sites in 2014
- ❑ Milking 9300 Cows
- ❑ 10000 Self-Raised Heifers
- ❑ Involved in Crop Production & Milk Processing

Water Story

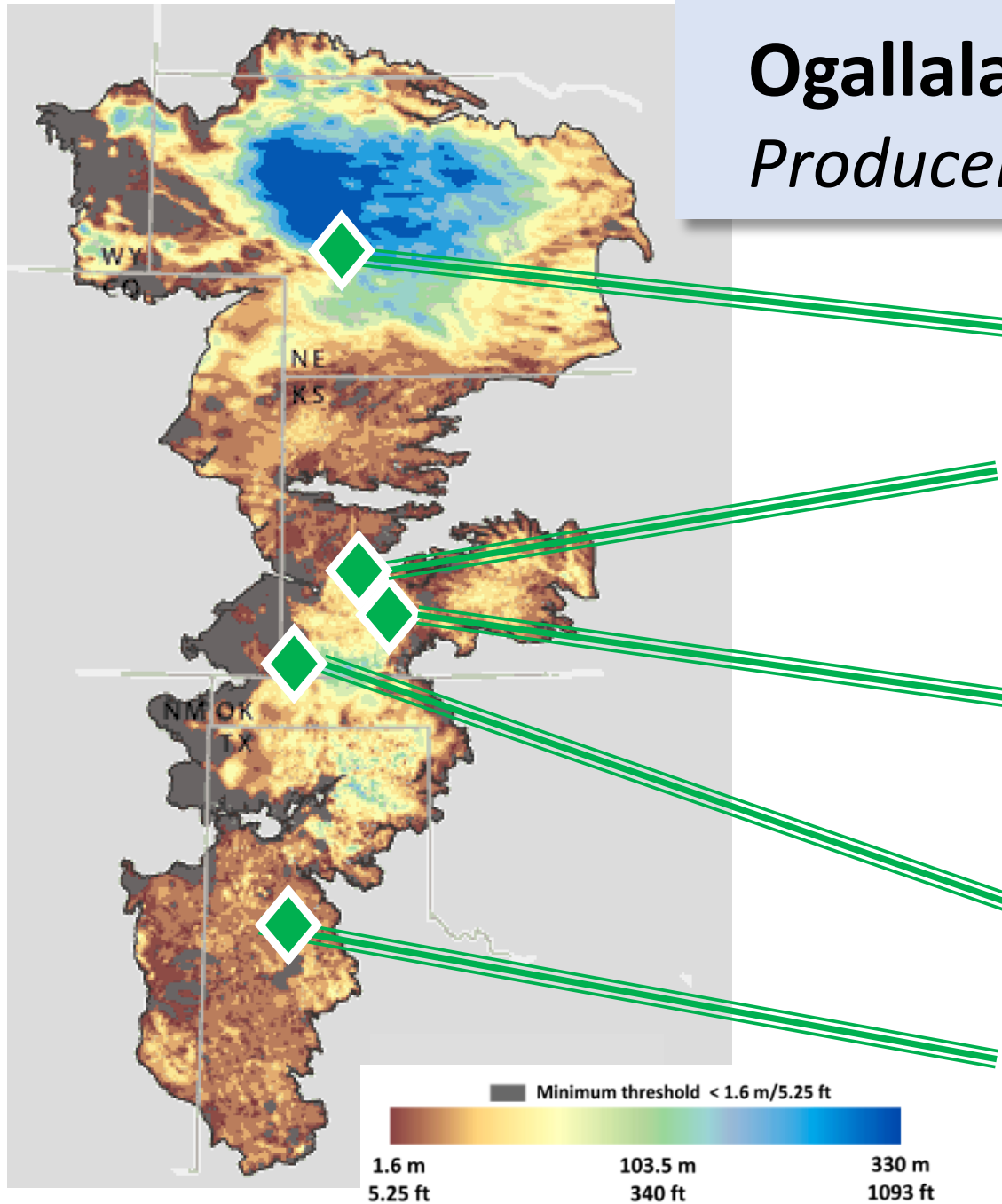
- ❑ Saturated Thickness at Royal is 75-120' with Annual Depletion of 1.5-3' per Year
- ❑ Saturated Thickness at Noble is 200-300' with Annual Depletion of 3-5' per Year
- ❑ Annual Water Pumping for 2 Dairies around 900 AF
- ❑ Annual Lagoon Pumping for 2 Dairies around 650 AF
- ❑ De-Watering Across 3600 Acres (2.2 Acre Inches/Acre)
- ❑ Net Water Consumption for Milk Production Equivalent to 1.5 Circles of Corn



Water Strategy



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