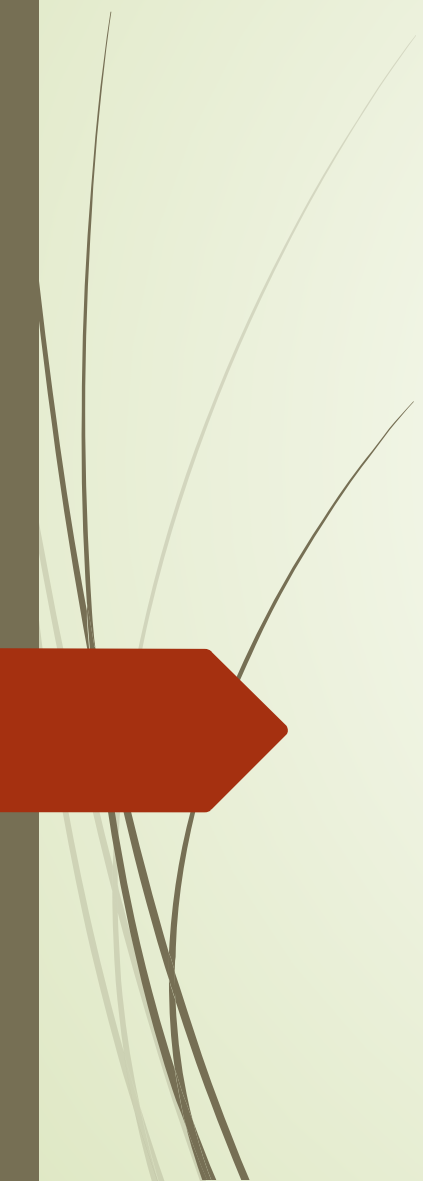


# Precision Ag Overview

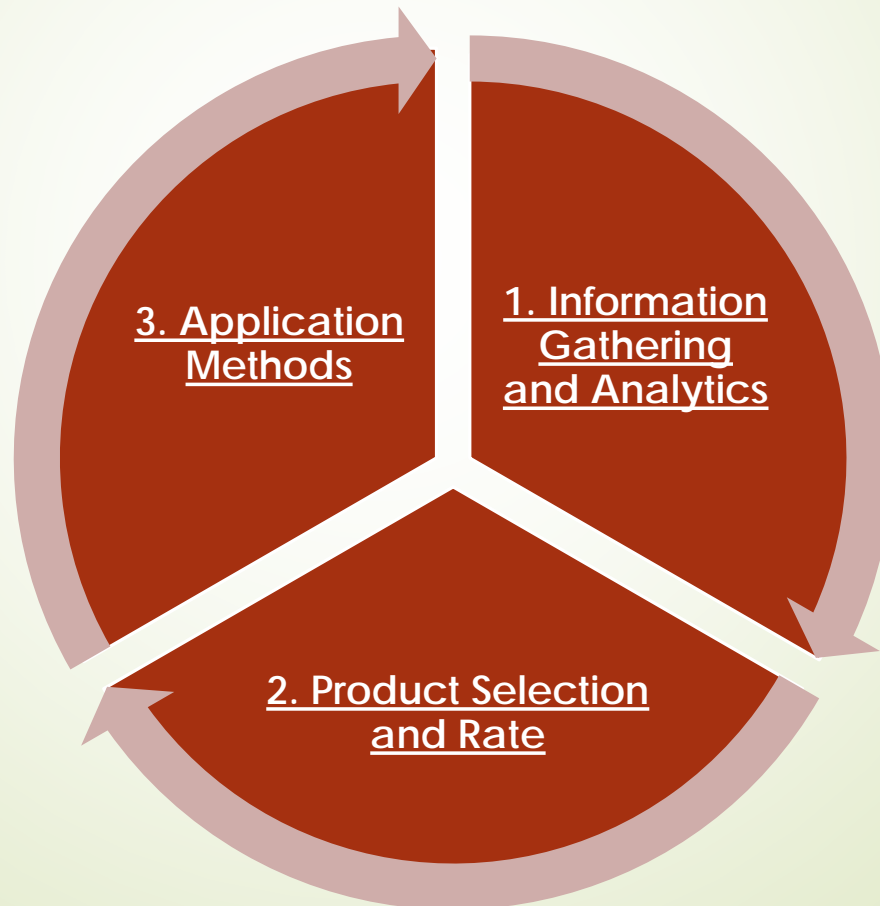


Bill Hubbell  
Western Area Manager  
Valley Agronomics  
Mt Angel, Oregon

***Precision Ag***: Simply defined, as technology gets better and cheaper, a management practice that gives the ability to manage smaller and smaller areas based on variability

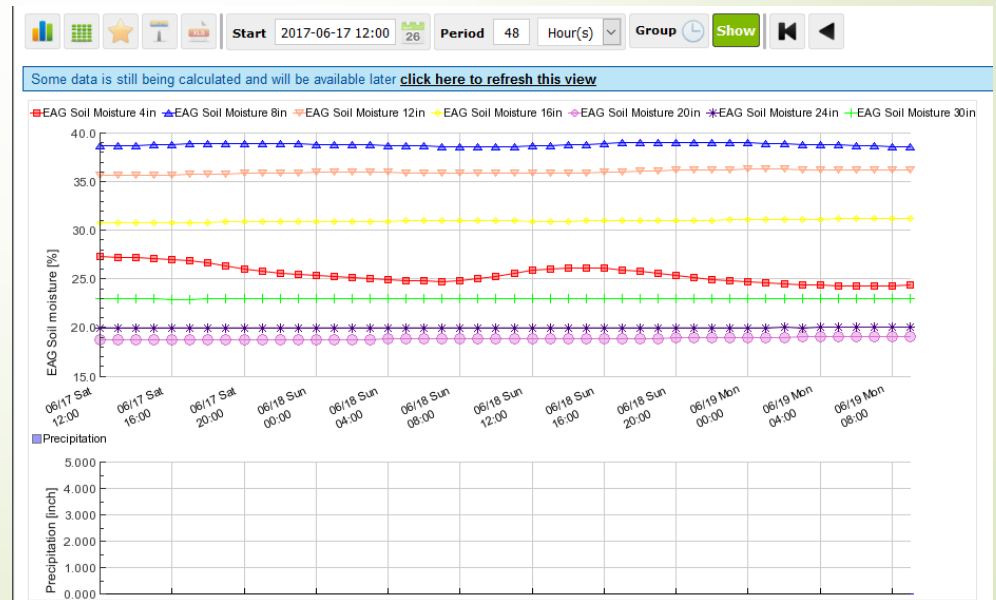
**Farm > Field > Zone**

Three  
general  
areas  
involved



# Information and Analytics

- Sources:
  - Scouting (boots in the field)
  - Soil and tissue testing (laboratory)
  - Field history
  - Yield data
  - Aerial imagery (satellite, fixed wing, UAV)
  - Field Monitoring Stations



# Product Selection

- Criteria considered
  - Correct, legal and registered labels
  - Management goals
  - Certifications desired (Salmon Safe, Organic, Food Alliance)
  - Beneficial's present
  - Environmental considerations (water, sensitive crops, bees, temperature)
  - Cost/acre

## Actual: Sucker control

**Created:** May 08, 2017  
**Assigned:** May 06, 2017  
**Started:** May 06, 2017 09:00  
**Completed:** May 06, 2017 13:00  
**ID:** 557350

**Created By:** Bill Hubbell  
**HUBBELL WILLIAM & SANDRA**  
**5720 HOMESTEAD WAY SE**  
**AUMSVILLE, OR, 97325**  
**Phone: +15035598572**

**Grower:** HUBBELL WILLIAM & SANDRA  
**5720 HOMESTEAD WAY SE**  
**AUMSVILLE, OR, 97325**  
**Phone: +15035598572**

Operator	Operator Company	Phone	Address	Licenses
Bill Hubbell	HUBBELL WILLIAM & SANDRA	+1-503-559-8572	5720 HOMESTEAD WAY SE, AUMSVILLE, OR 97325	

FIELD	Crop & Variety	Field - Acre	Activity - Acre
Hubbell Family Farm			
Homeplace	Hazelnut - Jefferson	23.41	23.41

PROBLEM	Severity
Canada thistle	medium
Wild carrot	medium
Chamomile	medium
Filbert Sucker	low

INPUTS	Rate	Per 100 gal
<b>Rely 280 Herbicide</b> (EPA# 264-829) Glufosinate - ammonium: 24.5%	22.55 floz/acre	1.88 gal
<b>Saber Herbicide</b> (EPA# 34704-803) 2,4-D present as the dimethylamine salt: 46.6%	0.47 qt/acre	1.25 gal
<b>Agrisolutions Preference</b> Alkyl phenol ethoxylate, sodium salts of soya fatty acids, isopropyl alcohol: 89.5%	1 qt/100gal	0.25 gal
<b>InterLock</b> Modified vegetable oil, polyoxyethylene sorbitan fatty acid ester, vegetable oil: 100%	1.88 floz/acre	0.16 gal

ADDITIONAL INFORMATION			
<b>Water rate:</b>	9.4 gal/acre	<b>Application Method:</b>	Boomspray
<b>Total Field Area:</b>	23.41 acre	<b>Nozzle:</b>	Coarse
<b>Activity Area:</b>	23.41 acre		
<b>Total Volume:</b>	220 gal		
<b>Total Cost Per Area:</b>	\$0.00 /acre		
<b>Total Cost:</b>	\$0.00		

WEATHER		
<b>Temperature:</b>	<b>Humidity:</b>	<b>Weather Conditions:</b>
55 °F		sunny



# Application Technology

## The '4 R's'

- Right Place: Auto-steer, anti-drift nozzles, drift reduction products, pressure regulation
- Right Rate: Computer driven variable rate capability to apply more or less depending on need
- Right Product: From product selection process
- Right Time: Based on knowledge and collaboration for effectiveness
- On board systems control overlap and amount applied, while capturing actual field record of application





## Variable rate nitrogen modeling

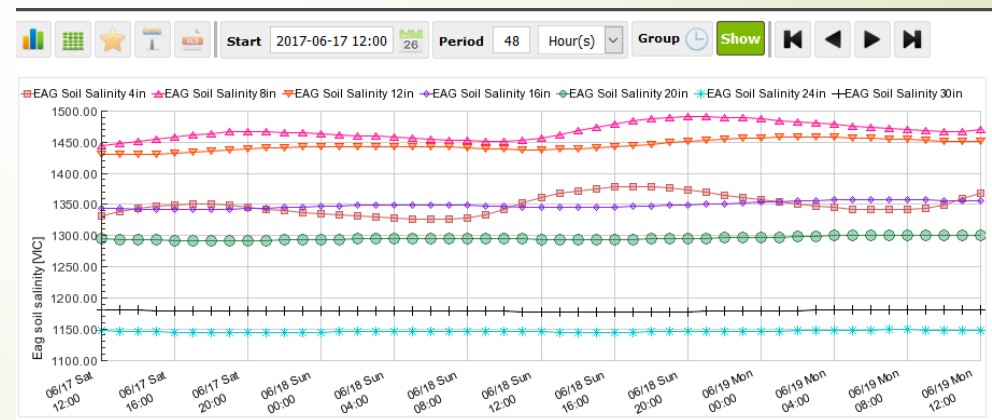
On the Horizon.....



## Unmanned equipment



## See and spray technology



## Salinity monitoring for soil nutrient movement tracking





# Thank you

Bill Hubbell

Western Area Manager

Valley Agronomics, Wilco Farmers Co-op

[Bill.Hubbell@valleyag.com](mailto:Bill.Hubbell@valleyag.com)

503-559-8572

