# Precision Agriculture

Ben Garton
Garton Tractor, Inc.



#### Ben Garton

- Graduated from University of Alabama in 2007
- General Manager Garton Tractor, Inc. Newman, CA
- Largest Precision Ag Dealer for New Holland NA
- Family owned since 1954
- 7 Locations in California from Ukiah, CA to Tulare, CA
- Maven Precision Farming Consultants
  - Travelled to North Dakota, Nebraska, Mississippi,
     Tennessee, Oregon, and Minnesota

### **WAAS Applications**

- Broad Acre Applications
  - Tillage
  - Yield Mapping





- Handheld Data
   Collection
  - Pest Maps, Acre
     Calculations, Soil
     Mapping, Conductivity
     Mapping, etc.

## **SBAS Applications**

- Satellite Based Augmentation Systems
  - Popular where other corrective means such as VRS or RTK are unavailable
  - Popular with Custom Applicators
  - Covers a broad area with no need for a base or network coverage



- Several Forms of RTK
  - Single Base
  - Network (Trimble VRS / Topnet / Leica)
  - Single Base "CORS"

- "Sub-Inch" RTK Applications account for roughly 90% of our sales
- Necessary for:
  - Water Management



- Listing / Furrowing of Ground
  - Growing due to increased plant population due to lack of "guess row"
  - Required for Drip Tape Irrigation

Video of Drip Tape Installation



- Custom or Precise Guidance
  - This is a custom autopilot for a 8ft wide vineyard.





# Where the industry is going

- Past systems were about Guidance
- Current Hot Topic is Variable Rate
- Future?
  - High Speed Data Transfer in Cab
  - Access to Internet
  - Live Remote Troubleshooting
  - Better Asset Management and Job Queues
  - Telematics or Rover to Rover Communication

# Automation in Agriculture

Kinze Automated Planting