BREEZY HILL AG

USING PRECISION AGRICULTURE TECHNOLOGIES TO EVOLVE A FARMING BUSINESS AND IMPROVE PROFITABILITY
WHO AM I?

• Mum of Charlie and Ted
• Wife of Joe
• Farmer/Director of Breezy Hill Ag
• Precision Ag Consultant at Insight Ag Solutions
• President of the Society of Precision Agriculture Australia
BREEZY HILL AG

• Location: Booleroo Centre and Georgetown
• Farm Size: 1800ha
• Sixth generation farmer
• Enterprises: Wheat, barley, canola, legumes (peas, beans), vetch
• Merino Sheep – 1200 self replacing ewes
• Personnel: Joe & Jess, Robert & Joyleen
• Yield: Average wheat yield 3-3.5t/ha over both properties
WHERE HAVE WE COME FROM?

PA Application
- 2008 RTK GPS Guidance and Autosteer
- 2008 EM Soil Maps
- 2008 Yield Mapping
- 2010 Variable Rate Fertiliser
- 2013 Vegetation (NDVI) Images
- 2014 Remotely piloted aircraft (RPA)
- 2017 Variable Rate Lime
Gamechangers

Our ‘catalysts’ for starting with Precision Agriculture

• RTK Autosteer
  • Base Station network
  • GPS accuracy has unlocked opportunities
    • Inter-row sowing
    • Boundaries

• Recording Yield Data
  • Processing data
  • Understanding the drivers
  • Software that allows you to ‘stack’ data
Other handy tools

There is a line between ‘need to have’ and ‘nice to have’

• Quadcopter
• Live weather station on harvester and sprayer
• ‘Over the air’ prescriptions
Making use of ‘the Cloud’

- Weather Stations
- John Deere Operations Centre
- JDLink
- AgWorld
- PCT AgCloud
BETTER DECISION MAKING

- Targeting Lime
  - pH mapped Georgetown
  - Extreme variations 3.9-8.9
  - Simplified maps into 4 rate zones
  - Varied the rates from 0-3t/ha depending on the lime requirement
  - On this property, resulted in a saving of $16,730
CAPITAL PURCHASES

• Advisory board – ‘keeps us honest’

• Examples
  • MAV Chopper
  • Machinery Purchases now have non negotiables
    • TopCon Steer - X30
    • TopCon Control
    • Controlled traffic (3m)
    • Telematics are a bonus
Farming Smarter

- Discovered frosted peas were undeliverable in the centre of the field
- Identified frosted zones via and NDVI Map
- Rather than the bulk of the field undeliverable, managed to get all the peas in the red area through the silo system
- Able to get $8000 peas through by selectively harvesting
- The sheep got the rest
• Post harvest declaration insurance
• Hail damaged canola in 2016
• Yield maps (along with assessments) were able to quantify the extent of the damage
• Significantly better payouts as a result
GROSS MARGIN MAPS

- Gross Margin Maps
- Simple way to distinguish whether more inputs resulted in more $$
- Important to continually assess
- Can run a simulator, either before or after growing season
- Cause affect, cause affect
- Go from having data, to actually having knowledge and wisdom
- Return on investment of the input is assured
- Allows us to accurately budget
- MAKING INFORMED DECISIONS
THE FUTURE

- Better manage our sheep flock (more strategically)
- USB Free Precision Ag
- Controlled Traffic Farming
- Protein Mapping
- Human resources – grain truck plus app, Safe Ag Systems App
IS PRECISION AG PROFITABLE?

• Will it make an operation simpler?
• Will it make us more efficient?
• Will it enable us to increase our gross margin/ha?
• Will it help us manage risk?
• Preserve a resource

THEN YES!!!!

Its not about being exact, its about being able to move forward
Make more informed decisions, understand variability
Evaluate and come to a conclusion quickly