



**RANCH SYSTEMS**

# TECHNOLOGY FOR AG & WATER MANAGEMENT

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## TECHNOLOGY

Before you become too entranced with gorgeous gadgets and mesmerizing video displays, let me remind you that information is not knowledge, knowledge is not wisdom, and wisdom is not foresight. Each grows out of the other, and we need them all.

Arthur C. Clarke  
(1917-2008) Author



## PROBLEM

### **MOTHER NATURE**

Agriculture is at the mercy of the environment. Variability from year to year can not be controlled.

### **COSTS**

Agriculture markets are global. Managing costs are an ongoing challenge.

### **FINANCIALS**

Funding institutions, processors, export contracts, etc. are all looking for data to validate and support future commitments.

### **CUSTOMERS**

Marketing is driving a messaging to fill a perceived requirement from consumers forcing a traceability chain.

### **REGULATORY**

Agriculture is faced with more and more regulatory challenges. Data is both the defense and the offense strategy.

### **WATER MANAGEMENT**

Constraints from water availability, water quality and government regulation.



## SOLUTION

### CLOSE THE GAP

Technology documents events and actions required in today's production agriculture.

### COST SAVINGS

Refining crop inputs, managing labor, maximizing equipment, water management and risk mitigation.

### TARGET AUDIENCE

Growers, consultants, processors, consumers, regulators, water management institutions, financial and insurance institutions.

### EASY TO USE

Remote monitoring and optional control solutions have evolved providing anytime, anywhere access and flexibility.

## ROI VS RISK



## par·a·digm shift

*/ˈperəˌdīm SHift/*

a fundamental change in approach or underlying assumptions.

A landscape of rolling green hills under a cloudy sky. The foreground is dominated by tall, green grasses. In the middle ground, there are several rows of crops, possibly corn, planted in a grid pattern. The background shows more rolling hills and a few scattered trees. The sky is filled with soft, grey clouds, suggesting an overcast day. A central text box with a thin black border contains the text "IT IS TIME TO CHANGE" in a bold, white, sans-serif font.

**IT IS TIME TO  
CHANGE**



## BUSINESS MODEL

### **DOCUMENTATION**

Automatically document events and activities.

### **IN-SEASON DECISIONS**

Real time data provides the ability to adjust decisions and actions

### **KNOWLEDGE OVER TIME**

Ability to review year over year to identify opportunities to adjust future in-season decisions.

## SUMMARY

All sectors of agriculture production are facing new challenges. By adopting and using agriculture technology you will have the tools to help navigate the world we are now in.

## HARDWARE KEY POINTS

### Ruggedness!

- Enclosures – focus on metal for key wear parts
- Water Resistance – IP67 and GoreTex venting
- Cabling is burial grade
- Connectors are factory over-moulded

### Minimal Downtime

- Solar Power
- Amble backup capacity in batteries
- Amble sensor data backup in flash storage

### Serviceability

- Modular PCBs (e.g. modem boards) for ease of service and upgrade flexibility
- Firmware upgrades “over-the-air”
- Remote diagnosis and troubleshooting

### Flexibility

- Support for customizing units to special sensors and controls
- Anytime, anywhere access with dashboard and reporting options and customizing ability.



## PLATFORM KEY POINTS

### Compatible Sensors

- Soil Moisture, Temperature, Salinity
- Weather – Sensors and Calculated Decision Values
- Water Management – Flow Meters, Pressure, Water Level

### Serviceability

- Modular (e.g. modem boards) for ease of service and upgrade flexibility
- Firmware upgrades “over-the-air”
- Remote diagnosis and troubleshooting

### Privacy and Security

- Unlimited Data Storage that YOU Own
- Storage is at redundant at geographically separated sites
- Data is not aggregated, shared or resold

### Data You Need the Way You Want It



# THANK YOU



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