

Vineyard Information Technology

Making *Profitable* Decisions

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IT will change farming

- What is Vineyard Information Technology?
- What is valuable IT?
- What can it be used for?

“We have reached the level of sophistication in this country where everybody is making a profit on agricultural commodities except the farmers who produce them.”

Tuskegee Professor

What is Vineyard IT?

Information Technology is any hardware or software tool that acquires, transmits, organizes or analyzes “actionable” vineyard information.

- Information must have an actionable component to have value to growers.

Examples of Vineyard IT

- Sensing devices
- Telemetry systems
- Neural networking software
- Databases

Examples of Non - Vineyard IT

- Improved spray nozzles
- Drip irrigation systems
- Better mechanical harvesters
- Payroll software

IT is advancing...fast!

Today

- High power requirement
- Wired
- Isolated
- Time delay
- Simple sensors
- High labor requirement
- PC Based

Tomorrow

- Low power requirement
- Wireless
- Networked
- Real - Time
- In Situ “Smart” sensors
- Automated
- Web based

What is Valuable IT?

- For IT to be valuable it must do at least one of the following:
 - Make more timely decisions
 - Make more accurate decisions
 - Improve farming and labor efficiency
 - Reduce farming costs
 - Increase grape/wine quality
 - Improve quality of life – less stress
- And it must have a low entry cost!!!

“Beware of the technology treadmill”

What can IT do?

- Specific applications where VIT will help growers:
 - Evaluating soil chemical and physical properties
 - Monitoring vineyard physiology – growth and water status
 - Measuring vine nutritional status
 - Monitoring soil moisture
 - Measuring weather conditions
 - Acquire spatial data and imagery
 - Pest and disease management
 - Measuring grape chemistry
 - Yield estimation
 - Fruit quality assessment
 - Labor efficiency
 - Regulatory compliance

Final thoughts...

- Information Technology will transform the way we grow grapes
- Growers need to critically assess the value of any IT before they purchase it
- The number of IT providers is small today, but it will grow significantly over the next five years
- Powerful database software can be used to organize and analyze complex data
- The two “W’s” will shape future IT
 - Web (based)
 - Wireless



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