

# *Variable Rate Irrigation*

*Matt Poesnecker*

*S & P Irrigation*

*Aurora, NE*

*Rainwater Basin Joint Venture*

*21<sup>st</sup> Annual Information Seminar*

*February 9, 2016*



# ***What is VRI?***

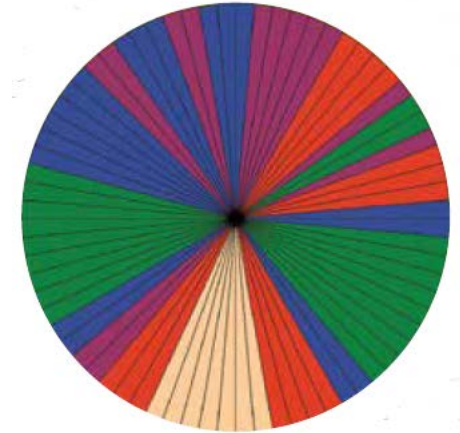
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- Yield data and other imagery show that a field does not always produce a consistent crop performance with the same water depth throughout an entire field
- Variable Rate Irrigation
  - Matching the depth of applied water beneath a center pivot to specific areas within the field
    - Applied depths based on soil map, yield map, topography map

# Types of VRI

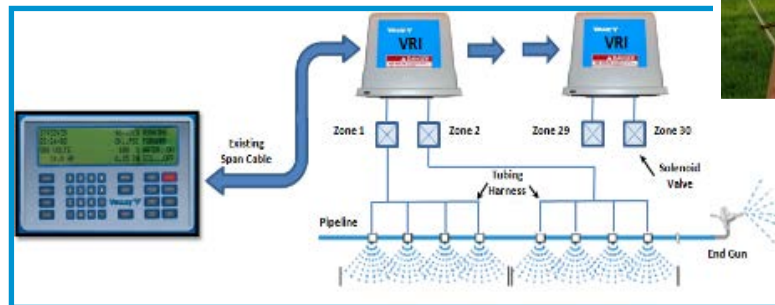
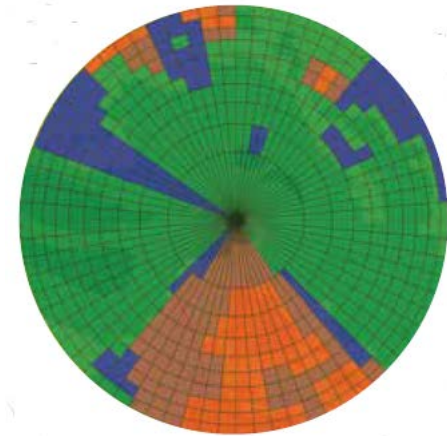
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- Center Pivot Speed VRI
  - Vary the center pivot speed to change the applied water depth in the direction of travel
    - Least cost
    - Limited benefits



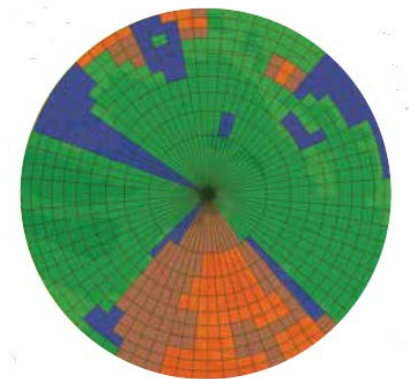
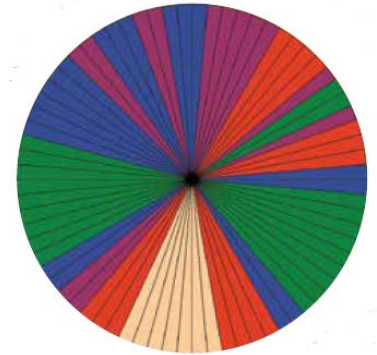
# Types of VRI

- Center Pivot Zone VRI
  - Pulse sprinklers off and on to change the applied water depth along the length of the machine and in the direction of travel
  - Recommend using a VFD to minimize pressure spikes



# Center Pivot VRI

- Valley prescription software
  - Divides field into sectors
    - Each sector is assigned a water application rate percentage
    - A prescription file is saved for loading into a Valley digital control panel
      - Wireless upload available
  - Basic software, easy to use
- Writing prescriptions
  - Grower
  - Agronomist
  - 3<sup>rd</sup> Party



# ***VRI Benefits***

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- Yield increase
  - Reductions in yield variation
- Crop quality improvement
- Water savings
- Fertilizer/chemical savings
- Irrigate fields that could not be in production without VRI
- Energy savings when using a VFD

# ***New VRI Products***

- Linear Zone VRI
  
  
  
  
  
  
  
  
  
  
- Center Pivot VRI iS
  - Variable Rate Irrigation individual Sprinkler



*Available end of 1<sup>st</sup> Quarter 2016*

# Thank You

