



# FOOD SUMMIT 2022

Food for All

Scaling Up Local Food Production on the Palouse

<https://www.pcfoodcoalition.org/>



# Water Conservation Strategies on a Diversified Small Farm

**Robert Heinse**, University of Idaho

<https://www.uidaho.edu/cals/soil-and-water-systems/our-people>



# *Water Conservation Strategies on a Diversified Small Farm*

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Soil and Water Systems

# Small Scale Farming

Automating and Optimizing Water Delivery

## Overall Efficiency

- Optimized watering
- Reduced labor
- Reduced weeds
- Optimized yield

## Informed

- Soil characterization
- Crop type parameters
- Soil moisture informed
- Climate informed

## Simple

- Plug and Play
- Manual, Timed, Autonomous modes

## Available

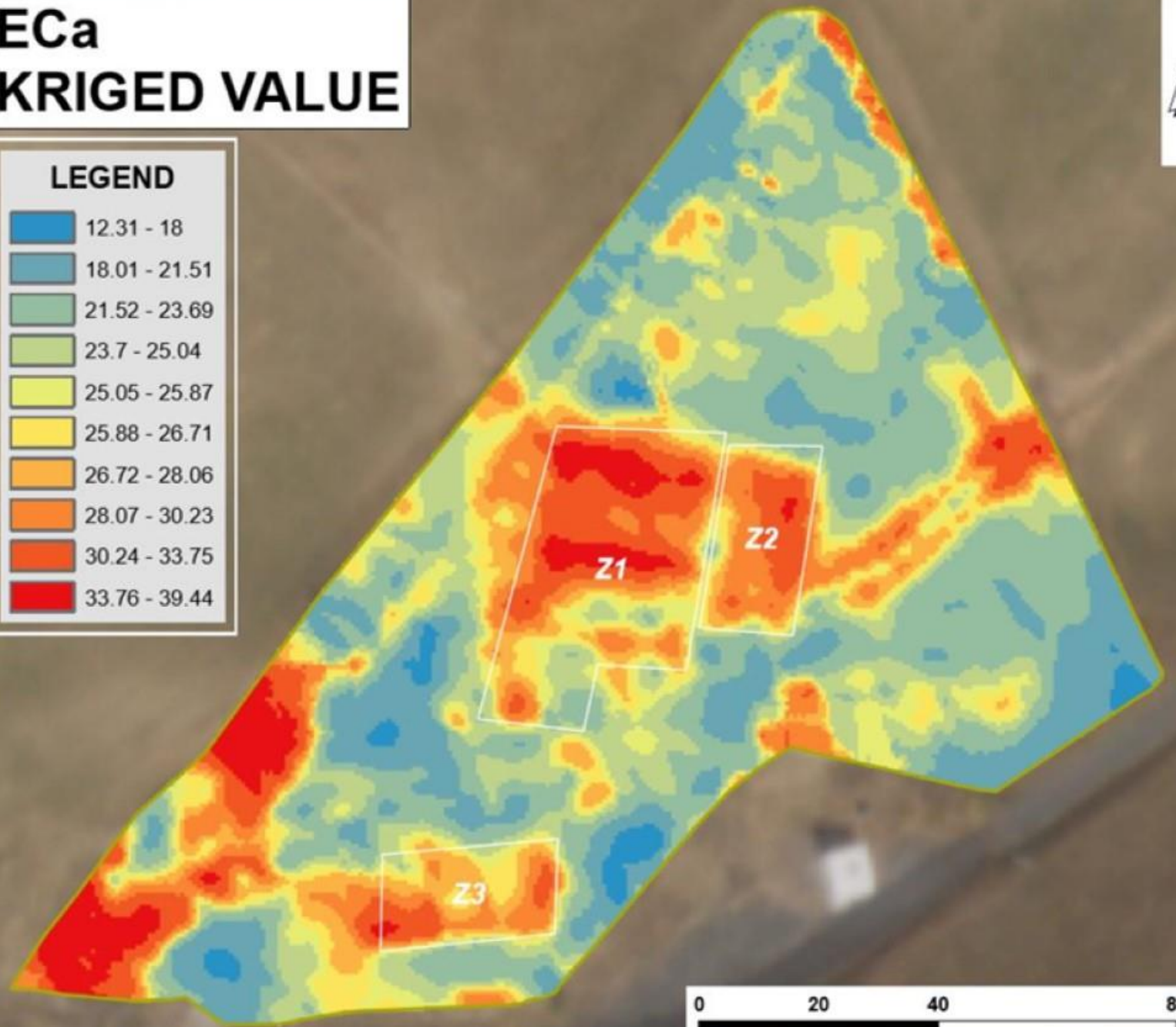
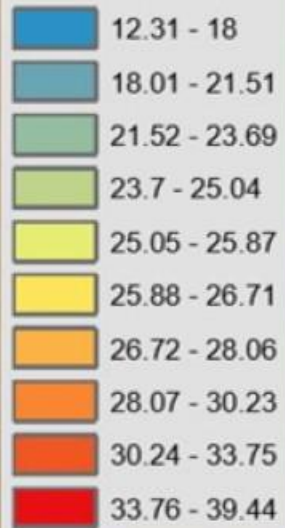
- Consumer available components
- Supported





# ECa KRIGED VALUE

## LEGEND



# Observations in the field

Worm castings, burrows, human  
transported materials, and redox  
features.





# Observations in the field

Water penetration and lateral flow.





## Drip tube



- Tried and true
- Reliable
- Soil stewards has purchased all new for current production areas

## Misters/Micro sprinklers



- Improved germination potential
- Long-term use promotes disease and weeds
- Always plugged due to calcium in water
- Still looking into options for improving late season germination

## Low flow Ag Sprinklers

**RAIN BIRD**

### LFX300 Low Flow Sprinkler

Flow rate: 0.28 to 0.73 gpm (62 to 161 l/h)

The small footprint of the low-volume LFX300 offers unparalleled operational flexibility with both interchangeable brake assemblies and nozzles. The LFX300 is perfect for a wide variety of low-volume irrigation applications in under-tree or overhead configurations, including orchard and field irrigation, environmental control, crop cooling and dust control. Constructed of engineered thermoplastic materials for durability and weather resistance, the sprinkler features a simple, three-part snap in place design for easy field maintenance.

LOW FLOW IRRIGATION FIVE-YEAR WARRANTY

- Looks promising for cover crops
- Components customizable and cleanable
- In the processes of trying to get some to try





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