# Farms and Fish Program Update



Henry's Fork Watershed Council
October, 2019

**BC** Contor

#### Overview

 HFF Program: Improve physical reservoir storage in the fall

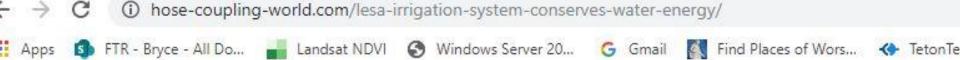
 FTR Program: Improve soil health & reduce sediment delivered to the river

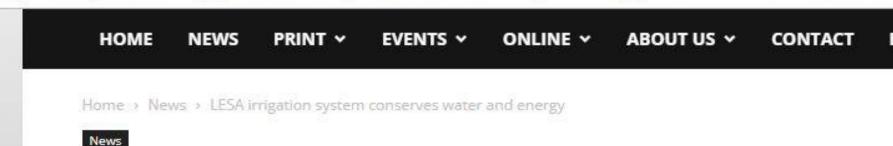
#### 2019 Activities

- HFF Program:
  - Water Use Agreement
  - Winter Wheat
  - LESA
- FTR Program:
  - Cover Crop
  - No Till
  - Perennial Mixed-Species Forage

#### 2019 Activities

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## LESA irrigation system conserves water and energy

By Hose & Coupling World



# Can a *one-time* investment in LESA generate *ongoing* benefits?









#### LESA vs Conventional

- Great intern from Iowa State
- Great technical & hardware assistance from U of Idaho

Slide excerpts: Caryn Dawnson



### Three Questions

- Can it grow a crop in Ashton, Idaho?
- Does it save water in Ashton, Idaho?

What about down-wind effects?

Can it grow a crop in Ashton, Idaho?

The crops looked good on both pivots

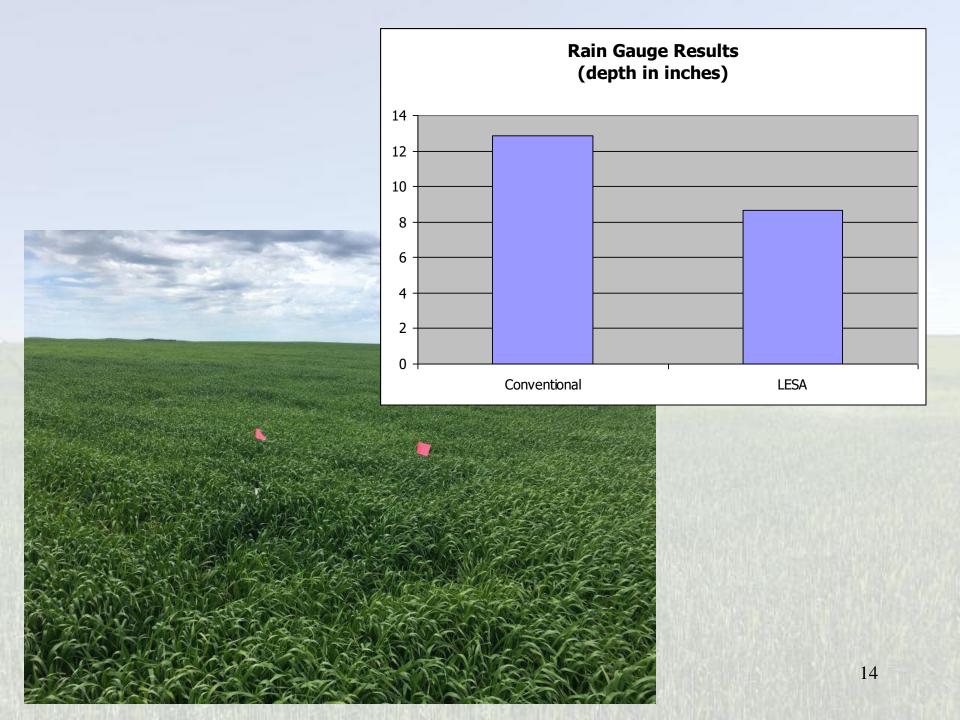
Can it grow a crop in Ashton, Idaho?

- The crops looked good on both pivots
- More barley across the scale from the LESA pivot & better quality

Does it save water in Ashton, Idaho?

"If you have an instrument, you have a measurement.

If you have two instruments, you have an argument."



#### Conventional

- 568 gpm
- 702 hours
- 73 acre feet

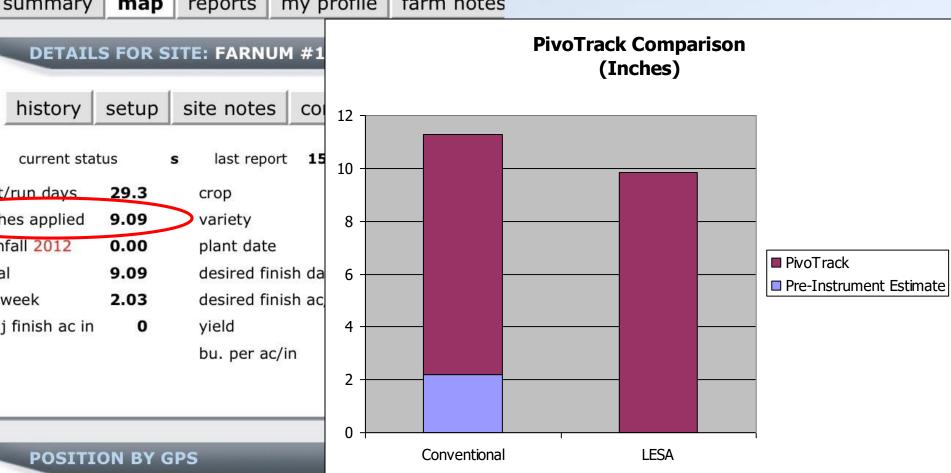
#### • LESA

- 560 gpm
- 791 hours
- -82 acre feet



## (806) 244-2298

my profile farm notes reports summary map





current position: 224.7° speed: stopped

## What about down-wind effects?

Conclusion

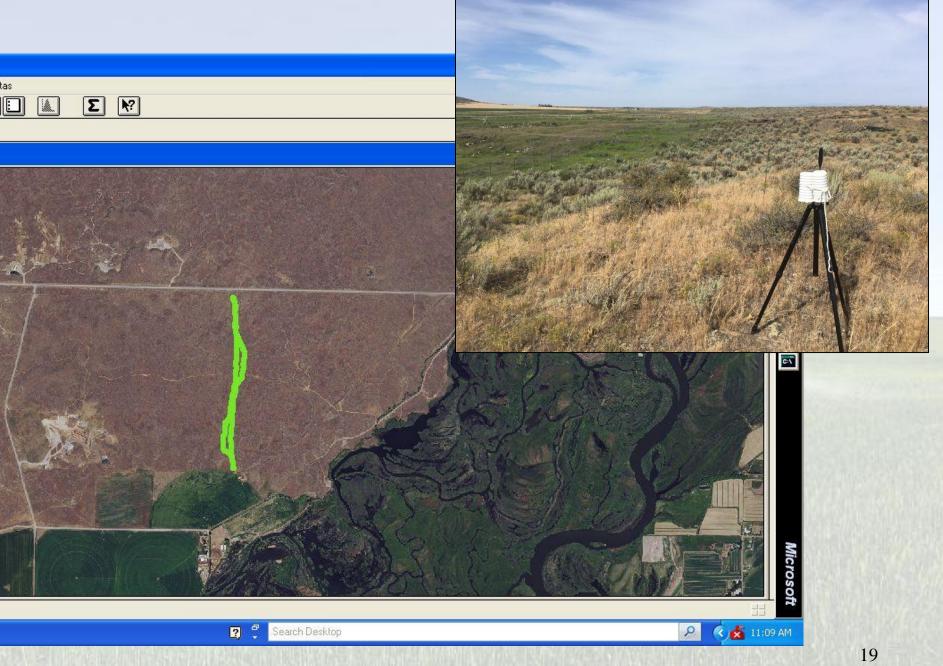
 LESA center pivot exports drier, warmer air, as hypothesized

Slide: Caryn Dawnson

This is statistically Significant -

Is it Practically Significant?

- How much change in ET?
- How far down wind?





There's got to be a pony in here somewhere

In other words, if your boy is a poet, horse manure can only mean flowers to him; which is, of course, what horse manure has always been about. -Ray Bradbury

There's got to be a pony in here somewhere

We remember and honor Granny's

"hypocrites oath"



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**Hippocratic** 

"primum non nocere"



There's got to be a pony in here somewhere

We remember and honor Granny's

"hypocrites oath"

**Hippocratic** 

"primum non nocere" (first do no harm)



