Today's topics

History of the Irrigation Research Foundation

“IRF”

Farming practices and the importance of Organic Matter

Ogallala Aquifer

Irrigation wells

Technology advancements

Data collection- Pros and Cons
Calmer Head
Residual Effects

Harvest
Residue effect
Calmer Head
-Under Construction-  
Seed Reign planter- Luke Cure  
Wray, Colorado
Multi-Hybrid - VR Fertility/seed pop placement 2X2, top of soil 2X2, or In-furrow placement on-the-go
Ogallala Aquifer

By some estimates, 30 percent of the Ogallala's water has already been pumped:

If it were above ground, the Ogallala would be twice as large as all the Great Lakes.

In Colorado, prices for irrigated cropland average $4,450 an acre vs. $1,200 for nonirrigated land, and $760 for grassland.

Acreage fed by the Ogallala produces about 20 percent of U.S. cattle, corn, cotton, and wheat.

DATA: MICHIGAN STATE UNIVERSITY
Fun facts

1 acre foot water = 325,851 gallons

1 acre foot = 66 feet wide X 660 feet Long X 1 foot High or 43,560 cubic feet

350 acre feet well = 750 gpm well = 114 million gallons water

1 acre foot water = Football field filled with water 1 foot deep

27% of Irrigated land in the entire United States lies over the Aquifer

Since 1950 Irrigation has reduced the saturated volume by an estimated 9%

-Yuma County, Irrigated wells- 2,000
25% of farms had adopted yield mapping

19% of farms were using GPS-based soil-mapping tools

29% of corn farmers in the report used auto guidance

Larger farms that utilized GPS yielding maps and auto guidance topped 80% report shows VRT was only used by 40% of those producers

Key components needed for Variable Rate Technology

VRT fertilizer systems - Strip-till, Planter, and Pivot

VRT Water

  Variable Rate motor at the well

  Zone application vs. Sector applications

VRT Injection in water flow

  Agri-Inject - Reflex

Agri-measures - data collection and analysis control center

Past farming history - data maps - *EC maps, Grid soil samples, Yield maps, Aerial NDVI imagery and soil water \water analysis, capacitance probe with salinity
EC map shallow
Contrast of EC map and Soil map
Sector Water Vs. Zone water
Thank you to the following companies for the innovative tools to make this a successful endeavour!!
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