

County-Level View of Irrigation Trends in Utah and the West Quickguide



As water shortages grow in the Western U.S., it's crucial for farmers to use water more efficiently. This study analyzed USDA irrigation surveys (2003–2018) at the county level, revealing detailed trends in how and why farmers. It offers insights into irrigation productivity (crop yield per unit of water), drought response, scheduling habits, and barriers to improvement—data that can help shape smarter water policy and extension efforts in Utah and beyond.

1. How does irrigation productivity vary?

Irrigation productivity varies greatly depending on the crop and location. In 2018, some counties grew over 16,000 pounds of alfalfa per acre-foot of water, while others grew only around 2,000 pounds. Utahn counties were somewhere in the middle.

2. Has irrigation productivity changed over time?

Yes, but not the same everywhere. Some counties, like in New Mexico, doubled their efficiency, while others lost ground. On average, corn and hay yields improved slightly over the 15 years studied.

3. Do farmers change how much they irrigate during droughts?

Not always. In some drought years, farmers used more water, but in others, they used less—not because crops didn't need it, but because water just wasn't available.

4. Where do farmers get their irrigation information?

The primary source was from neighboring farmers. University extension agents were next. Other sources, like

government staff or equipment dealers, varied depending on location.

5. When do farmers decide to water?

Most water based on how the crops look, which can lead to late responses. A slowly rising number use soil sensors or other tools, while some simply irrigate when it's their turn.

6. What stops farmers from improving their irrigation systems?

The two main reasons are high cost or low priority. Uncertain future precipitation rates also play a factor.

7. What helps farmers improve their systems?

In Utah, most counties that made improvements used USDA programs for funding and technical advice. State and private help is also sometimes used.

8. Does receiving help reduce barriers to conservation?

Yes. Farmers who got help were less likely to say water conservation wasn't a priority, but landlord unwillingness to help pay was a concern.

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References

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