

December 16, 2022

SARE Fall Meeting

No/low-till practices as a water conservation tool on small-scale vegetable farms East of the Cascades

Link to original proposal:

https://drive.google.com/file/d/1kiUKS7-MVKsXD2ulKT03Grl2SdIApyR1/view?usp=share_link

Meeting objectives:

- Use farm tour videos to share findings, observations from the trial as well as discuss strategies & tools on no/low-till practices and water conservation
- Present data collected over the season
- Identify next steps for each farm and any further research questions
- Learn more about Small Farms Conference presentation

Agenda:

- Welcome & Intros (5 min)
- For each farm (18-20 mins each):
 - Share video
 - Data presentation
 - Discussion
- Final discussion (10-15 mins)
- Housekeeping (10 min)
 - Payments
 - Small farms conference

Lucas:

Slides show soil series, depth to restrictive feature. Available water holding capacity to 60", irrigation trigger point.

Looked at Sweet Union Farm's data- interested in exploring irrigation trigger point more

Fibonacci: shallowest soil.

Low till did better than no till.

Lost crop to frost.

Broad forked bed was strongest performer for plant health

No till bed was compacted because not broad forked (?)

Discussion about broadforking- how often and soil type, which crops are the priority. Using broadforking to manage bindweed.

Sungrounded: variables affected the test plots.

Very sandy soil but seen some improvement. Lucas wonders if they did go over the irrigation trigger.

Discussion about raised beds.

Sakari: Not a lot of irrigation.

Super helpful to have this data and feel confident about not watering. Excited to use tensiometer.

Tensiometers more helpful on a daily or weekly basis than a full season.

Nella Mae's Farm: Graphs look different because less weeks of monitoring. Lettuce is shallow rooted- lots of flat lines on graph. Lettuce wilts quickly. Tensiometers are less useful for shallow rooted crops. Has plenty of water so an outlier in that regard.

Discussion about different types of tensiometers.

Cheaper ones are less accurate.

Sensitive ones might give better readings.

Looked at weather data. Discussion about usefulness and accuracy of weather stations.