

Irrigation Improvement Continuum Report



Summary

Organization: MCCONNELL FARMS, LLC
Enterprise: MCCONNELL FARMS, LLC
Fundamental 1.0 Intermediate 2.0 Advanced 3.0
No Score = not assessed, 0 = did not meet 1.0 standard

Year	Location	Irrigation System Performance	Applied Water	Orchard Water Requirements	Soil Moisture	Plant Water Status
2023 Crop	FIELD 812	3.0	0	3.0	3.0	1.0
2023 Crop	FIELD 813	3.0	0	3.0	3.0	1.0

Irrigation Continuum Report

Organization: MCCONNELL FARMS, LLC
 Enterprise: MCCONNELL FARMS, LLC
 Orchard: FIELD 812
 Year: 2023 Crop
 Highlighting indicates Proficiency Level
 No Score = not assessed, 0 = did not meet 1.0 standard



Measurement	1.0 Fundamental	2.0 Intermediate	3.0 Advanced	Score
Irrigation System Performance	Evaluate irrigation system for pressure variation and average application rate at least once every 3 years. Correct any diagnosed system performance problems.	Assess distribution uniformity and average application rate by measuring water volume at least every 3 years. Correct any diagnosed system performance problems.	Assess distribution uniformity and average application rate by measuring water volume at least every 2 years. Correct any diagnosed system performance problems.	3.0
Applied Water	Use application rate and duration of irrigation to determine water applied.	Use water meters to determine flow rate and water applied.	Use water meters to determine applied water and compare to crop water use (ETc, evapotranspiration) to determine irrigation efficiency.	0
Orchard Water Requirements	Estimate orchard water requirements using "normal year" regional ETc to estimate irrigation demand on a monthly time step.	Estimate orchard water requirements using "normal year" regional ETc – adjusting for current weather and cover crop use on a bi-weekly time step.	Estimate orchard water requirements using "normal year" regional ETc to plan irrigations then use real time ETc data to correct the schedule on a weekly time step.	3.0
Soil Moisture	Evaluate soil moisture based upon feel and appearance by augering to at least 3-5 feet. Monitor on a monthly time step.	Use manually operated soil moisture sensors to at least 3-5 feet and monitor on a bi-weekly time step. Use information to ensure calculated water is not over/under irrigating trees.	Use automated moisture sensors that store data over time. Review weekly to ensure calculated water is not over/under irrigating trees.	3.0
Plant Water Status	Evaluate orchard water status using visual plant cues just prior to irrigation or on a bi-weekly time step.	Use pressure chamber to measure midday stem water potential just prior to irrigation on a monthly time step. Ensure calculated water applications are not over/under irrigating trees.	Use pressure chamber to measure midday stem water potential prior to irrigation on a weekly time step. Ensure calculated water applications are not over/under irrigating trees. Use it to assess when to start irrigating.	1.0

Irrigation Continuum Report

Organization: MCCONNELL FARMS, LLC
 Enterprise: MCCONNELL FARMS, LLC
 Orchard: FIELD 813
 Year: 2023 Crop
 Highlighting indicates Proficiency Level
 No Score = not assessed, 0 = did not meet 1.0 standard



Measurement	1.0 Fundamental	2.0 Intermediate	3.0 Advanced	Score
Irrigation System Performance	Evaluate irrigation system for pressure variation and average application rate at least once every 3 years. Correct any diagnosed system performance problems.	Assess distribution uniformity and average application rate by measuring water volume at least every 3 years. Correct any diagnosed system performance problems.	Assess distribution uniformity and average application rate by measuring water volume at least every 2 years. Correct any diagnosed system performance problems.	3.0
Applied Water	Use application rate and duration of irrigation to determine water applied.	Use water meters to determine flow rate and water applied.	Use water meters to determine applied water and compare to crop water use (ETc, evapotranspiration) to determine irrigation efficiency.	0
Orchard Water Requirements	Estimate orchard water requirements using "normal year" regional ETc to estimate irrigation demand on a monthly time step.	Estimate orchard water requirements using "normal year" regional ETc – adjusting for current weather and cover crop use on a bi-weekly time step.	Estimate orchard water requirements using "normal year" regional ETc to plan irrigations then use real time ETc data to correct the schedule on a weekly time step.	3.0
Soil Moisture	Evaluate soil moisture based upon feel and appearance by augering to at least 3-5 feet. Monitor on a monthly time step.	Use manually operated soil moisture sensors to at least 3-5 feet and monitor on a bi-weekly time step. Use information to ensure calculated water is not over/under irrigating trees.	Use automated moisture sensors that store data over time. Review weekly to ensure calculated water is not over/under irrigating trees.	3.0
Plant Water Status	Evaluate orchard water status using visual plant cues just prior to irrigation or on a bi-weekly time step.	Use pressure chamber to measure midday stem water potential just prior to irrigation on a monthly time step. Ensure calculated water applications are not over/under irrigating trees.	Use pressure chamber to measure midday stem water potential prior to irrigation on a weekly time step. Ensure calculated water applications are not over/under irrigating trees. Use it to assess when to start irrigating.	1.0