2021 NEW PRODUCT CONTEST Winner
Irrigation Association

JAIN

WATER MANAGEMENT CONSULTING SERVICES

JAIN MONITORING AND CONTROL | A JAIN IRRIGATION COMPANY
2851 East Florence Avenue, Fresno, CA 93721

www.jainsusa.com

MEANINGFULLY **DIFFERENT**

WATER COST AND SCARCITY IS ON THE RISE. JAIN IRRIGATION HAS HELPED SAVE BILLIONS OF GALLONS OF WATER FOR GROWERS AND IS NOW OFFERING WATER MANAGEMENT AS A SERVICE FOR YOU.

JAIN's Water Management Service is the culmination of years of technology research and development, key Ag Tech acquisitions and core staff development. Our machine learning and artificial intelligence work using unprecedented historical field datasets allows Jain to combine these critical elements with our JAIN Logic software, suite of hardware and trained staff to provide growers with precise water management services.

In its simplest form, JAIN's Water Management Service observes plant responses using high-resolution satellite imaging while monitoring soil moisture conditions, weather and field irrigation events. Our expert staff develops intelligent weekly irrigation schedules by analyzing plant water consumption, plant vigor responses, soil moisture content and water infiltration properties. Since no one knows a field or the crop on it better than a grower, all of this is done through an interactive weekly exchange with the grower where the grower has the final decision on their irrigation practices. So, all of this is done in an interactive weekly exchange with the grower where the grower has the final decision on their irrigation practices.

The overriding goal of JAIN's Water Management Services is to teach growers how to leverage the years of technology development without having to take big technology or learning curve risks. This program offers all of the necessary hardware and software, along with professional guidance without having to make a large capital investment. Pricing is on a per acre per season basis with a full money-back guarantee. Once the grower gains enough confidence to use the tools to produce their own irrigation schedules, JAIN will even give a partial credit on the Water Management Service fees paid back to the grower towards the purchase of the equipment. There really is little to no risk in trying this service.

- Target Grower Objectives
- Improved Water Use Efficiency
- Yield Optimization
- Input Optimization
- Field Operations Support
- Improved Regulatory Reporting

COMPOUND **SAVINGS**

What Growers Can Expect From Day One

The first step is to meet with one of JAIN's water account managers to discuss the program and do a preliminary field assessment to determine the scope of the program. Next, the grower signs a simple Water Management Services Agreement. A full field assessment will then be scheduled to determine the exact field equipment needed, along with an evaluation of the irrigation system's distribution uniformity (DU). Irrigation system DU is a critical factor to the program's success. JAIN will make irrigation system mitigation recommendations for DU performance measurements of less than 85%. Participation in the program is contingent on a well performing irrigation system. A poorly performing irrigation system simply defeats the purpose of the water management services and the grower would be better served investing in bringing their DU up to an acceptable level (> 85%).

Once the detailed field assessment is complete, JAIN will schedule the field hardware installation at the mutually agreed upon locations. JAIN will provide and install all necessary hardware to achieve the Program's objectives, the cost of which are included in the annual program service fees.

Fees

Field / Block Size (acres)	**Annual Fees** by Acre
< = 50	$60
51 - 81	$55
81 - 100	$50
> 100	$45

Annual fees are calculated and invoiced for each field/block based on size in acres times the fee rate associated with the field/block size. For example, one field with two independently monitored blocks of 80-acres each would be 80 acres X $55/acre X 2 + $8,800/year. A single independent 90 acre block would be 90 acres X $50/acre + $4,500/year.

JAIN offers a supplemental historical field analysis called HyperAnalyze™ through its partner Agralogics. Utilizing historical satellite data, soil maps and weather data, HyperAnalyze provides tremendous insights into your field's performance and characteristics. The comprehensive report is an add-on option priced separately that provides the following information:

- Geospatial Map of the Field
- Soils
  - pH
  - Sand
  - Silt
  - Clay
  - Bulk Density
  - KSat / Infiltration Rate
  - Cation Exchange Capacity
  - Available Water Capacity
- GroundWater (last 10 years of data for the Bulletin 118 boundary of your parcel)
  - Estimated Groundwater Map and Public Wells
  - Groundwater Depth Trend
- HyperYield Spatial Map (identify high, low and average yield areas)
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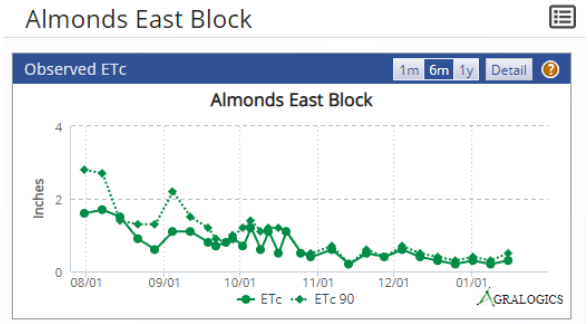
- Performance Histogram For Yield (Bar chart % difference from average)
- Performance Pie Chart (% of average, under and over performing acres)
- 5-Year ETc Trend (important to see a growing or dying orchard)
- 5-Year ETc Uniformity Trend (how consistent is the field performing)
- Monthly Water Consumption Budget (2-yr and 5-yr ETc averages)
- Chill Portions (Accumulation Model)
- Chill Hours (4 different models, each for 5 years)
- Monthly Avg Wind Speed
- Monthly Avg Temperature
- Monthly Avg Precipitation (2-yr and 5-yr averages)

WEEKLY **REPORTS**

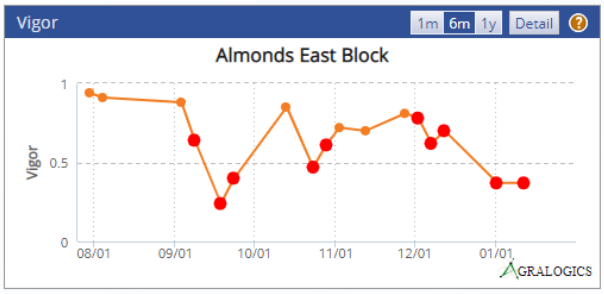
Once the field equipment installation is complete and the system is fully commissioned, the dedicated water account manager will begin the weekly reporting process. Each week the water account manager will provide the following reports and review the salient elements with the grower.

1 Crop Water Consumption (ETc) – ETc is a numerical value of the inches of water consumed in the field(s) as reported by Agralogics satellite and remote sensing models. The value represents an estimation of the water consumed in the field through plant transpiration and field evaporation which is used to determine the amount of applied water needed to replenish what was consumed.

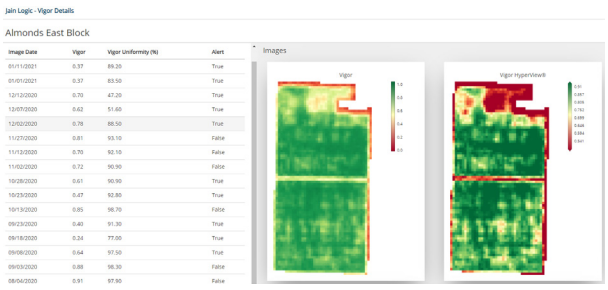


2 ETc Field Uniformity – Two components are reported. An image depicting the ETc uniformity of the field using colorized pixels of 10 meters x 10 meters. The color of each pixel represents the ETc value and the variation of colors across the field indicates the uniformity. The uniformity value is also provided as a percentage between 0 and 100, where 100 is perfect uniformity and a value of 0 indicates no uniformity.

3 Crop Vigor – Vigor reporting uses satellite based NDVI (Normalized Difference Vegetation Index) images and values for the field(s). An image depicting the vigor (NDVI) of the field(s) is provided using colorized pixels of 10 meters x 10 meters. The color of each pixel indicates the vigor value on a scale of 0 to 1.0, where 1.0 is the highest possible vigor and 0 indicates no vigor.

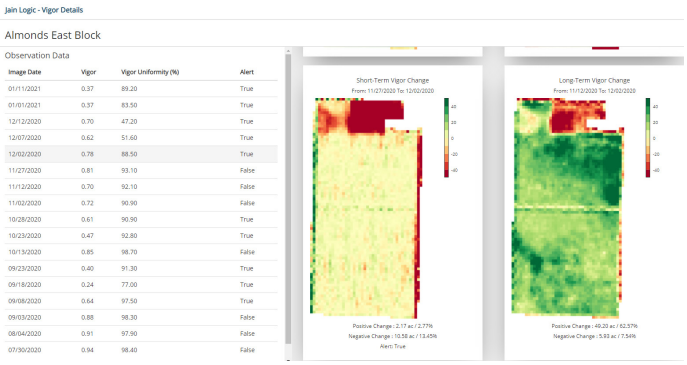


4 HyperView* Crop Vigor Uniformity – Two components are reported. An image depicting the vigor where the scaling is zoomed in and recolorized to show greater details of vigor variation in the field(s). A vigor uniformity value is also provided as a number between 0 and 100, where 100 is perfect uniformity and a value of 0 indicates no uniformity.

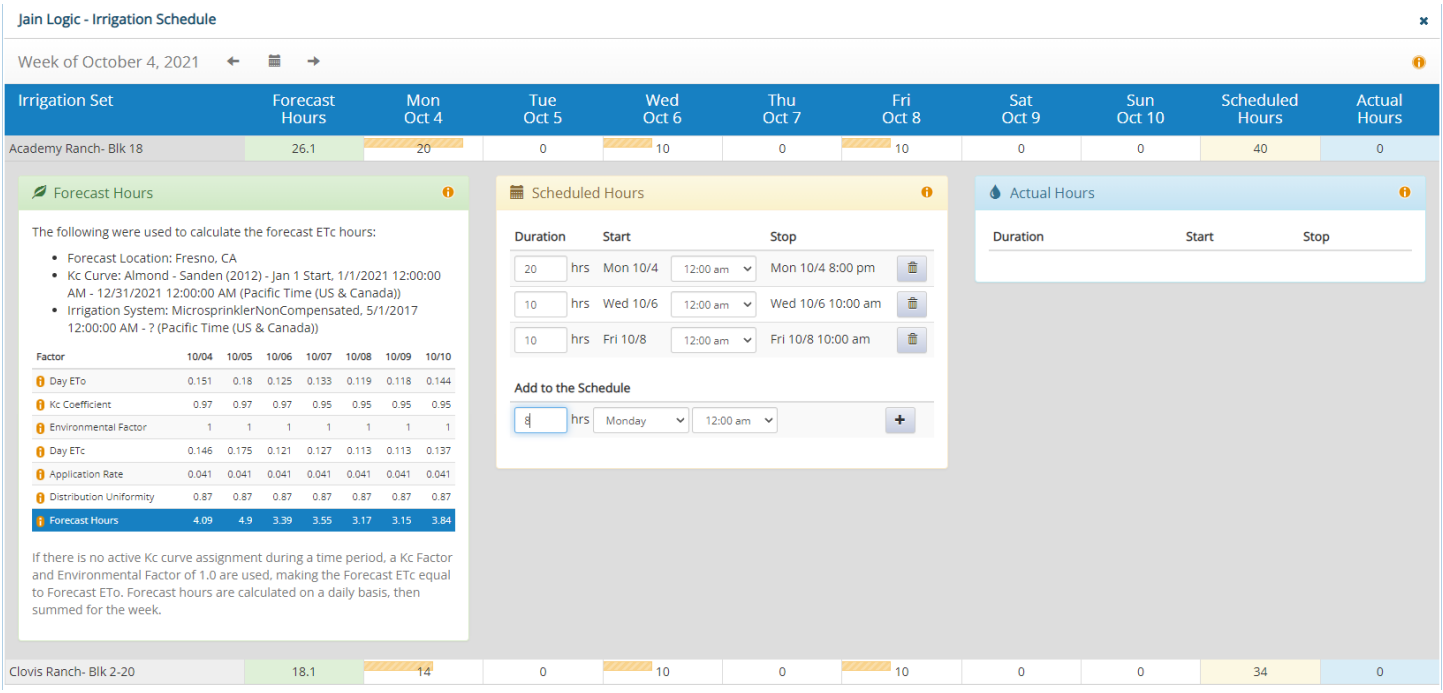


HyperView and HyperGrow are trademarks of Agralogics

5 Vigor Difference Images – Two images are provided with alert conditions. A Short-Term Vigor Change image shows areas within the field(s) where the vigor value has changed positively and negatively by more than 10% since the last week's report. Values are given for the number of acres and percent of acres that have positively and negatively changed since the last week's report. A second image shows the Long Term Vigor Change in the same manner and with the same values reported as the Short-Term Vigor Change report except it is comparing the current week to the values from four weeks prior.



6 Weekly Irrigation Schedule – A recommended daily irrigation schedule for the coming week, including recommended run-times of the irrigation system for the field(s). The recommended schedule is based on numerous parameters including, but not limited to, the prior week's Crop Water Consumption (ETc), soil moisture conditions, projected soil infiltration rates, irrigation system application rates and forecasted weather. It is solely the grower's decision on how much or how often to irrigate the field(s) and the schedule provided by JAIN is meant to be a recommended guideline only.



WEEKLY **REPORTS**

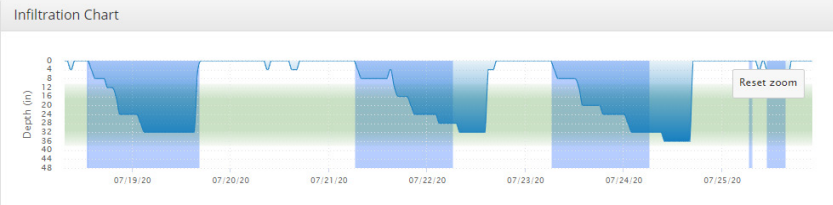
7 Weekly Irrigation Report – A report showing the recommended weekly irrigation schedule versus the actual water applied by the grower.

Jain Logic - Irrigation Schedule

Week of September 14, 2020

Irrigation Set	Forecast Hours	Mon Sep 14	Tue Sep 15	Wed Sep 16	Thu Sep 17	Fri Sep 18	Sat Sep 19	Sun Sep 20	Scheduled Hours	Actual Hours
ALL02 Lower Field	46	0	16.5	3.5	16.5	3.5	6	0	46	56.75
ALL02 Upper Field	47	16.25	3.75	16.5	3.5	10	0	0	50	71.5
ALD7 Field	38	0	0	16.5	3.5	0	16.5	1.5	38	23
ALD10 Field	31	0	0	0	0	14	6	0	20	21.5
ALD17 Field	22	0	12	0	0	10	0	0	22	48.25
ALC20 Field	47	12	0	12	0	12	0	12	48	0

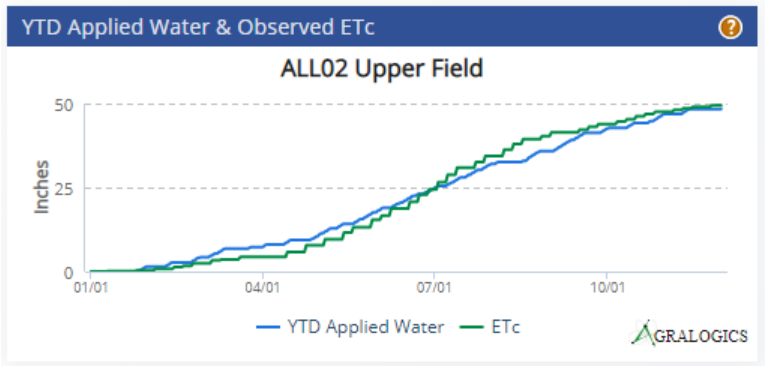
8 Water Infiltration Reporting – A chart is provided depicting the water infiltration depth and rate over time for irrigation and precipitation events. The duration (hours), max depth (inches), time to depth (hours) and rate (inches/hour) are provided for each measured irrigation and precipitation event.



Rain and Irrigation Events

Start	Duration (hr)	Max Depth (in)	Time to Depth (hr)	Rate (in/hr)
07/25/2020 06:40 am	0.5	8	6.3	1.3
07/23/2020 06:30 am	23.8	36	27.5	1.3
07/21/2020 06:25 am	24	32	25.6	1.3
07/18/2020 01:10 pm	27.3	32	13.8	2.3
07/18/2020 01:00 pm	0.1	24	8	3
07/14/2020 06:20 am	23.9	32	18.7	1.7
07/12/2020 06:20 am	23.8	32	22.7	1.4

9 Year-to-Date Performance – A report showing the actual cumulative water applied by the grower versus the cumulative crop water consumption (ETc).



JAIN is a fully integrated global food / plant production company recognized by Harvard Business to be one of five global sustainability champions, the G-20 for lifting people out of poverty, and Fortune magazine for being a "Change the World Company." Our irrigation manufacturing capabilities include everything from the pump discharge to the flush valve at the end of the lateral and everything in between. We lead the industry in manufacturing technology, owning both our extrusion and mold manufacturing equipment providers.

JAIN leads plant science research globally across a variety of food crops and is staffed with some of the world's leading research scientists. With the Gandhi Library, JAIN now houses the leading collection of the world's best plant science knowledge in a single facility. Our agronomic knowledge is integrated from our world class plant tissue culture operations through our food processing businesses. We research, educate, advance, manufacture, finance, propagate plants, and purchase produce for processing all in an effort to fulfill the JAIN mission:

"Leave This World Better Than You Found It"

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