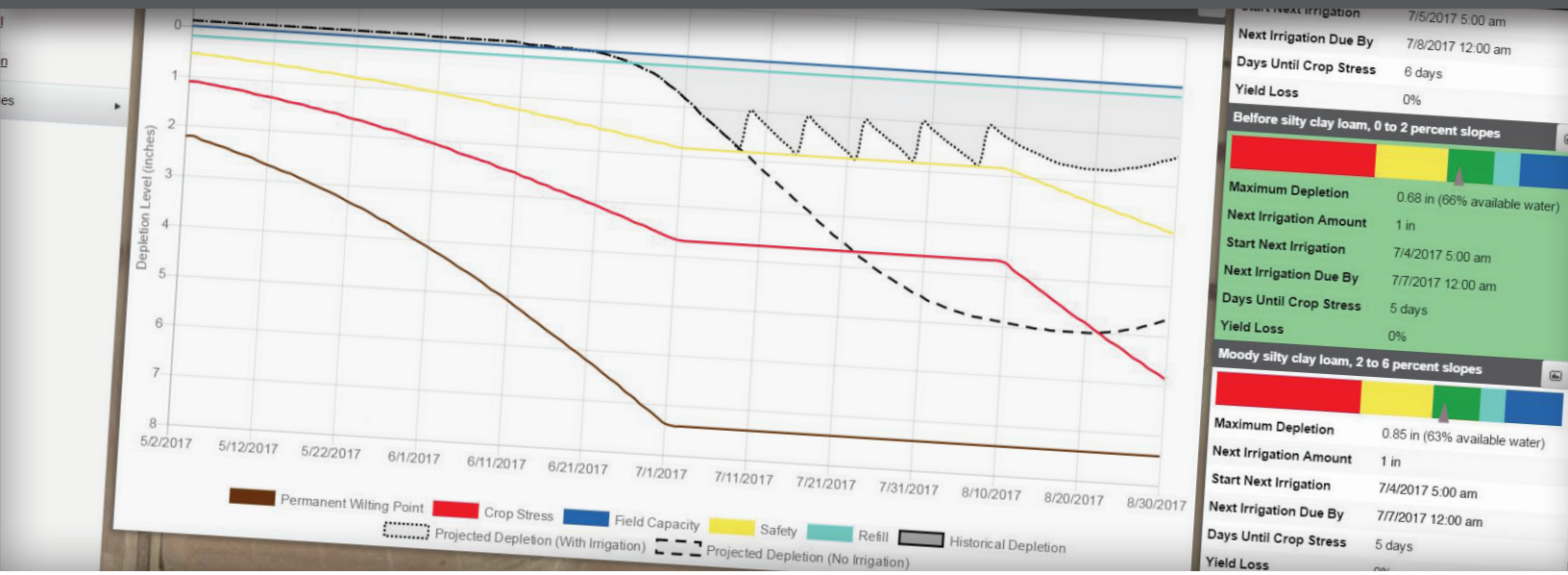
FIELDNET™
BY LINDSAY

FIELDNET ADVISOR™ | SUMMARY OF PRODUCT TRIAL AND TEST RESULTS



Backed by 40 years of research, FieldNET Advisor is a cloud-based irrigation management system that delivers continuously updated, science-based irrigation recommendations that are customized for each field.

FieldNET Advisor reduces the guesswork by advising:

- When to irrigate
- Where to irrigate
- How much to irrigate

PRODUCT OVERVIEW

FieldNET Advisor uses proven soil-water balance irrigation concepts and methods (often referred to as the "checkbook method"), along with proprietary crop growth models, as-applied irrigation data and hyper-local, field-specific weather data to generate the data needed to make more informed irrigation decisions.

After entering the field's crop type, hybrids and planting dates, FieldNET Advisor will:

- Track the available soil water throughout the field by combining a soil map of the field, proprietary dynamic crop canopy and root growth models, hyper-local weather data and the applied irrigation history.
- Forecast the crop's future water needs and predict when and where, without additional irrigation, the yield will begin to decline due to water stress. It also estimates the amount of yield that would be lost to water stress, which varies based on the crop's development stage and the severity of the stress.
- Create a high-resolution map showing the amount of water available to the crop across the entire field.
- Automatically generate variable rate irrigation (VRI) prescriptions, which are continuously updated and optimized to account for actual and forecasted weather, changing crop water requirements and as-applied irrigation.
- Integrate into FieldNET® by Lindsay's remote monitoring and control platform, giving growers the ability to immediately put their irrigation decisions into action and monitor their progress.

PRODUCT TRIAL SUMMARY

The results of real-world field trials conducted over the past several growing seasons showed that FieldNET Advisor:

- Improves yield output and crop performance by helping to prevent crop water stress and nutrient leaching
- Reduces input costs and conserves water by helping to avoid overwatering and the resulting loss of key nutrients
- Saves time and labor by providing quick, simple and intuitive irrigation management recommendations and alerts

FIELD TRIAL DETAILS - EXAMPLE

Located in north central Nebraska, two test fields were planted on the same date using the same corn hybrid. The two fields were in close proximity and had substantially similar soil types.

On the control field, the grower used his traditional methods of determining when and how much to irrigate.

On the test field, Lindsay officials managed irrigation remotely using FieldNET Advisor's recommendations.

One capacitance type and one soil water tension sensing soil moisture probe was placed in each test field. Satellite imagery, including NDVI, EVI and other proprietary imagery enhancement methods, was captured by multiple satellite sources throughout the season.

An agronomist scouted both test fields weekly to ground truth crop development and record any additional factors.

Yield maps were captured and analyzed at the end of the season to assess the results.

Both fields were harvested on the same date using the same combine with a calibrated GPS yield monitor to produce the yield comparison data.

Following is a summary of key test facts and data gathered during the test period – April 26, 2016 through September 18, 2016.

SOIL MAP AND FIELD LOCATIONS

The test fields included in the trial were approximately 1.5-2 miles apart and had the same soil type throughout.

KEY TEST FACTS IN TRIAL FIELDS

	FIELDNET ADVISOR	PARTICIPANT
Field Name	Test Field	Control Field
Pivot Brand	Zimmatic®	Valley®
Connected to FieldNET	Yes, FieldNET Premier RTU	Yes, Pivot Control™
Irrigation Area	132.6 Harvested Acres	135.3 Harvested Acres
Design Flow Rate	800gpm	1,000gpm
System Wet Length	1,395 ft	1,410 ft
Full Circle Time	869mins	600mins
Limiting Soil Type	Jansen Loam, 0-2% slopes	Jansen Loam, 0-2% slopes
Limiting AWHC	132.8mm/M	132.8mm/M
Crop Type	Corn	Corn
Hybrid	Channel® 209-53STXRIB Brand Blend	Channel® 209-53STXRIB Brand Blend
CRM	109	109
GDUs to Maturity	2,730	2,730
Plant Date	04/26/2016	04/26/2016
Maturity Date	09/18/2016	09/18/2016

SUMMARY OF RESULTS

FieldNET Advisor performed as expected during the growing season–delivering critical, science-based information to help determine when to run the irrigation system and how much water to apply.

When compared to the control field, FieldNET Advisor provided a 3% yield increase while using 17% less water, resulting in almost $35/acre in increased profit.

		FIELDNET ADVISOR	PARTICIPANT
Yield Benefit	Irrigated Acres	132.6 acres	135.3 acres
	Average Irrigated Yield	246.3 bu/acre	239.3 bu/acre
	Total Yield (assumes 132.6 acres each)	32,660 bushels	31,730 bushels
	Assumed Crop Value	$3.50/bushel	$3.50/bushel
	Total Revenue	$114,310	$111,060
	Increase in Revenue	$3,250	← 3% INCREASE
Water and Cost Savings	Irrigation Applied	11.9 inches	14.4 inches
	Water Used (assumes 132.6 acres each)	45,450,000 gal	54,700,000 gal
	Pumping Cost per 1,000 Gallons	$0.15	$0.15
	Total Pumping Cost	$6,820	$8,205
	Reduction in Pumping Cost	$1,385	← 17% SAVINGS
	Reduction in Irrigation Water	9,250,000 gallons	
Total	Net Profit Gained	$4,635	
	Net Profit per Acre	$34.95/acre	

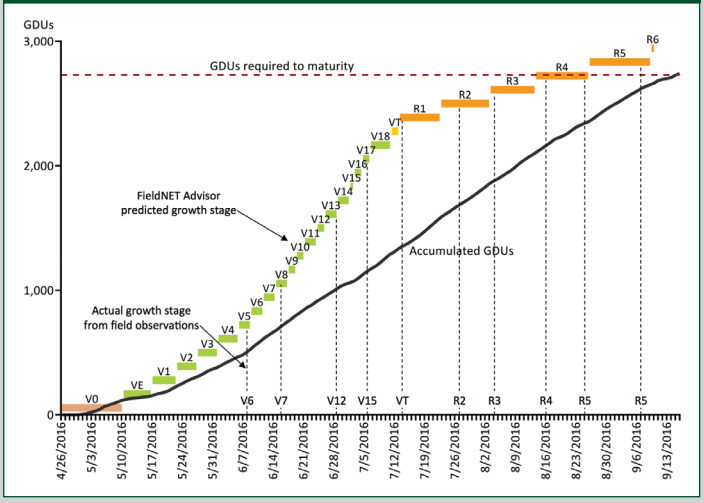
Tom Dorn, Annualized Cost of Owning and Operating an Irrigation System, Center Pivot with Electric Pump Motor, University of Nebraska-Lincoln Institute of Agriculture and Natural Resources, 02/2009.

CONCLUSION

FieldNET Advisor is an innovative solution that effectively combines more than 40 years of crop and irrigation research into FieldNET's proven technology platform, leveraging volumes of big data, cloud computing capabilities and machine learning to deliver growers one easy-to-use tool.

With FieldNET Advisor, growers are able to make faster, better-informed irrigation decisions – helping to maximize yields while reducing overwatering and the related input costs and nutrient losses.

FIELDNET ADVISOR FIELD

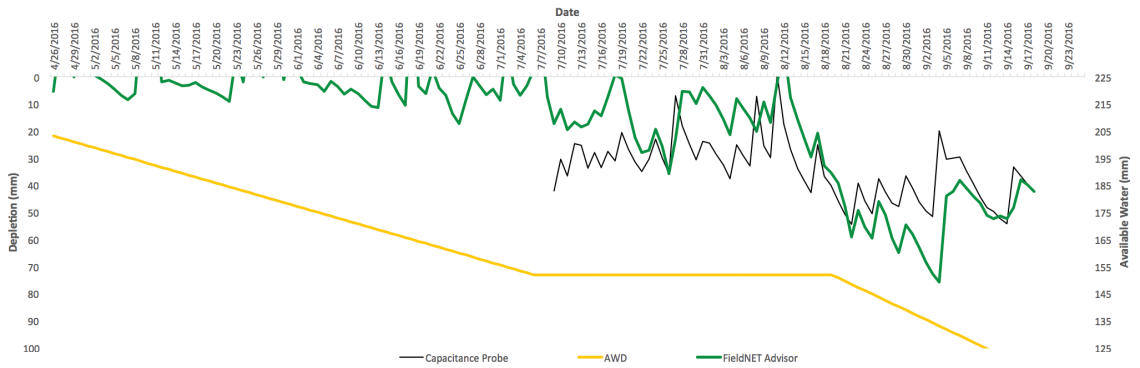


CROP GROWTH

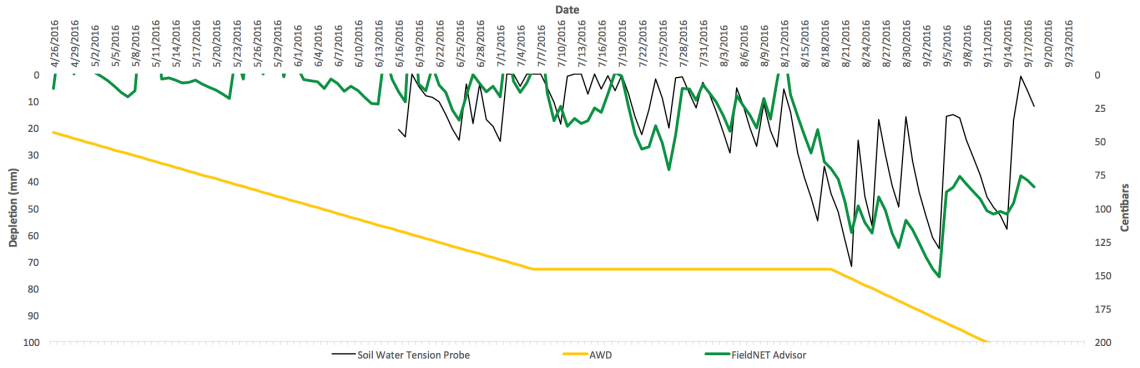
The chart on the left shows the accumulated Growing Degree Units (GDUs) to maturity throughout the growing season, as well as the full-season crop development predicted by FieldNET Advisor. As shown in the data, the growth stages predicted by FieldNET Advisor line up extremely closely with the actual observed stages recorded on the date of the field verifications, supporting the accuracy of the proprietary FieldNET Advisor crop growth models.

FIELDNET ADVISOR FIELD

CAPACITANCE PROBE VS. FIELDNET ADVISOR

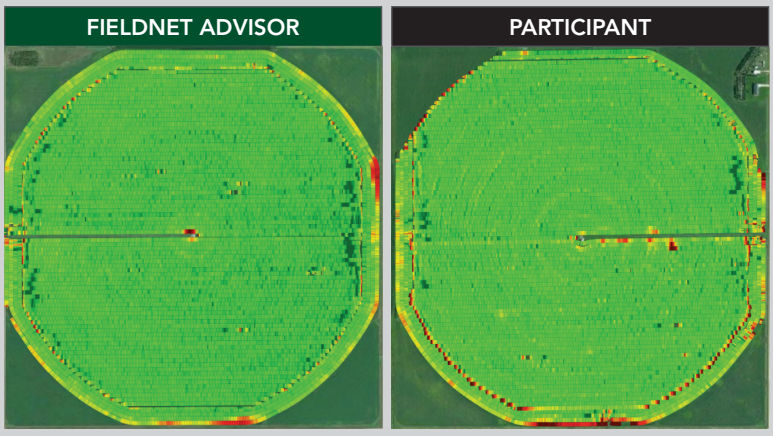


SOIL WATER TENSION PROBE VS. FIELDNET ADVISOR



SENSOR COMPARISON

The two charts above compare the daily soil water depletion data generated by FieldNET Advisor to the soil moisture data coming from two probes installed in the same field. As demonstrated by the data, the soil water depletion data from FieldNET Advisor lines up extremely closely with the data from the probes and was verified by regular field inspections throughout the growing season.



YIELD MAPS

Both fields were harvested on the same date using the same combine with a calibrated GPS yield monitor to produce the yield comparison data.

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For more information, call 1-402-829-6800, toll-free 1-800-829-5300 or visit www.fieldnetadvisor.com