

# CropManage, Web-Based Software for Irrigation and Nitrogen Management in Lettuce



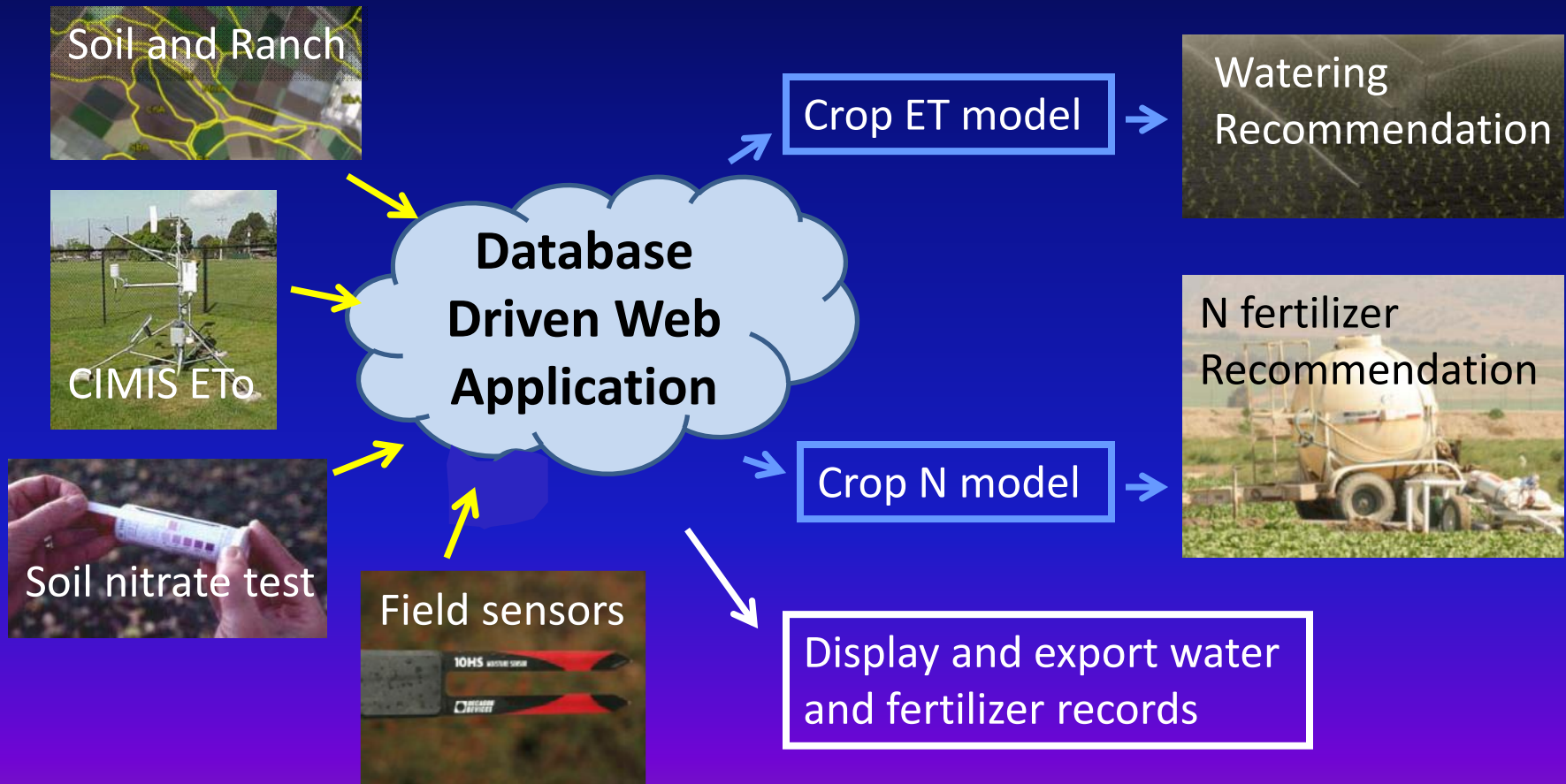
**Mike Cahn, Richard Smith, Tim Hartz, and Bryon Noel**

# CropManage:

Assist growers in making decisions on irrigation and nitrogen fertilizer management

- ✓ Accessible from smart phone, tablet computer, desktop computer
- ✓ Guide irrigation schedules using CIMIS weather data.
- ✓ Guide nitrogen fertilization decisions using field-specific information.
- ✓ Maintain and share irrigation, fertilizer, and soil test records for multiple fields and farms.

## Integrate information from multiple sources



**Decision support using crop models**

<https://ucanr.edu/cropmanage>

# CropManage

About CropManage

## Login

To login enter your e-mail and password below.

E-mail Address

mdcahn@ucdavis.edu



Password

Password

Login

[Forgot Password](#)

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# Ranch Summary

## CropManage

Ranch Home Edit Ranch Ranch List Site Administration Help

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Ranch/Field: USDA-ARS Spence

## Plantings

Showing ALL Plantings

Planting	Wet Date	Harvest Date	Lot	Action
<a href="#">CSUMB broccoli trt1</a>	7/27/2012	10/26/2012	4N	<a href="#">View</a> <a href="#">View Details</a> <a href="#">Edit</a>
<a href="#">CSUMB broccoli trt2</a>	7/27/2012	10/26/2012	4N	<a href="#">View</a> <a href="#">View Details</a> <a href="#">Edit</a>
<a href="#">CSUMB broccoli trt3</a>	7/27/2012	10/26/2012	4N	<a href="#">View</a> <a href="#">View Details</a> <a href="#">Edit</a>
<a href="#">CSUMB trt1</a>	5/4/2012	7/10/2012	4N	<a href="#">View</a> <a href="#">View Details</a> <a href="#">Edit</a>
<a href="#">CSUMB trt2</a>	5/4/2012	7/10/2012	4N	<a href="#">View</a> <a href="#">View Details</a> <a href="#">Edit</a>
<a href="#">CSUMB trt3</a>	5/4/2012	7/10/2012	4N	<a href="#">View</a> <a href="#">View Details</a> <a href="#">Edit</a>
<a href="#">mOasis Head Lettuce</a>	8/3/2012	10/17/2012	4N	<a href="#">View</a> <a href="#">View Details</a> <a href="#">Edit</a>
<a href="#">Michelmore 130%ET High N</a>	6/22/2012	8/25/2012	5N	<a href="#">View</a> <a href="#">View Details</a> <a href="#">Edit</a>
<a href="#">Michelmore 50%ET High N</a>	6/22/2012	8/25/2012	5N	<a href="#">View</a> <a href="#">View Details</a> <a href="#">Edit</a>

# How is a N fertilizer recommendation generated?

Recommended  
fertilizer N =

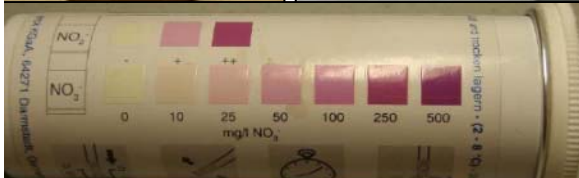
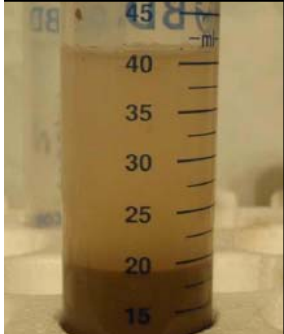
Future Crop N uptake

- (residual  $\text{NO}_3\text{-N}$  - threshold  $\text{NO}_3\text{-N}$ )

- Soil N mineralization potential

- Irrigation water  $\text{NO}_3\text{-N}$

Soil  $\text{NO}_3\text{-N}$  by 'quick test' or lab analysis



# Fertilizer Summary

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Fertilizer Date	Soil NO <sub>3</sub> -N (ppm)	Crop Stage	Fertilizer N Recommended (lb N/acre)	Cumulative N Uptake	Fertilizer	Applied N (lb N/acre)	Applied Fertilizer
<a href="#">7/1/12</a>	12.50	Planting	0.0	0.23	3.5-12-14	15.0	36.9 gal/acre
<a href="#">7/24/12</a>	15.00	1st drip fertigation	31.2	4.32	28-0-0-5	24.8	8.0 gal/acre
<a href="#">8/10/12</a>	15.00	2nd drip fertigation	55.8	31.90	UAN28	56.7	19.0 gal/acre
Totals			86.9			96.5	

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**We have much development work to do ...**

