



# Fresno COG Peer Exchange

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USDA Rural Development  
Fresno, CA  
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# San Joaquin Valley

2011

## Dominates California Ag Production

\$Billion	All Crops
State Total	\$51.5
<b>San Joaquin Valley</b>	<b>\$30.2</b>
<b>Fresno</b>	<b>\$6.9</b>
Tulare	\$5.6
Kern	\$5.4
Merced	\$3.3
Stanislaus	\$3.1
San Joaquin	\$2.25
Kings	\$2.2
Madera	\$1.6

SAN JOAQUIN VALLEY (8)	\$Billion	% of Total SJV Exports
<b>IMPUTED AG EXPORTS</b>		
<b>SJV EXPORTS</b>	<b>\$9.2</b>	
ANIMAL PRODUCTS	\$1.5 Billion	16%
FIELD CROPS	\$438 Million	4.8%
FRUITS	\$1.6 Billion	17%
TREE NUTS	\$3.2 Billion	34%
VEGETABLES	\$391 Million	4.3%
FLOWERS, NURSERY & MISC FOREST PRDTS	\$188 Million	0.002%
Rest of Products	\$2.1 Billion	23%



# Disruptive Event: Drought

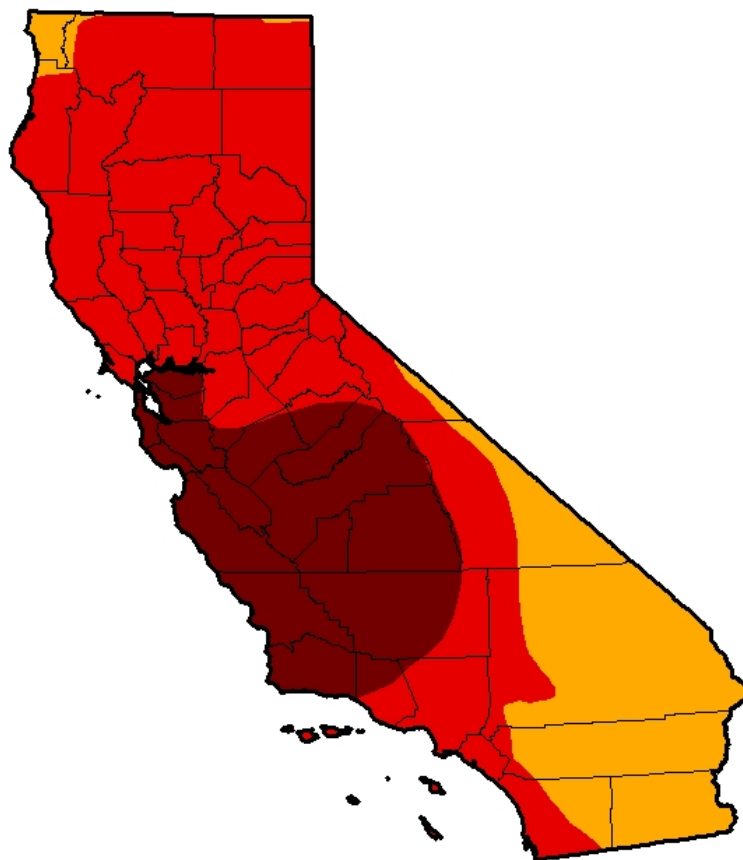


## U.S. Drought Monitor California

May 27, 2014

(Released Thursday, May. 29, 2014)

Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	0.00	100.00	100.00	100.00	76.68	24.77
<b>Last Week</b> 5/20/2014	0.00	100.00	100.00	100.00	76.68	24.77
<b>3 Months Ago</b> 2/25/2014	0.00	100.00	94.56	90.82	73.83	26.21
<b>Start of Calendar Year</b> 12/31/2013	2.61	97.39	94.25	87.53	27.59	0.00
<b>Start of Water Year</b> 10/1/2013	2.63	97.37	95.95	84.12	11.36	0.00
<b>One Year Ago</b> 5/28/2013	0.00	100.00	98.16	46.25	0.00	0.00

### Intensity:

D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought
D2 Severe Drought	

The Drought Monitor focuses on broad-scale conditions.  
Local conditions may vary. See accompanying text summary  
for forecast statements.

### Author:

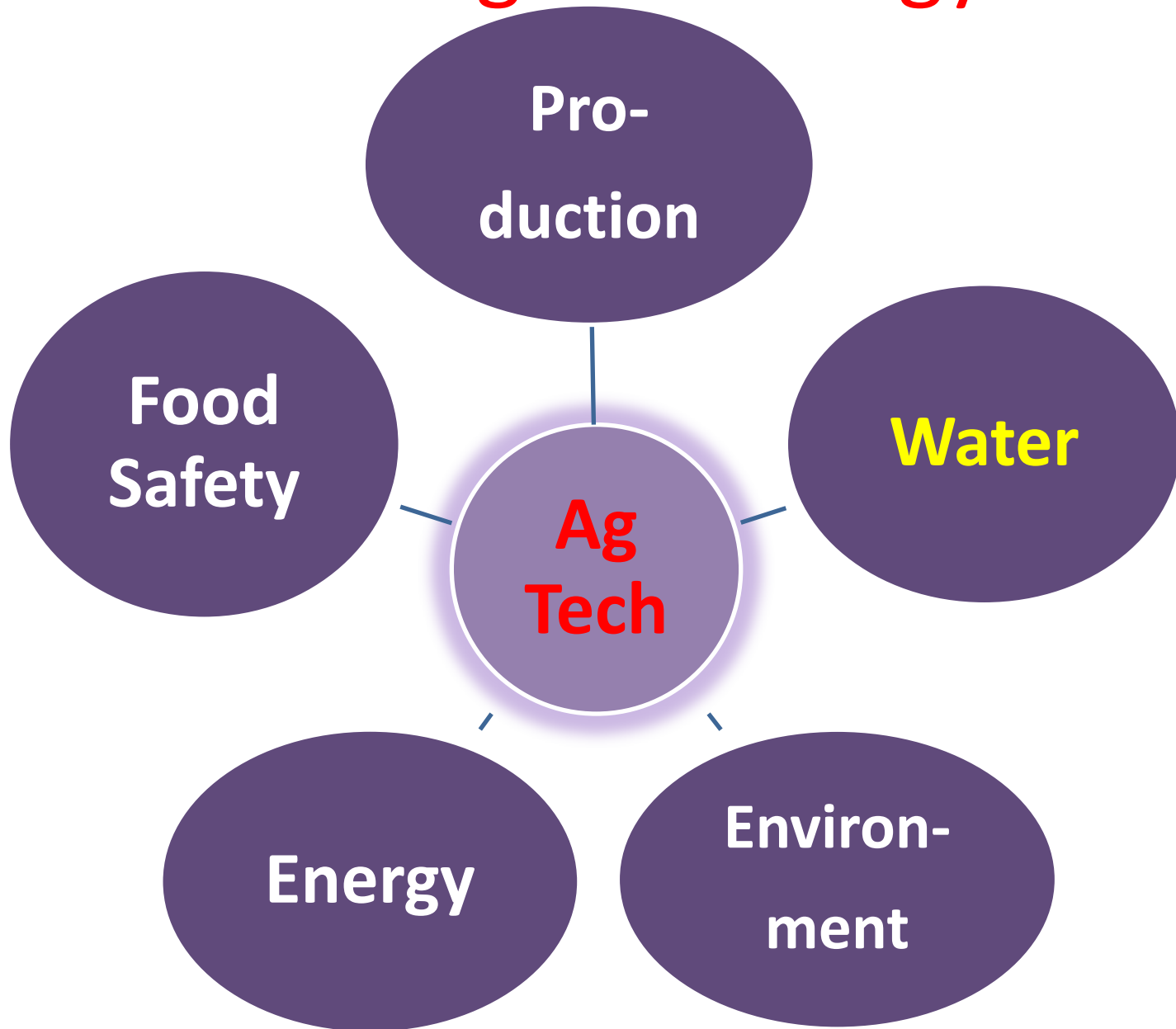
Michael Brewer  
NCDC/NOAA



<http://droughtmonitor.unl.edu/>



# New Ag Technology



# Your Future 21<sup>st</sup> Century Agriculture Technology

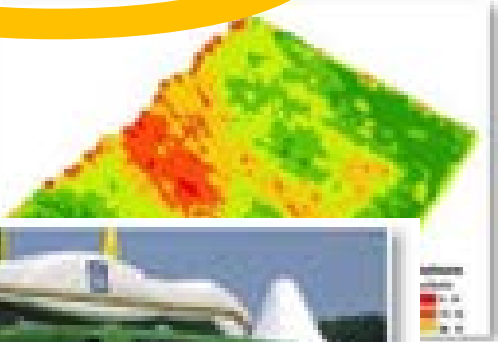
<http://www.youtube.com/watch?v=q8dBOGAfUIk>



Ag Drones



Multispectral Imagery (satellite and aircraft)



Test kit detects foodborne pathogens

By Jenni Spinner , 09-Jul-2013



Food Safety

Variable Rate Irrigation



Wireless Soil Sensors



Drip Irrigation



Precision Input Application





# Rural Wireless Broadband:

## Critical Platform for New Ag Tech

### New Frontier in Ag Tech: Remote Sensing

- High Capacity – Wireless Broadband infrastructure in rural areas including at the farm field level.
- High capacity broadband in width and breadth.
- Critical for Remote Sensing Technology – field to pump
- Broadband driver of technology adoption
- Broadband platform for multiple sectors



# Infrastructure BROADBAND

FOUNDATION FOR ECONOMIC  
GROWTH AND OPPORTUNITY

## RURAL WIRELESS BROADBAND

### NEW AGRICULTURE TECHNOLOGY

PRODUCTION

WATER

ENERGY

ENVIRONMENT

FOOD SAFETY

### RURAL TELE-HEALTH / TELE-MEDICINE

Distance Learning

Public Libraries

### TRANSPORTATION & LOGISTICS

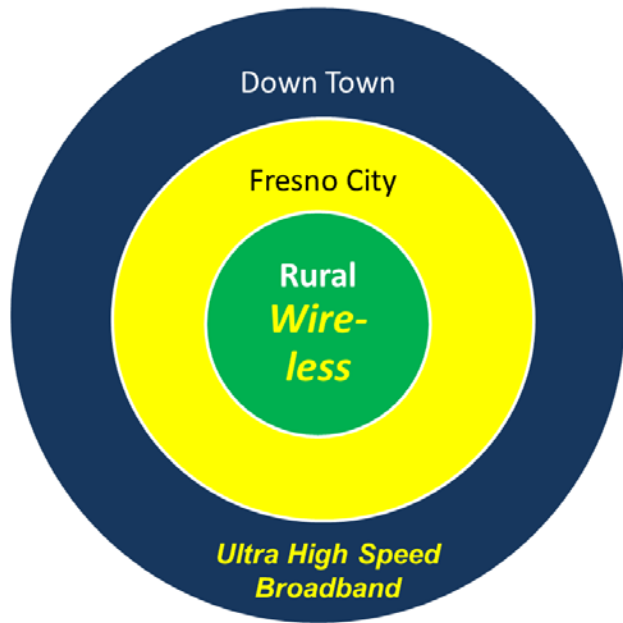
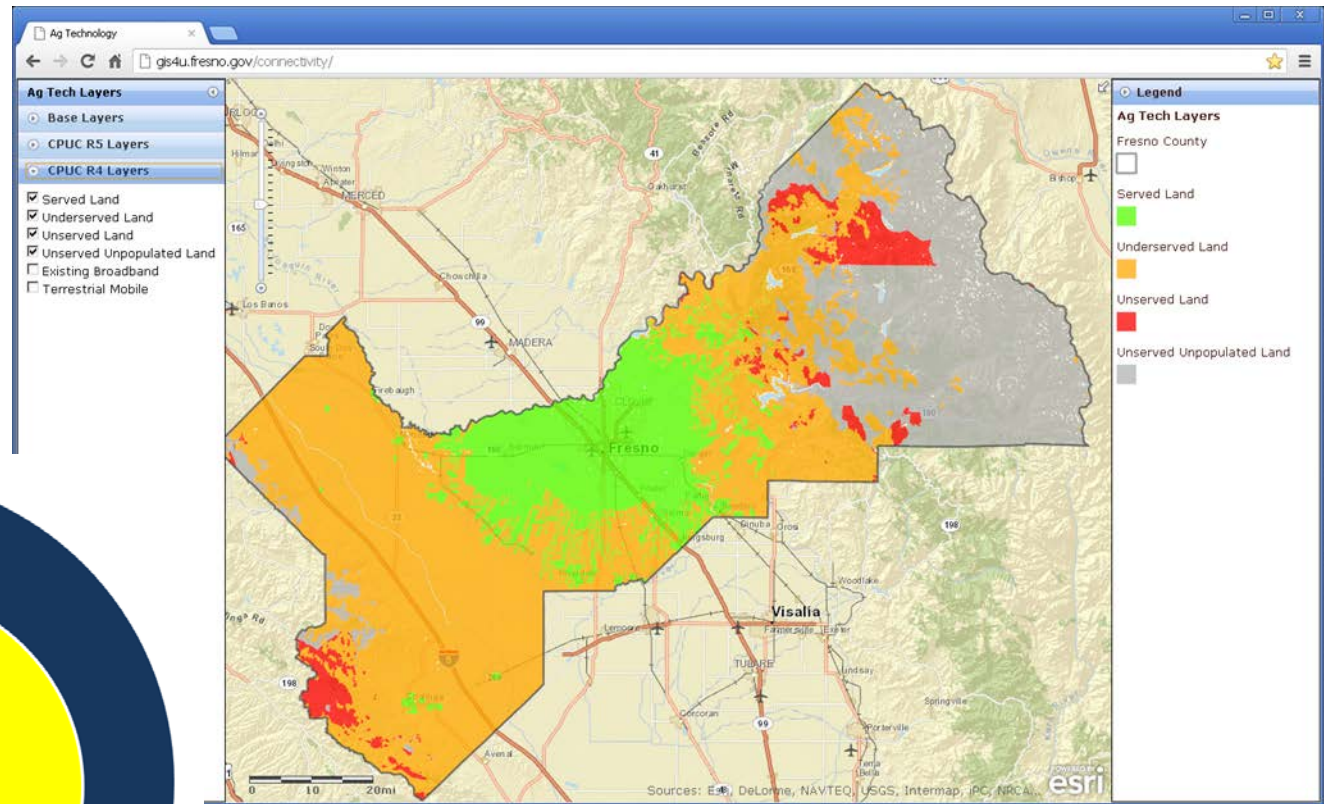
### PUBLIC SAFETY

### DIRECT MARKET ACCESS TO GLOBAL MARKETS

### Rural Agro Tourism & Recreation



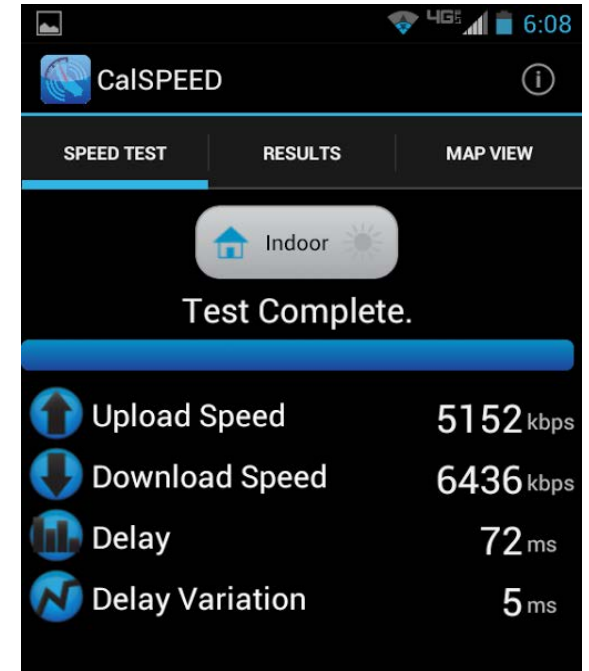
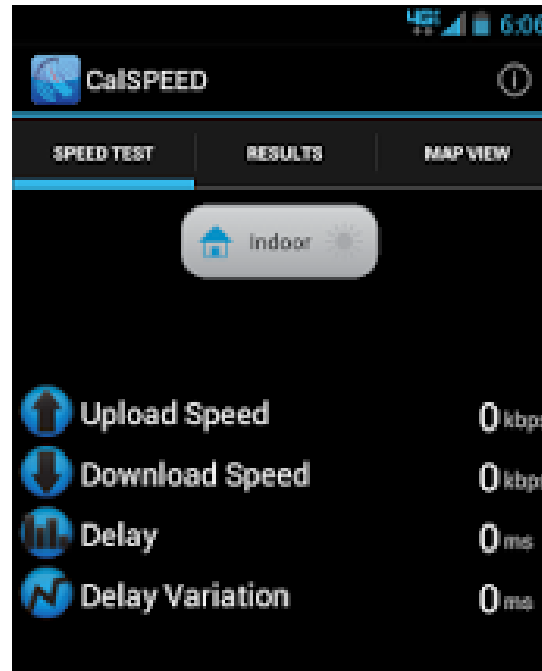
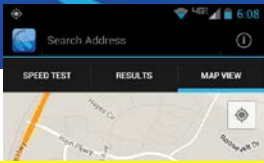
# FRESNO RURAL URBAN BROADBAND STRATEGY





# CalSPEED

## California Public Utilities Commission

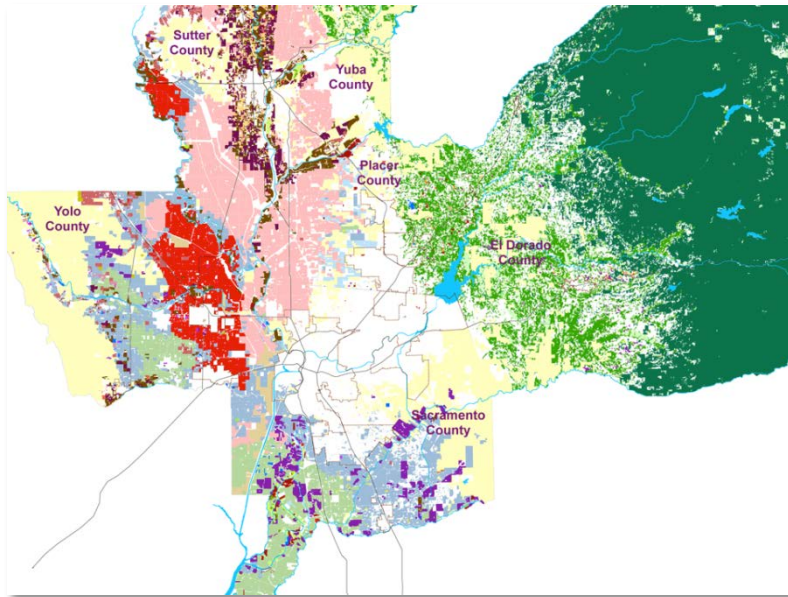


<http://www.broadbandmap.ca.gov>

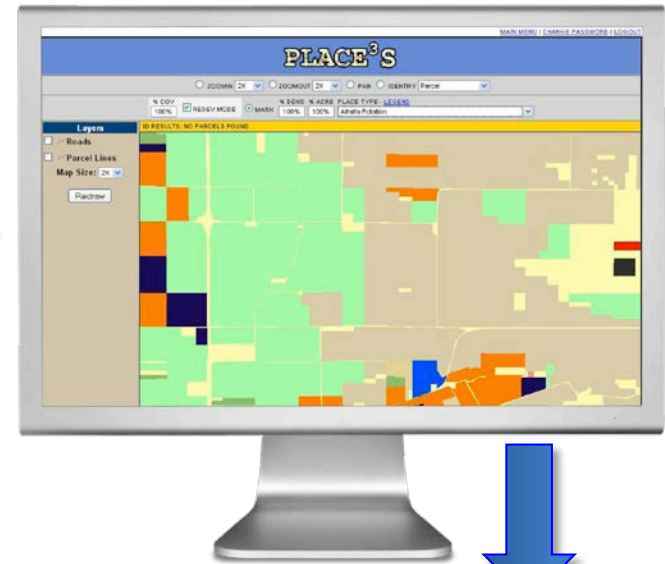


<https://play.google.com/store/apps/details?id=gov.ca.cpuc.calspeed.android>

# RUCS Crop Map



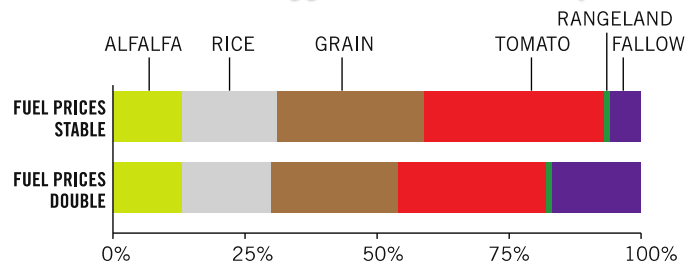
# RUCS Scenario Analysis Tool



## Scenario Results

## Modules Informing Scenarios

### Market Affects on Crops



### Local Market Food Production

