

[www.secowaterwise.org](http://www.secowaterwise.org) Website

***Dedicated to bringing weather  
information and water  
conservation research and  
resources to Southeastern  
Colorado***



[www.secowaterwise.org](http://www.secowaterwise.org)

Link on SECWCD web site

[www.secwcd.org](http://www.secwcd.org)

and

Link on the AVRC web site  
[www.colostate.edu/depts/avrc](http://www.colostate.edu/depts/avrc)





Dedicated to Bringing Weather Information and Water Conservation Research and Resources to Southeastern Colorado

## Welcome To The SECO Water Wise Website

- Home
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- SECWCD Home

Southeastern Colorado Water Conservancy District, Colorado State University Arkansas Valley Research Center with funding from the Bureau of Reclamation have developed this web site to provide information about the value of efficient agricultural water-management practices and technology as well as practical guidance about their implementation. Due to improved irrigation technologies and innovative on-farm water-management practices the potential for agricultural water-use efficiency has increased significantly in recent years. These efficiencies have been developed in response to water shortages, competition for limited supplies, increasing costs, and other factors.

**We need cooperators! Help us conduct a validation and demonstration project in the Arkansas Valley to improve and promote the COAGMET weather data among irrigating farmers in this region. For information, please contact Jean Van Pelt, SECWCD Conservation Outreach Coordinator 719-948-2400, [jean@secwcd.com](mailto:jean@secwcd.com) or Troy Bauder, CSU Extension Water Quality Specialist, 970-491-4923, [troy.bauder@colostate.edu](mailto:troy.bauder@colostate.edu)**

Register for Seco WaterWise eNewsletter

**SIGN UP**

Please click on the name of the weather station you are interested in to gain access to weather information links.

### Weather Stations

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- [Canon City](#)
- [Colorado Springs](#)
- [Fountain](#)
- [Fowler Golf Course](#)
- [Holly](#)
- [NW Holly](#)
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- [Lamar](#)
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**Dedicated to Bringing Weather Information and Water Conservation Research and Resources to Southeastern Colorado**

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**SIGN UP**

## Vineland<

All links open in a new window



[Weather summary: today since midnight](#)

[Hourly weather summary: yesterday](#)

[Daily weather summary: current month-to-date](#)

[Daily weather & ET summary: current calendar year-to-date](#)

[Daily weather summary: 2004](#)

[Daily weather summary: 2003](#)

[Daily weather summary: 2002](#)

[Daily weather summary: 2001](#)

[Daily weather summary: 2000](#)

[7 day weather forecast](#)

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[Snow survey report](#)

[Real-Time Streamflow Report for Arkansas River at Moffat St](#)

[Real-Time Streamflow Report for Arkansas River near Avondale](#)

# CoAgMet Daily Summaries



Select Year

Select Month

Select Day

1996  
 1997  
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January  
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[Snow survey report](#)

[Real-Time Streamflow Report for Arkansas River at Moffat St](#)

# CoAgMet Monthly Summary Results



**Station ID:** VLD01      **Station Name:** Vineland  
**Latitude:** 38.2235      **Longitude:** 104.461  
**Elevation:** 4420 ft      **Location:** 13 mi SE Pueblo

**Owner:** Bert Hartman  
**Sponsors:** CSU Ag Experiment Station - Fort Collins  
 CSU Arkansas Valley Research Center  
 CSU Dept of Bioag Sci & Pest Mgt  
 Colorado Dept of Natural Resources

Date	Max Temp degF	Min Temp degF	Vapor Press Mb	Solar Rad Lgly	Precip in	Wind run mi	Min5cm soil degF	Min RH %	Grow DgDy degF	Ref ET in
1-01-2007	35.4	8.8	2.96	148	0.00	64	31.6	47.3	m	m
1-02-2007	40.5	8.5	2.99	250	0.00	105	30.5	45.3	m	m
1-03-2007	51.9	13.2	4.49	251	0.00	129	29.1	41.1	m	m
1-04-2007	59.9	31.6	5.32	245	0.00	216	32.0	25.7	m	m
1-05-2007	39.0	11.1	4.56	80	0.01	106	32.8	63.3	m	m
1-06-2007	33.8	-5.5	2.20	273	0.00	108	32.7	39.3	m	m
1-07-2007	34.1	6.3	2.06	253	0.06	140	32.7	28.2	m	m
1-08-2007	48.0	12.1	3.95	249	0.00	140	32.6	33.3	m	m
1-09-2007	36.5	13.1	3.39	252	0.00	70	32.2	42.8	m	m
1-10-2007	56.3	16.7	3.99	241	0.00	136	31.1	20.5	m	m
1-11-2007	55.5	22.5	4.55	241	0.00	170	32.0	27.9	m	m
1-12-2007	22.5	4.4	2.18	116	0.00	130	29.6	83.1	m	m
1-13-2007	12.7	3.0	1.63	241	0.01	84	28.7	60.9	m	m
1-14-2007	21.9	-8.4	1.89	133	0.08	58	29.1	67.4	m	m
1-15-2007	28.4	-15.2	1.33	272	0.02	83	28.7	36.8	m	m
1-16-2007	34.4	-5.0	1.78	267	0.00	87	27.8	37.2	m	m
1-17-2007	40.2	-4.3	2.14	275	0.00	261	26.8	28.4	m	m
1-18-2007	28.7	4.9	2.06	220	0.00	131	20.2	40.0	m	m
1-19-2007	40.5	5.1	2.19	239	0.00	98	17.1	30.0	m	m
1-20-2007	27.1	8.8	3.41	154	0.01	74	22.5	70.4	m	m
1-21-2007	30.2	12.2	3.54	136	0.01	146	23.1	66.7	m	m

# CoAgMet ETR Summary Access



These reports contain daily reference 3-day Evapo Transpiration (ET) average Crop-specific Evapotranspiration estimates based on a modified Penman method.

These reports also contain month-to-date precipitation totals and Corn Growing Degree Day totals since March 1st.

A link with more detailed information on the CoAgMet ET calculator will be available shortly. In the meantime, those familiar with the [PHP scripting language](#) may view the code [here](#).

## Choose A Report:

01-28-2008	▲
01-27-2008	☰
01-26-2008	
01-25-2008	
01-24-2008	
01-23-2008	
01-22-2008	
01-21-2008	
01-20-2008	
01-19-2008	
01-18-2008	
01-17-2008	
01-16-2008	
01-15-2008	
01-14-2008	
01-13-2008	
01-12-2008	
01-11-2008	
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winter season and those that remain active will not accurately report snow events.

CoAgMet/NCWCD Meteorological Data for 1/22/2007

	Republican River Basin												
	Akron	Brln N	Brln S	Hearts	Haxtun	Holyok	Idalia	Kirk	Paoli	Stratt	Wray	Strlng	
HiTemp	m	26	27	26	m	23	25	26	20	26	24	16	
LoTemp	m	5	6	3	m	3	5	3	1	4	2	-6	
Precip	m	0.01	0.04	0.14	m	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
P/Month	0.00i	0.09	0.18	0.16	0.00i	0.03	0.02	0.05	0.07	0.01	0.06	0.59	
P/Year	0.00i	0.09	0.18	0.16	0.00i	0.03	0.02	0.05	0.07	0.01	0.06	0.59	
WindGst	m	18	12	15	m	17	15	13	19	17	19	15	
Ref ET	m	0.03	0.03	0.03	m	0.03	0.03	0.03	0.03	0.04	0.03	0.03	
GrowDD	m	m	m	m	m	m	m	m	m	m	m	m	
5cm Soil	m	27	34	30	m	32	32	32	31	31	32	m	

Evapotranspiration data will return next growing season.

Note: Precipitation is measured with a tipping bucket gauge. Many of these gauges are inactive during the winter season and those that remain active will not accurately report snow events.

CoAgMet/NCWCD Meteorological Data for 1/22/2007

	Arkansas River Basin													
	Avndal	Fowler	Holly	Holly2	Hoehne	Lamar	Lamar3	Lamar4	LaJunt	LasAni	RkyFrnd	Stonng	Vinlnd	
HiTemp	38	23	20	19	35	21	17	22	23	26	34	27	37	
LoTemp	4	-8	-3	-5	-7	-8	-1	-5	-6	-3	-8	6	3	
Precip	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.00	0.03	0.01	0.00	0.01	0.00	
P/Month	0.00	0.43	0.40	0.23	0.73	0.28	0.21	0.08	0.33	0.26	0.25	0.30	0.20	
P/Year	0.00	0.43	0.40	0.23	0.73	0.28	0.21	0.08	0.33	0.26	0.25	0.30	0.20	
WindGst	7	6	0	13	12	m	14	13	8	16	6	13	9	
Ref ET	0.03	0.03	0.02	0.03	0.04	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.04	
GrowDD	m	m	m	m	m	m	m	m	m	m	m	m	m	
5cm Soil	28	32	33	31	32	33	34	32	33	40	32	m	26	

Evapotranspiration data will return next growing season.

Note: Precipitation is measured with a tipping bucket gauge. Many of these gauges are inactive during the winter season and those that remain active will not accurately report snow events.

CoAgMet/NCWCD Meteorological Data for 1/22/2007

LoTemp	64	66	66	64	67	65	66	64	m	63	66
Precip	0.07	0.00	0.00	0.04	0.00	0.00	0.01	0.01	m	0.21	0.01
P/Month	1.06	0.81	0.14	1.23	0.17	0.51	1.17	0.45	0.19	1.06	3.68
WindGst	14	15	17	15	17	m	m	m	m	13	m
Ref ET	0.13	0.10	0.18	0.11	0.22	0.16	0.15	0.11	m	0.08	0.17
GrowDD	1561	1594	1514	1533	1572	1584	1566	1623	1553	1493	1595
5cm Soil	m	m	m	m	m	78	72	78	m	m	77
3 - DAY AVERAGE ET											
Alfalfa	0.23	0.19	0.23	0.23	0.28	0.29	0.23	0.23		0.19	0.27
Corn	0.22	0.18	0.22	0.22	0.27	0.28	0.22	0.22		0.17	0.26
Drybeans	0.23	0.18	0.21	0.22	0.28	0.29	0.23	0.23		0.17	0.27
Smallgrn	0.23	0.19	0.23	0.23	0.28	0.27	0.23	0.23		0.07	0.26
Sgrbeets	0.23	0.19	0.23	0.23	0.28	0.29	0.23	0.23		0.17	0.27
Potatoes	0.15	0.12	0.13	0.14	0.18	0.20	0.15	0.15		0.11	0.19
Onion/sd	0.19	0.15	0.18	0.18	0.23	0.23	0.19	0.18		0.15	0.22

COAGMET/NCWCD METEOROLOGICAL DATA FOR 7/8/2006

EAST CENTRAL AREA, SAN LUIS VALLEY, ARKANSAS VALLEY											
	Idalia	Brln N	Brln S	RkyFrnd	Avndal	Vinlnd	Center	Blanca	Hoehne	Holly	Lamar
HiTemp	m	82	80	88	79	78	63	69	79	90	88
LoTemp	m	67	65	64	65	63	54	52	60	65	63
Precip	m	0.00	0.67	0.24	0.01	0.03	0.71	0.49	0.10	0.23	2.61
P/Month	0.39	1.26	1.72	1.24	1.38	2.01	1.18	0.87	2.14	1.72	4.75
WindGst	m	m	m	m	m	m	m	m	m	m	m
Ref ET	m	0.21	0.18	0.25	0.22	0.18	0.08	0.14	0.18	0.32	0.29
GrowDD	1450	1648	1625	1867	1758	1711	1148	1205	1688	1867	1881
5cm Soil	m	74	76	83	82	78	67	68	73	86	77
3 - DAY AVERAGE ET											
Alfalfa		0.28	0.28	0.26	0.25	0.21	0.16	0.19	0.22	0.33	0.31
Corn		0.27	0.27	0.25	0.24	0.20	0.16	0.18	0.21	0.30	0.30
Drybeans		0.28	0.28	0.26	0.25	0.20	0.16	0.19	0.22	0.33	0.31
Smallgrn		0.28	0.22	0.24	0.23	0.21	0.16	0.17	0.19	0.15	0.24
Sgrbeets		0.28	0.28	0.26	0.25	0.21	0.16	0.19	0.22	0.32	0.31
Potatoes		0.19	0.21	0.18	0.17	0.13	0.10	0.12	0.15	0.26	0.24
Onion/sd		0.22	0.23	0.21	0.20	0.17	0.13	0.15	0.17	0.23	0.25

COAGMET/NCWCD METEOROLOGICAL DATA FOR 7/8/2006

WESTERN SLOPE									
	Fruita	GrJunct	Delta	OlatheDoveCrk	YlwJkt	Cortez	Hotchk	Towaoc	
HiTemp	77	m	m	76	73	73	75	79	76
LoTemp	62	m	m	58	56	55	60	57	61
Precip	0.08	m	m	0.04	0.11	0.02	0.03	0.04	0.02
P/Month	0.08	0.00	0.00	0.19	0.38	0.26	0.78	0.44	0.69
WindGst	m	m	m	m	m	m	m	m	m
Ref ET	0.15	m	m	0.14	0.17	0.13	0.15	0.15	0.16
GrowDD	1753	1558	1241	1498	1354	1306	1490	1514	1631
5cm Soil	77	m	m	67	67	68	67	71	71
3 - DAY AVERAGE ET									
Alfalfa	0.22			0.17	0.19	0.18	0.17	0.19	0.21
Corn	0.21			0.17	0.19	0.17	0.16	0.18	0.20
Drybeans	0.22			0.16	0.19	0.18	0.15	0.17	0.21



Your National Weather Service forecast

# Pueblo and Vicinity/Pueblo County Below 6300 Ft, CO



Enter Your "City, ST" or zip code

NWS Pueblo, CO

**Point Forecast:** 7 Miles WSW Pueblo CO  
38.21N -104.73W (Elev. 5097 ft)

**Last Update:** 4:28 am MST Jan 23, 2007

**Forecast Valid:** 12pm MST Jan 23, 2007-6pm MST Jan 29, 2007

## Forecast at a Glance

This Afternoon	Tonight	Wednesday	Wednesday Night	Thursday	Thursday Night	Friday	Friday Night	Saturday
Becoming Sunny Hi 45°F	Clear Lo 19°F	Sunny Hi 44°F	Mostly Clear Lo 15°F	Mostly Sunny Hi 48°F	Mostly Clear Lo 16°F	Mostly Sunny Hi 49°F	Slight Chc Snow Lo 17°F	Slight Chc Snow/Rain Hi 41°F

## Detailed 7-day Forecast

**This Afternoon:** Partly sunny, then gradually becoming sunny, with a high near 45. North wind between 5 and 10 mph.

**Tonight:** Clear, with a low around 19. Northeast wind around 5 mph becoming calm.

**Wednesday:** Sunny, with a high near 44. Calm wind becoming east southeast around 5 mph.

**Wednesday Night:** Mostly clear, with a low around 15. Calm wind becoming west around 5 mph.

**Thursday:** Mostly sunny, with a high near 48. North northwest wind between 5 and 10 mph.

**Thursday Night:** Mostly clear, with a low around 16. North northwest wind around 5 mph.

**Friday:** Mostly sunny, with a high near 49. North northwest wind around 5 mph.

**Friday Night:** A 10 percent chance of snow showers. Partly cloudy, with a low around 17. North northwest wind around 5 mph.

## Current Conditions

[Move Down]

### Pueblo Memorial(aw)

Last Update on Jan 23, 10:53 am MST

Fair

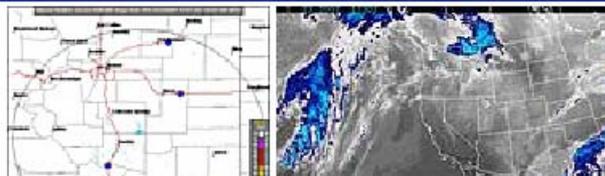
38°F  
(3°C)

Humidity:	48 %
Wind Speed:	S 6 MPH
Barometer:	30.21" (1026.7 mb)
Dewpoint:	20°F (-7°C)
Wind Chill:	34°F (1°C)
Visibility:	10.00 mi.

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Ft. Carson RAWS Observation

## Radar and Satellite Images





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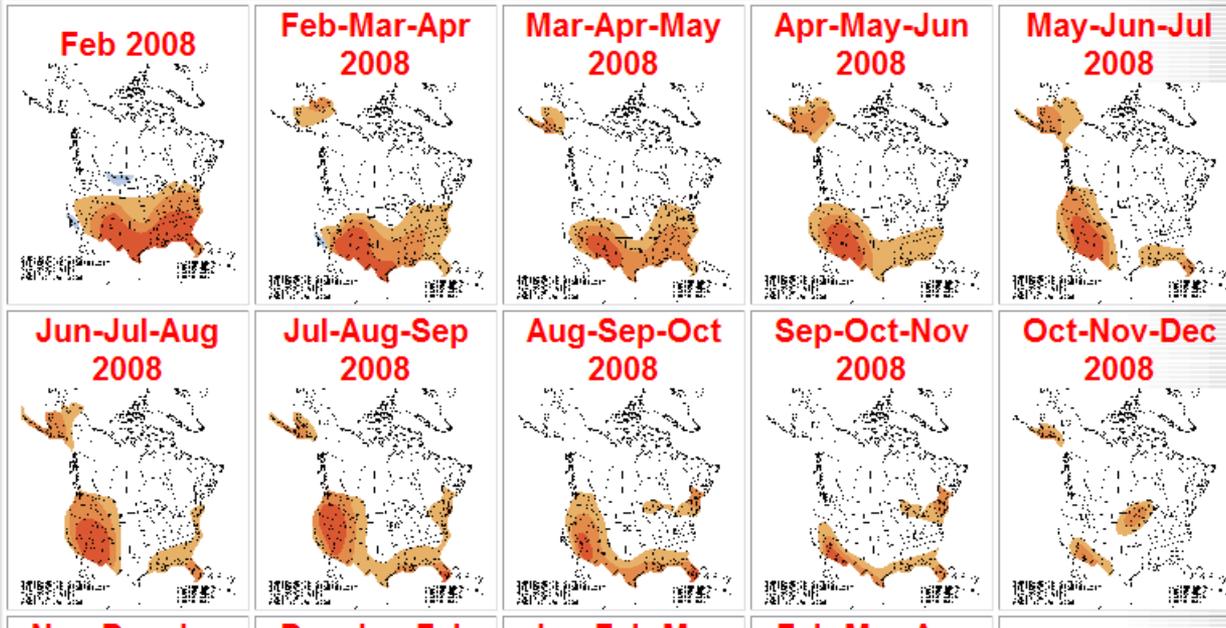
## Monthly & Seasonal Color Outlook Maps

Issued: 2008 Jan 17

**[UPDATED MONTHLY FORECASTS SERVICE CHANGE NOTICE]**

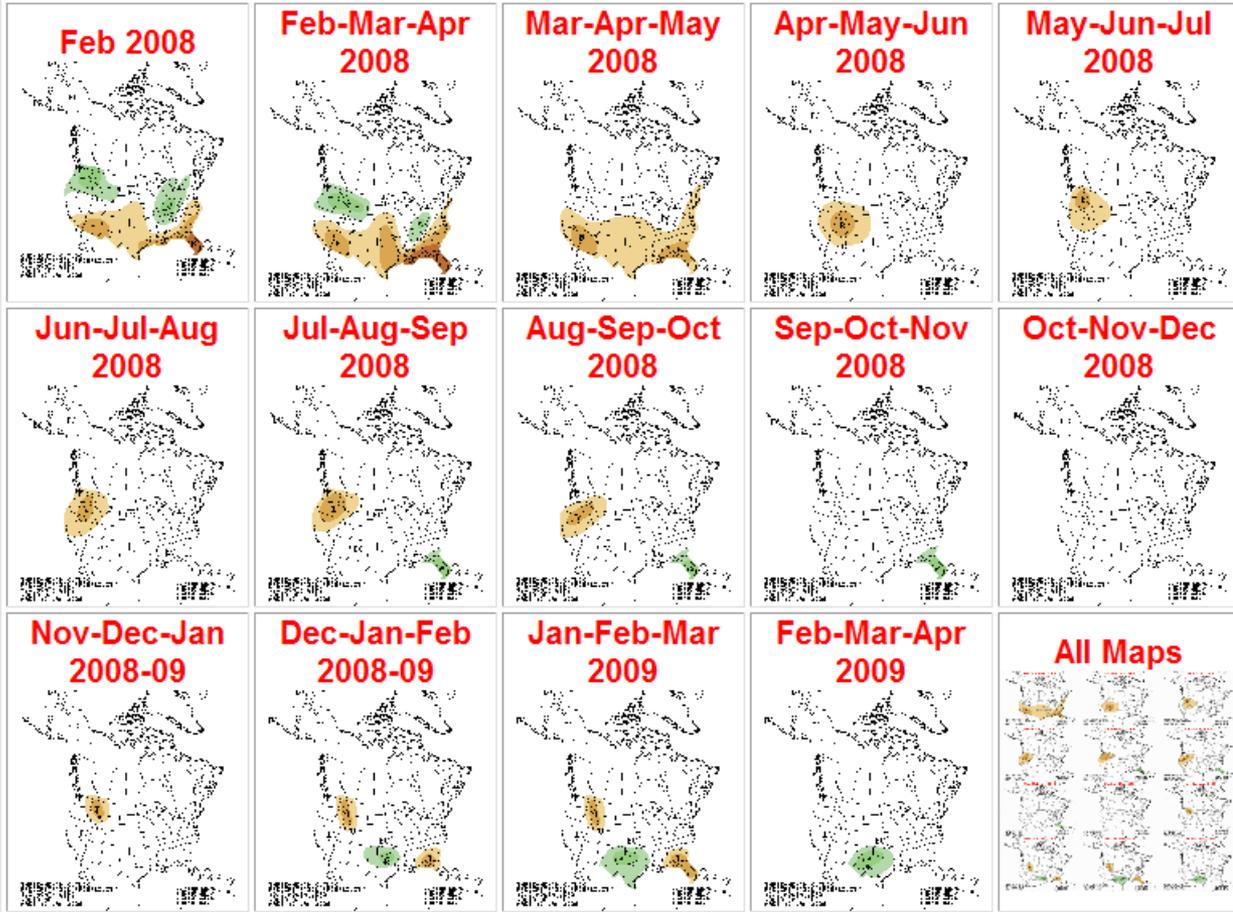
**[EXPERIMENTAL TWO-CLASS SEASONAL FORECASTS]**

### Temperature





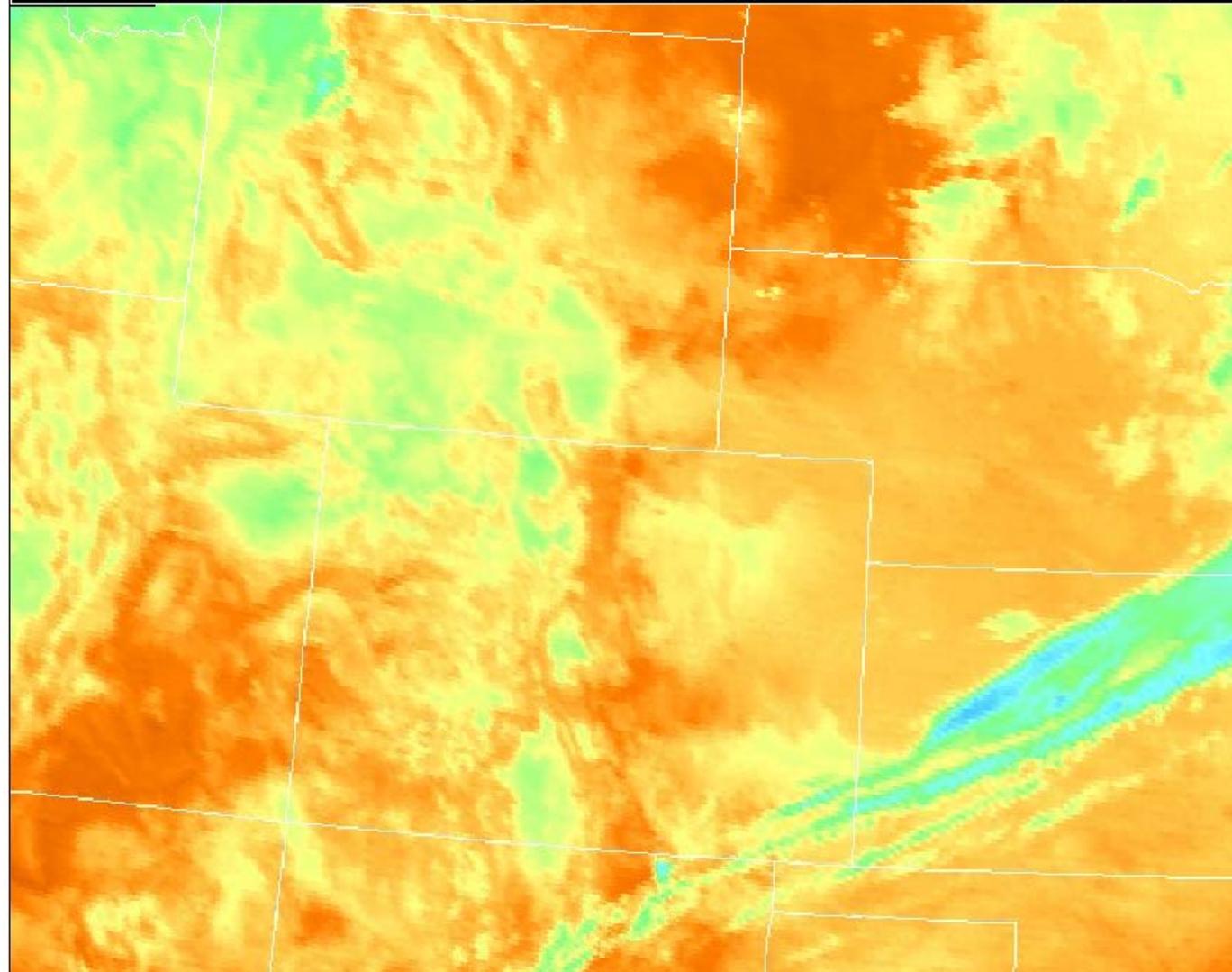
## Precipitation



## Satellite image(s) [DEN, ir]

generated from <http://www.rap.ucar.edu/weather/satellite/> at Tue, 23 Jan 2007 18:11:28 GMT

1732 UTC 23 Jan 2007 Infrared Image (c)2007 UCAR <http://www.rap.ucar.edu/weather/satellite/>



This map shows forecasts normally updated every hour. This is a product of the National Digital Forecast Database, produced by NOAA's National Weather Service. Public comments and suggestions are encouraged.

- Warnings & Forecasts
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### Graphical Forecasts - Pueblo, CO

Public Fire Weather



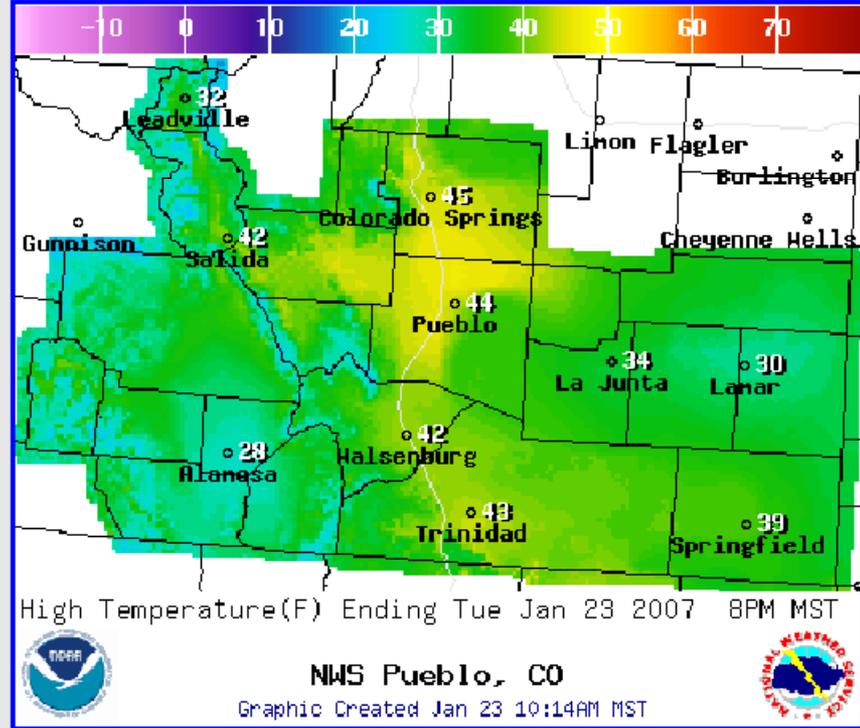
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- Weekly View
- Loops

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Go to Region  View Images  Get Text Forecast

Mouse over the table below to change the forecast image.

▶ Today	< -12Hrs	+12Hrs >
Max/Min Temperature	High	
Probability of Precip.	12 hr. probability	
Weather	8am	11am 2pm 5pm
Temperature	8am	11am 2pm 5pm
Dewpoint	8am	11am 2pm 5pm
Sky Cover	8am	11am 2pm 5pm
Amount of Precip.	QPF	QPF
Snow Amount	Snow Amount	Snow Amount
Wind Chill	8am	11am 2pm 5pm
Relative Humidity	8am	11am 2pm 5pm
Wind Speed & Direction	8am	11am 2pm 5pm
Wind Gust	8am	11am 2pm 5pm





# National Weather Service Advanced Hydrologic Prediction Service

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Weather Forecast Office Pueblo, CO

Arkansas Red-Basin River Forecast Center

Local weather forecast by "City, ST"

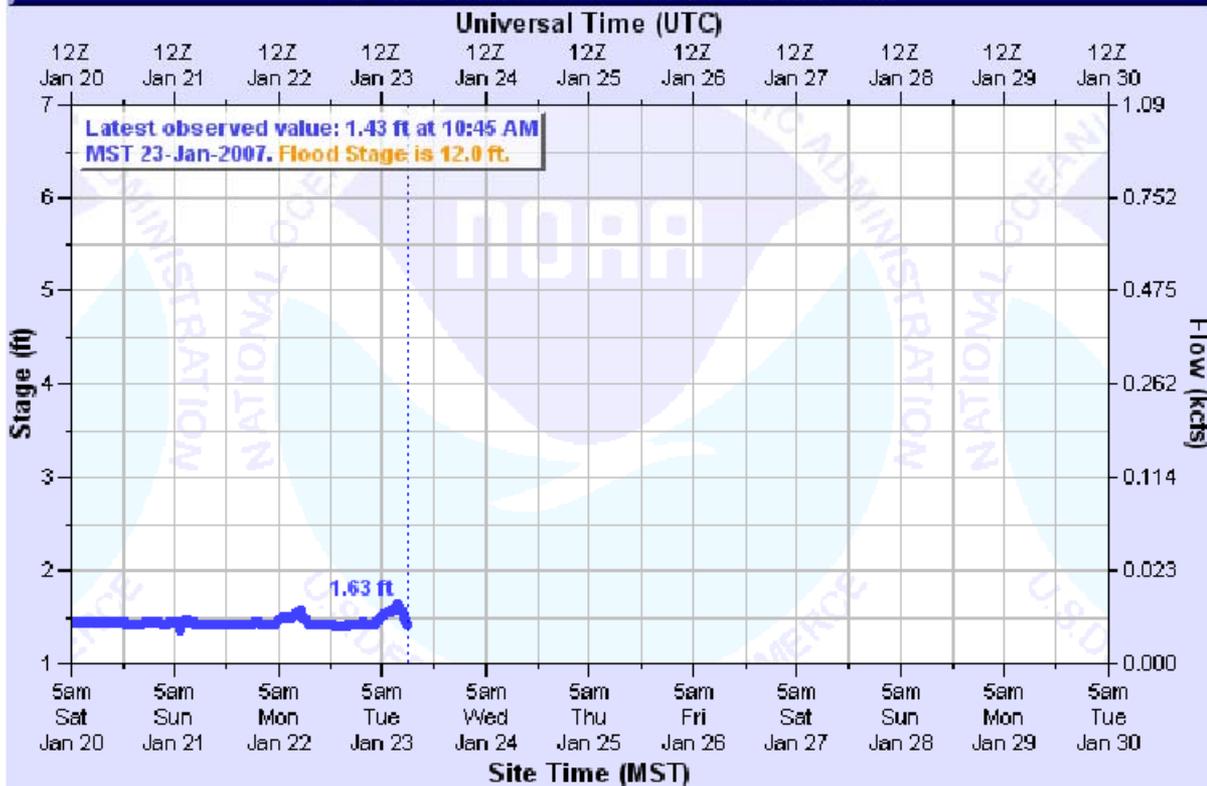
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## ST CHARLES RIVER 2 W VINELAND



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**NOTE:** Forecasts for the St Charles River at Vineland are issued as needed during times of high

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## Colorado Snow Survey Program

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Colorado

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The NRCS Snow Survey Program provides mountain snowpack data and streamflow forecasts for the western United States. Common applications of snow survey products include water supply management, flood control, climate modeling, recreation, and conservation planning.

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### Programs

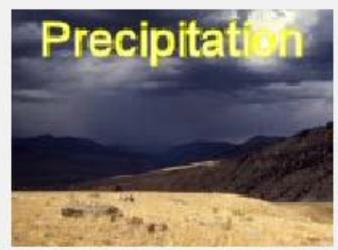
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### Snow Survey Data, Products, and Reports



### Additional Snow Survey Information



**MAINTENANCE:** Tuesday Jan 23, 2007 through Thursday Jan 25, 2007 NWISWeb Refresh of Water Quality data. **Historical Water Quality** data is intermittently available during this period of time and requests to these data could result in an error.

## USGS 07099970 ARKANSAS RIVER AT MOFFAT STREET AT PUEBLO, CO

### PROVISIONAL DATA SUBJECT TO REVISION

Available data for this site

Time-series: Real-time data

GO

Station operated by the U.S. Geological Survey in cooperation with [City of Fountain](#), [Colorado Springs Utilities](#), [City of Aurora](#), [Southeastern Colorado Water Conservancy District](#), [City of Pueblo](#), St Charles Mesa Water District.

Additional [station information](#).

Current shift adjusted stage-discharge [rating table](#). These tab delimited tables are updated daily.

[What is a shift adjusted stage-discharge rating?](#)

Available Parameters	Output format	Days
<input checked="" type="checkbox"/> All 6 Available Parameters for this site	<input checked="" type="radio"/> Graph	7
<input checked="" type="checkbox"/> 00060 Discharge	<input type="radio"/> Graph w/ stats	(1-31)
<input checked="" type="checkbox"/> 70969 DCP battery voltage	<input type="radio"/> Graph w/o stats	
<input checked="" type="checkbox"/> 00065 Gage height	<input type="radio"/> Table	
<input checked="" type="checkbox"/> 00010 Temperature, water	<input type="radio"/> Tab-separated	
<input checked="" type="checkbox"/> 00095 Specific cond at 25C		
<input checked="" type="checkbox"/> 00011 Temperature, water		

GO



*Dedicated to Bringing Weather Information and Water Conservation Research and Resources to Southeastern Colorado*

## Evapotranspiration Information:

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The term Evapotranspiration (ET) combines the concepts of evaporation (E) from soil and plant surfaces with transpiration (T) from plant leaves to describe the total water escaping from a crop to the air. Evapotranspiration increases with: higher air temperature, more solar (light) energy, lower humidity, and faster wind speed. Evapotranspiration is often referred to as "crop water use" because the two processes are so closely entwined and difficult to separate.

[Irrigation Scheduling: The Water Balance Approach, CSU Fact Sheet 4.707](#)

[AGRIMET Irrigation Guide, USBR](#)

[ET Primer, Kansas State University](#)

[Using ET Reports for Center Pivot Irrigation Scheduling, Kansas State University](#)

[Using ET Reports for Furrow Irrigation Scheduling, Kansas State University](#)

[Using Modified Atmometers \(ET gage\) for Irrigation Management, University of Nebraska](#)

[ET Irrigation Scheduling, Oregon State University](#)

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[The Canal Seepage report](#) (2Mb)  
Published in 2000. It introduces the use of PAM to reduce water loss in canals.

[Progress report on drip irrigation as a method of reducing the movement of salts, sediments, nitrates & selenium into the Arkansas River & its groundwater basin I the Patterson Hollow watershed.](#)

[2004 demonstration on transplant onion using Agri-blend, a HYDROGEL/Zeolite blend.](#)

These publications are a compilation of reports dealing with research carried out at the Arkansas Valley Research Center.

[AVRC 2004-2005 Research Report](#) (2.1Mb)

[AVRC 2003 Research Report](#) (1.1Mb)

[AVRC 2002 Research Report](#) (8.3Mb)

[AVRC 2001 Research Report](#) (7.6Mb)

[AVRC 2000 Research Report](#) (2.9Mb)

[AVRC 1999 Research Report](#) (5.4Mb)



*Onions irrigated with drip-line irrigation  
Photo courtesy Dr. Mike Bartolo, PhD*

2. To reduce technical barriers associated with microirrigation system design, performance and maintenance.
3. To reduce existing water and nutrient management barriers associated with microirrigation.

### [Subsurface Drip Irrigation in the Great Plains](#)

In 1989, K-State Research and Extension initiated efforts to develop the techniques for successful application of subsurface drip irrigation (SDI) for crop production in the U. S. Great Plains region. The overall objectives were to conserve water, to protect groundwater quality, and to develop sound methodologies for SDI.

### [Toward Optimal Water Management in the Lower Arkansas River Valley](#)

Colorado State University Technical Report by Timothy Gates, Luis Garcia and John Labadie, documenting flow and water quality conditions in the Lower Arkansas River Valley with the goal of providing data and models that water users and managers can use to enhance both agriculture and the environment.

### [VegNet](#)

Research on integrated pest management (IPM) for various crops, including bean and onion research performed by Dr. Howard Schwartz and Mark McMillan, Colorado State University, Department of Bioagricultural Sciences and Pest Management.

[The Ag Professional + Producer project](#) was designed to help establish management practices for drip irrigation on onions in Baca County, Colorado that would improve germination, emergence and stands with resulting increase in yield, quality and returns. Due to a declining water table with diminishing pumping volumes, agricultural producers are looking for ways to improve irrigation efficiency, lower labor and production costs while maintaining and/or increasing yields and returns.



*Chili peppers irrigated with drip-line irrigation  
Photo courtesy Dr. Mike Bartolo, PhD*



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<http://www.ext.colostate.edu/pubs/water/pubwater.html>

Two to four page articles on water resources related to Crops, Food and Nutrition, and Gardening.

[The Water Center](#) brings together a rich history in water related education and research with diverse talent from 25 different departments at Colorado State University to form a group of educators and researchers interested in water resources.

<http://www.ext.colostate.edu/menudrought.html>

Available resources provided by Cooperative Extension as well as related links to help the Colorado citizen deal with the current drought.

[Colorado State University Cooperative Extension](#)

Provides technical information, publications and training in best management practices, irrigation, salinity, and water quality. State and regional water quality specialists provide unbiased, research-based information to address a variety of water issues in Colorado.

[Sustainable Agriculture in Colorado](#)

Created to find solutions to the growing challenges that face our Colorado farms and ranches. Programs such as water quality, value-added, and niche marketing are helping Colorado improve the local economy, communities, and their livelihoods.

[www.smartditch.com](http://www.smartditch.com)

There are vast potential savings opportunities from water conservation measures

### [Limited Irrigation Management](#)

Full irrigation is the amount needed to achieve maximum yield; however, when irrigation water is insufficient to meet crop demand, limited irrigation management strategies should be considered. These strategies manage the limited water to achieve the highest possible economic return. Restrictions on water supply are the primary reasons for using limited irrigation management. These restrictions may come in the form of mandated water allocations, from both ground water and surface water supplies, low yielding wells, or drought conditions which decrease available surface water supplies.

The key management choices for dealing with insufficient irrigation supplies are to: 1) reduce irrigated acreage; 2) reduce amount of irrigation water applied to all acres; 3) substitute low-water requirement crops for high-water requirement crops; 4) delay irrigation until a critical water stage; and 5) manage soil moisture to capture precipitation.



*Weather Station*

*Photo courtesy Dr. Mike Bartolo, PhD*



*Irrigation Canal*

*Photo courtesy Dr. Mike Bartolo, PhD*

### [Crop Residue and Irrigation Water Management](#)

Crop residue cover and tillage practices play important roles in the way that crops use water, and also affect the ability of irrigation systems to replace that water. The effects of these practices and other influencing factors are discussed in this NebGuide. Tillage practices and crop residue management play an important role in the way that irrigation systems perform and are managed. Tillage practices affect the way that water moves into and off of the soil (infiltration and runoff). Tillage practices also affect the way that water moves from the soil into the atmosphere (evapotranspiration).

### [Selecting and Using Irrigation Propeller Meters](#)

This NebGuide discusses the use of propeller type irrigation meters to monitor irrigation water use. Measuring irrigation water is important in efficient water management. Measuring water can be used for the following purposes: Checking irrigation efficiency, determining pumping plant efficiency, and detecting well and pump problems.

### [Propeller Meters for Irrigation](#)

### [Propeller Meters for Irrigation](#)

- Accurate measurement of water helps producers increase irrigation efficiencies, and reduce both energy and costs.
- Flow measurement facilitates water management. This can be done with the use of a flow measuring device.
- Propeller meters can provide accurate measurement of flow rate and volume if properly selected, installed and maintained.

### [Irrigation Scheduling: The Water Balance Approach](#)

- Irrigation scheduling by the water-balance approach is analogous to running a checkbook balance.
- Advertised evapotranspiration rates can be used to run water balance and schedule irrigation.
- Ready-to-use computer programs facilitate the use of the water-balance approach in irrigation scheduling.
- Soil water-content measurements are needed as a safety check on the predicted water content and irrigation timing.

### [Seasonal Water Needs and Opportunities for Limited Irrigation for Colorado Crops](#)

- Knowing seasonal crop water requirements is crucial for planning your crop mixture.
- Net crop requirements are estimated using models, based on weather variables.
- To water for the greatest return, producers need to understand how crops respond to water, how crop rotation enhances water availability, and how changes in agronomic practices effects water needs.



*Lake Meredith*

### [Colorado High Plains Irrigation Practices Guide](#)

Provides a summary of the documented water savings options for irrigators in Colorado. It provides details regarding what options are available from water conservation, how these options are used to conserve water and expected water savings that can be achieved.

### [Plasticulture – Home Grown and High Tech](#)



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### Four States Irrigation Council 55th Annual Meeting

January 16 – 18, 2008

Hilton, Fort Collins, Colorado

For information contact Brian Werner - 970-622-2229

or

Veronica Gomez - 970-622-2322

or

[vgomez@ncwcd.org](mailto:vgomez@ncwcd.org)

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### January 30, 2008 - Irrigation and Nutrient Management Workshop at the Gobin Building (Old Train Depot) in Rocky Ford

CSU Extension, the Arkansas Valley Research Center, and the Southeastern Colorado Water Conservancy District (SECWCD) are hosting an irrigation management workshop. This workshop will focus on recent field research and field demonstrations focused on Arkansas Valley production issues. [Click here for brochure.](#)

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### SOUTHEASTERN COLORADO Water Conservancy District

*"Your investment in water"*

The Southeastern Colorado Water Conservancy District was created for the purpose of developing and administering the Fryingspan-Arkansas Project. The District extends along the Arkansas River corridor from Buena Vista to Lamar, and along Fountain Creek from Colorado Springs to Pueblo, Colorado. The District consists of parts of nine counties deriving benefits from project water.

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The Colorado State University Arkansas Valley Research Center was established to serve the research needs of the irrigated farming area of southeast Colorado known as the Arkansas Valley, extending from Pueblo County on the west to the Kansas border.



The Bureau of Reclamation created the Water Conservation Field Services Program. The program is designed to encourage water conservation, to assist water agencies with developing and implementing effective water management and conservation plans, to coordinate with state and other local conservation program efforts, and generally to foster improved water management on a regional, statewide and watershed basis.



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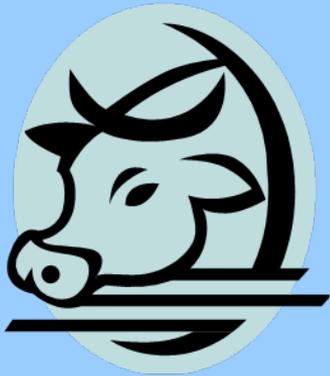
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Question?

