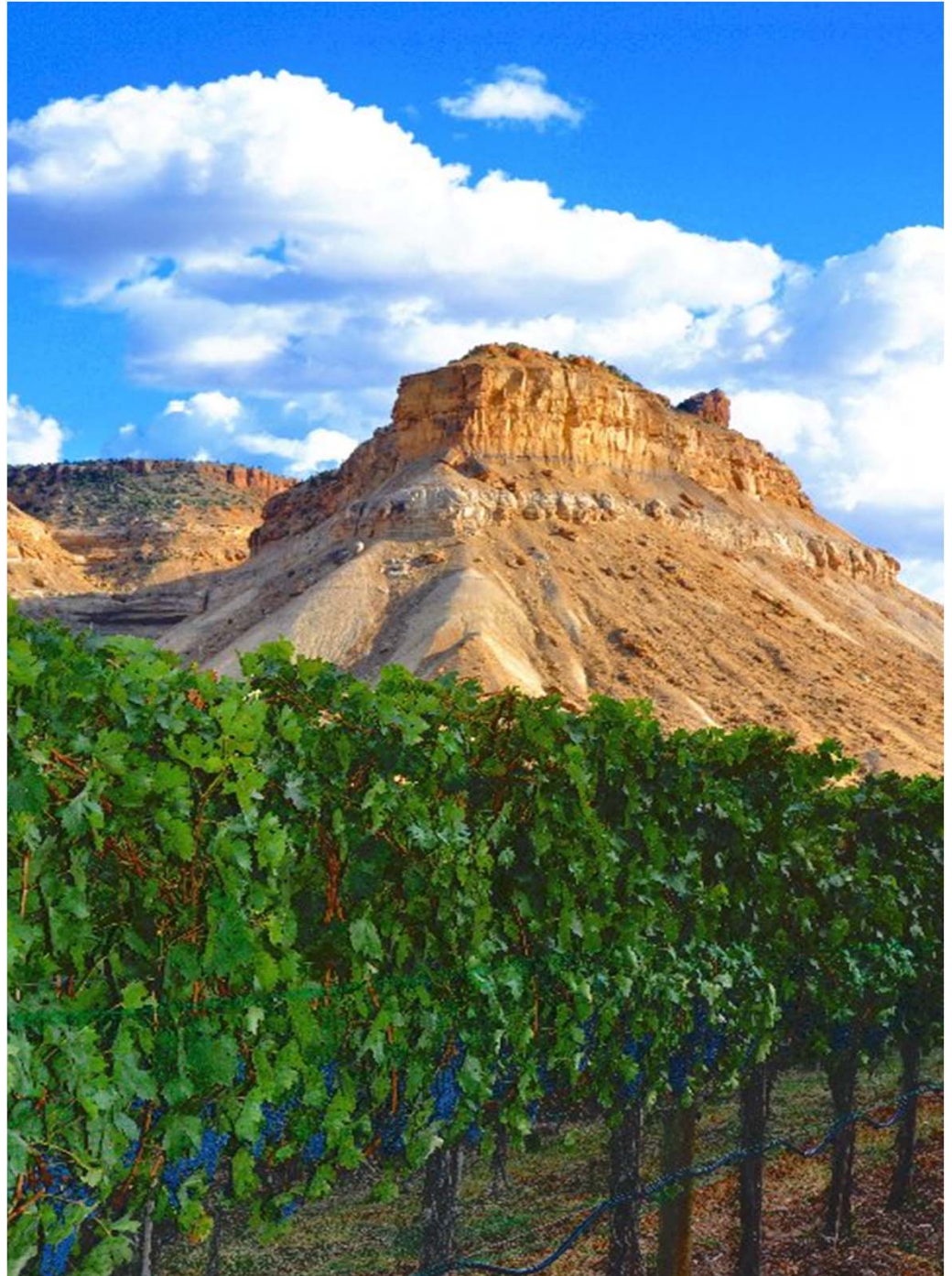


# The Colorado Wine Specialist Program



# Colorado Wine Specialists

## What should they know?

A Colorado Wine Specialist should demonstrate knowledge of:

Major physiographic regions of Colorado

- Mountain ranges
- Significant Rivers
- Geographic features which influence winegrowing

AVAs within Colorado and the history of Colorado viticulture

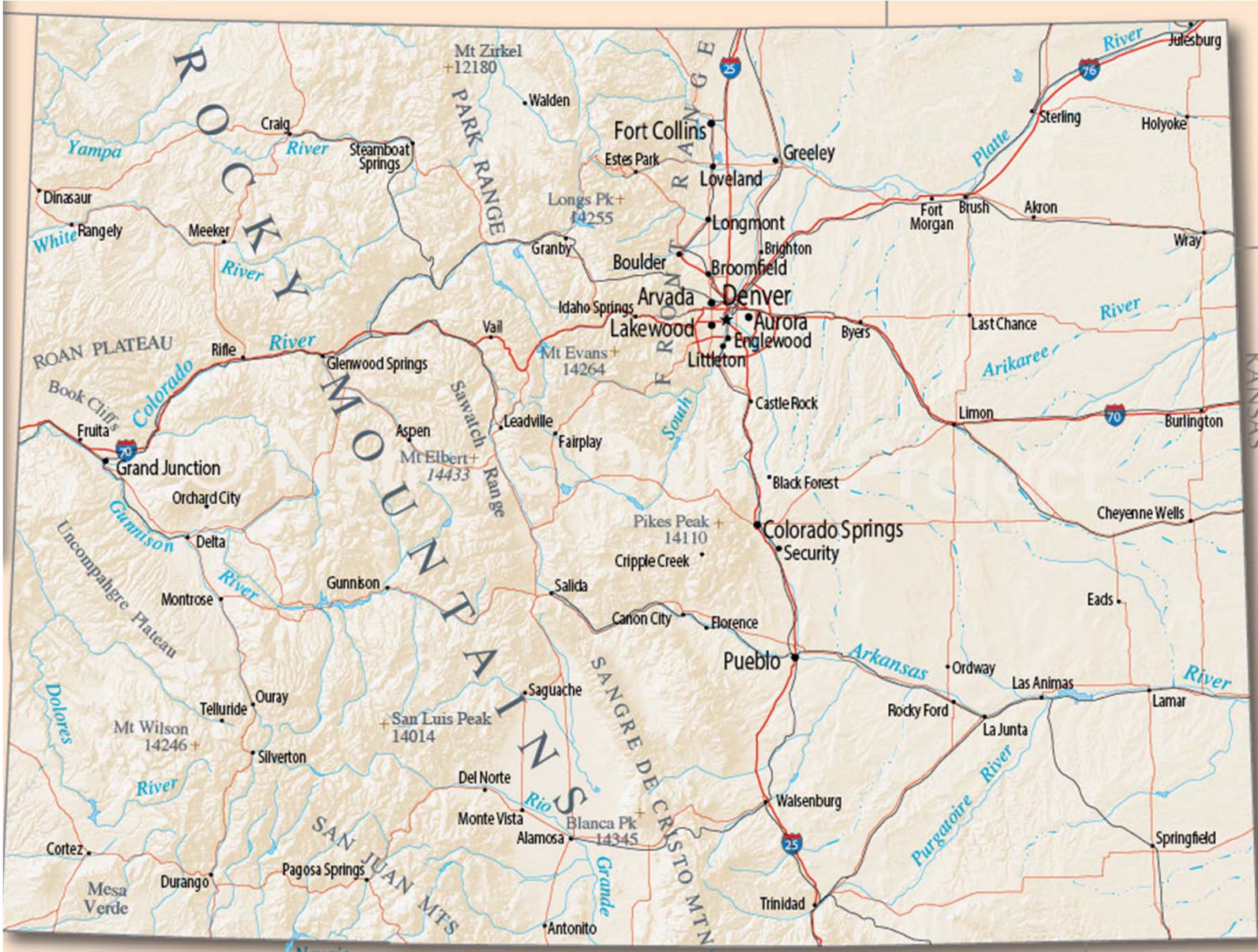
Basic facts of viticulture and vinification

Wine grapes grown in Colorado

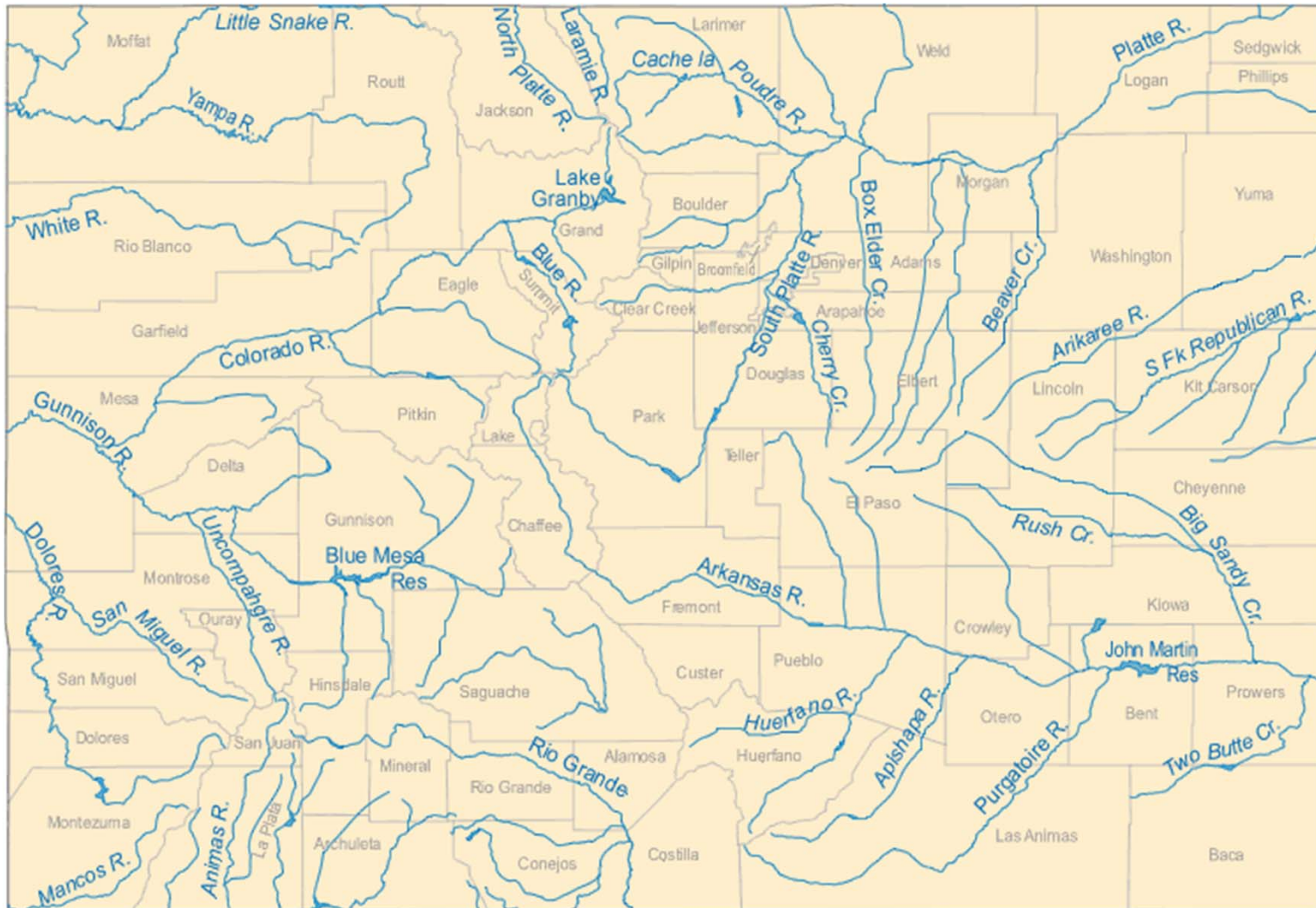
An understanding of how Colorado wines fit in the local/domestic/worldwide wine business

An understanding of how Colorado wines compare to wines of other regions

# Colorado - Prairie, Peaks & Plateaus



# Colorado Geography - Rivers



# Colorado Geography - Mountains



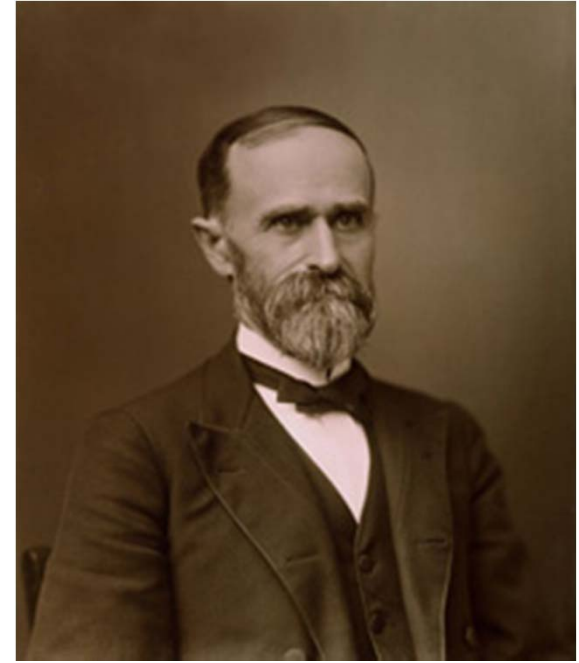
# Colorado Wine – Early History

1883 – First grapes planted

1890 – “Governor” Crawford plants 60 acres

“The finest varieties of European grapes, such as the Black Hamburg, Flame Tokay, Zinfandel, Sultana, Muscat and Malaga grow to perfection in the open, and this is the only valley in the State where it is possible to grow them at all.”

—*The Resources of Mesa County, Colorado and the Advantages and Opportunities it has to Offer, c. 1897*



A SECTION IN PEACH DAY PAVILION—September 8, 1897.

- 1909: U.S. Dept of Commerce Census reports more than 1 million lbs. of grapes from over 1000 farms
- 1916: Colorado beats the country in passing Prohibition

# **MODERN COLORADO WINE HISTORY**

**1968 - Gerald Ivancie  
establishes Ivancie Cellars  
– making wine using  
California grapes**

**1973-1975 First wine grape  
vineyards planted**

**1978 – Jim & Anne Seewald  
of Colorado Mountain  
Vineyards release the first  
commercial wine from  
Colorado grapes**



# Colorado Wine Facts

**105 licensed wineries today**

**5 in 1990**

**2 federal AVAs**

**1000? producing acres**

**Virtually all vinifera**

**Production increasing 11+% per annum for the last decade**

**Vineyards compete with other fruits**

**Hybrids showing promise in new areas**





# Colorado Wine Facts (cont'd)

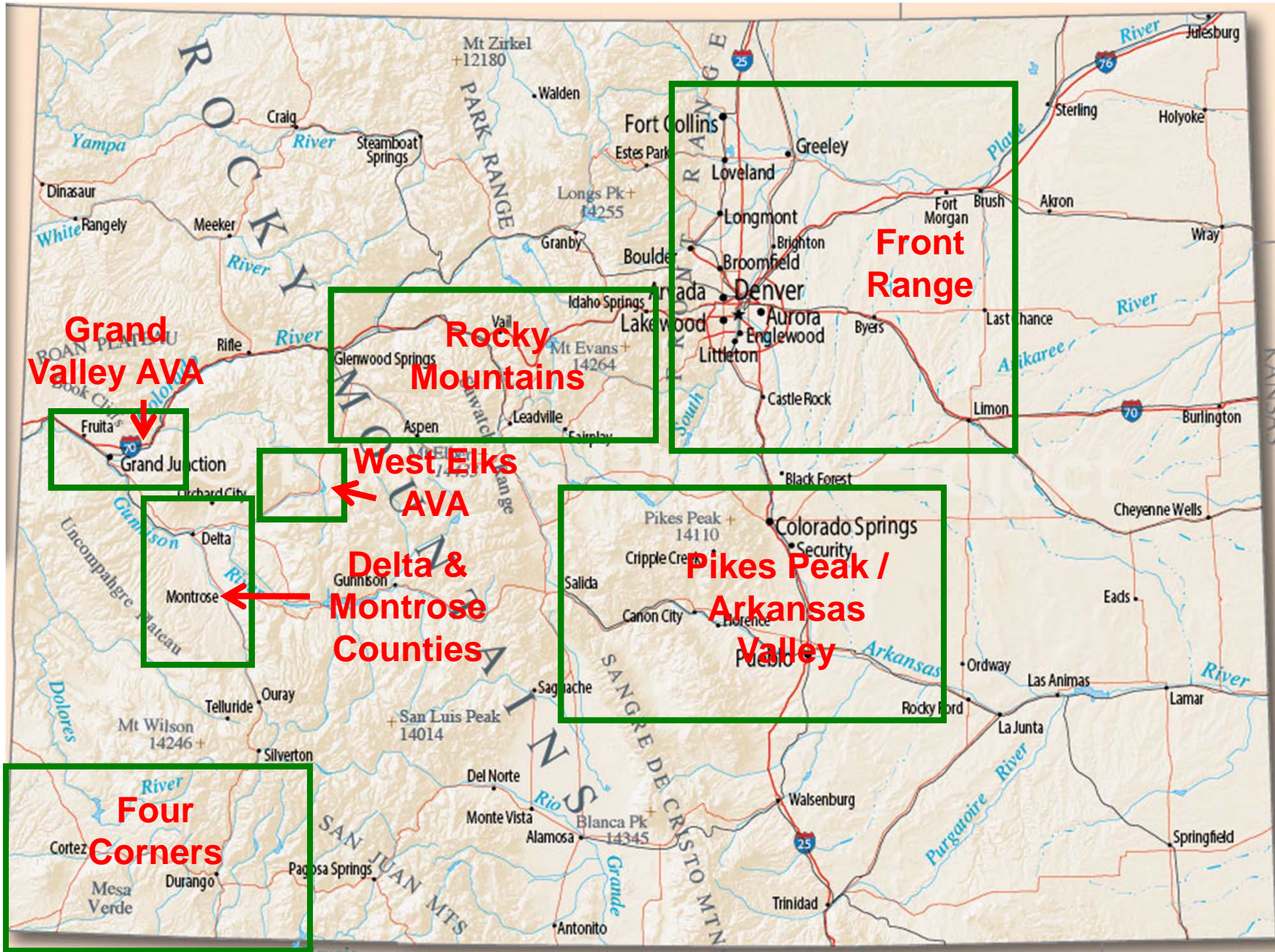
Average yield statewide  
(2012 estimate):  
2.4 tons/acre at \$1480/ton  
average price

Production: over 1.26  
million liters or 140,000  
cases (2012)

Over 11 fold increase in  
CO production since 1995

2.02% market share





**Grand Valley AVA**

**Rocky Mountains**

**Front Range**

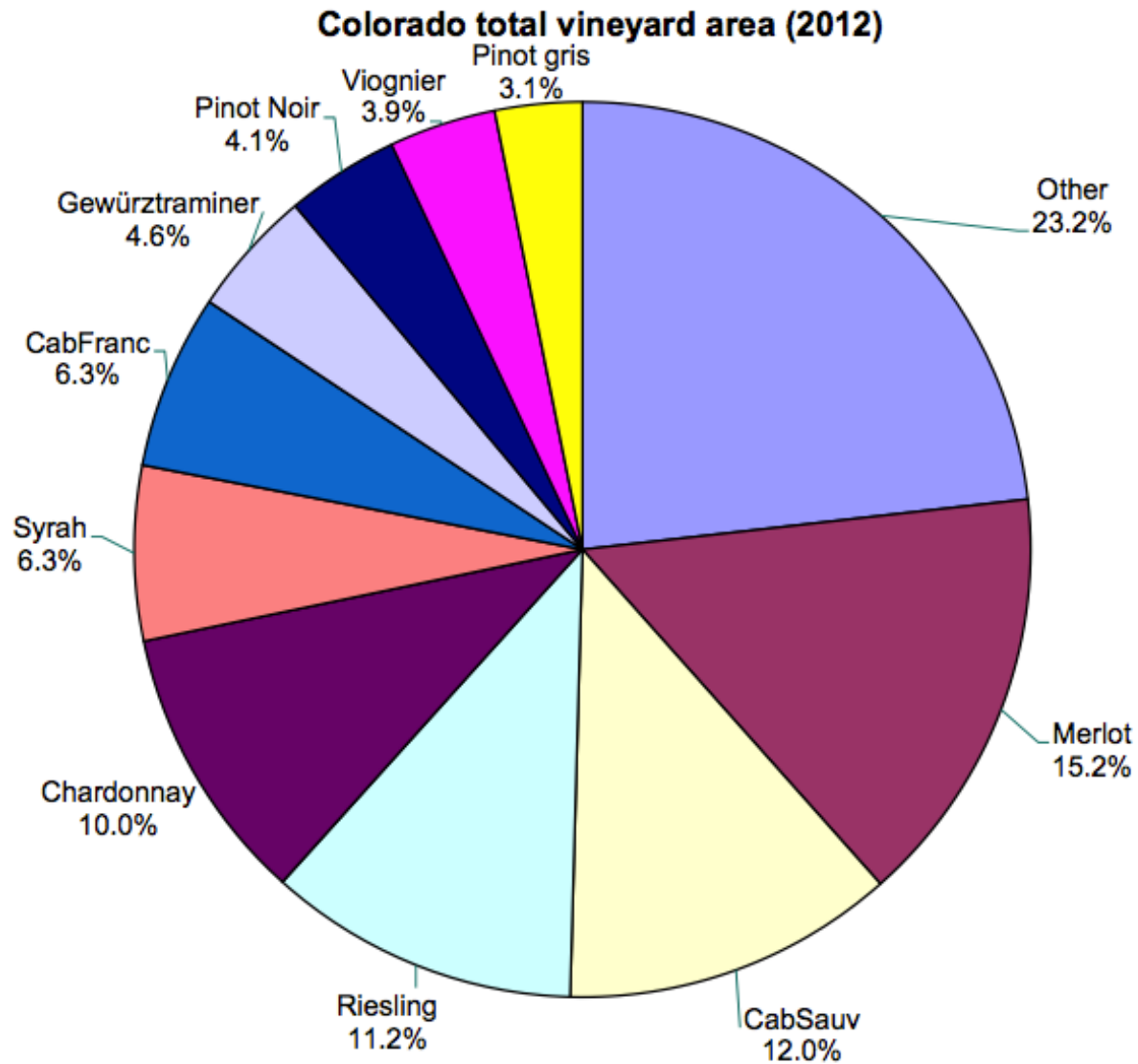
**West Elks AVA**

**Delta & Montrose Counties**

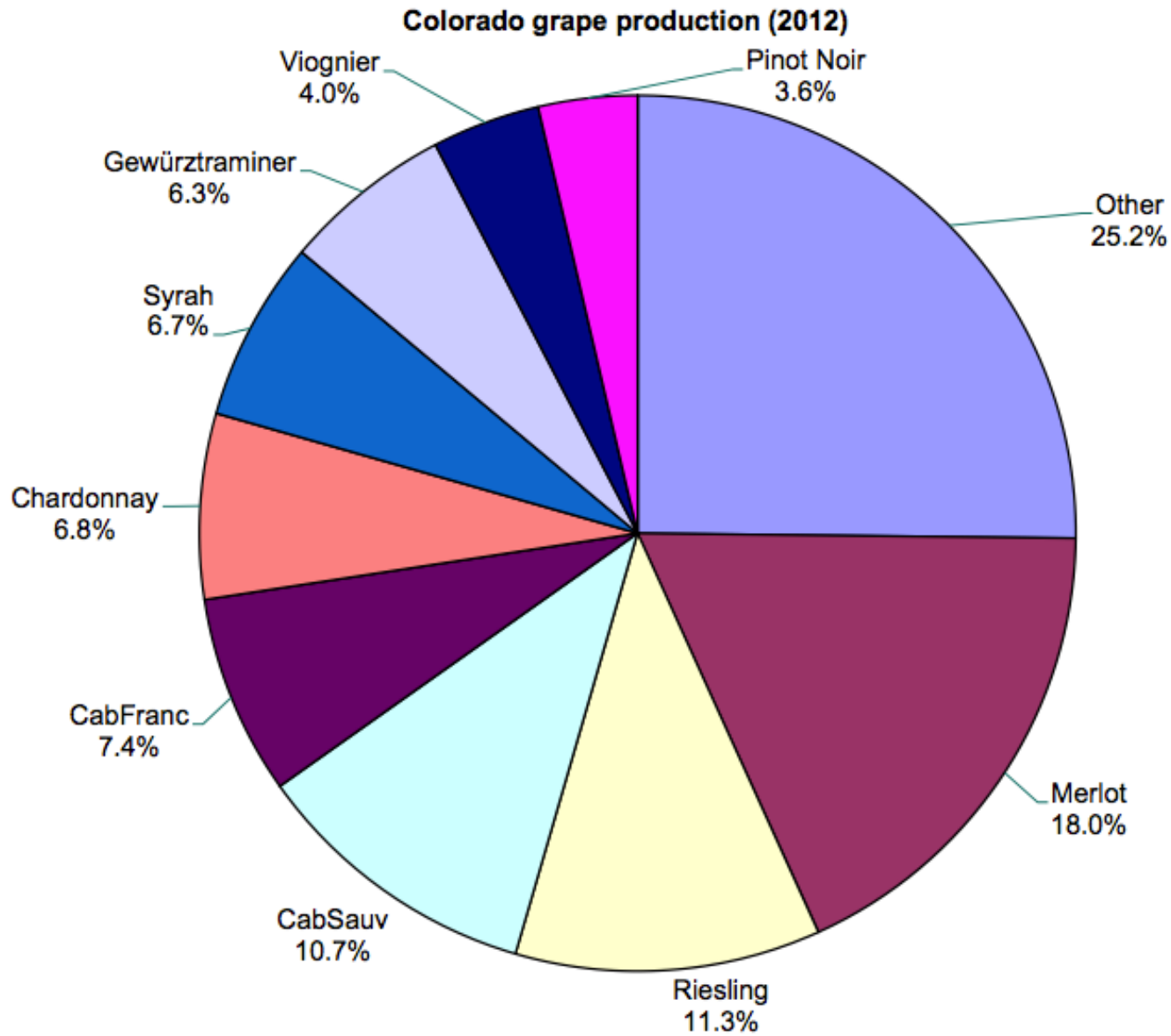
**Pikes Peak / Arkansas Valley**

**Four Corners**

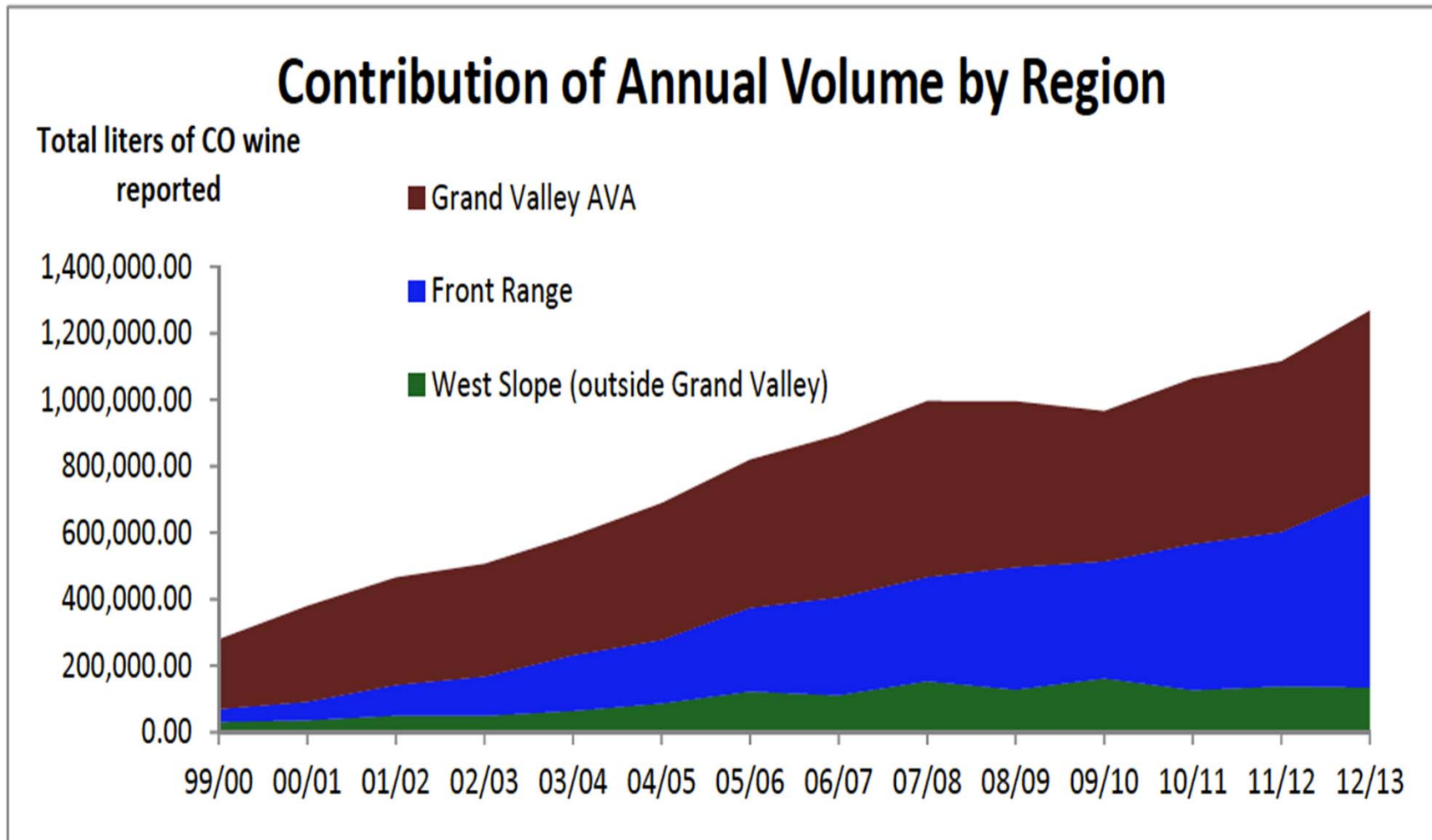
# Grape Varieties Planted



# Colorado Grape Production



# Where Colorado Wine Sales Originate



# Growth of Colorado Vineyards

Producing Vineyard  
Area (estimated)

1984 – 23 acres

1989 – 219 acres

1994 – 380 acres

2001 – 528 acres

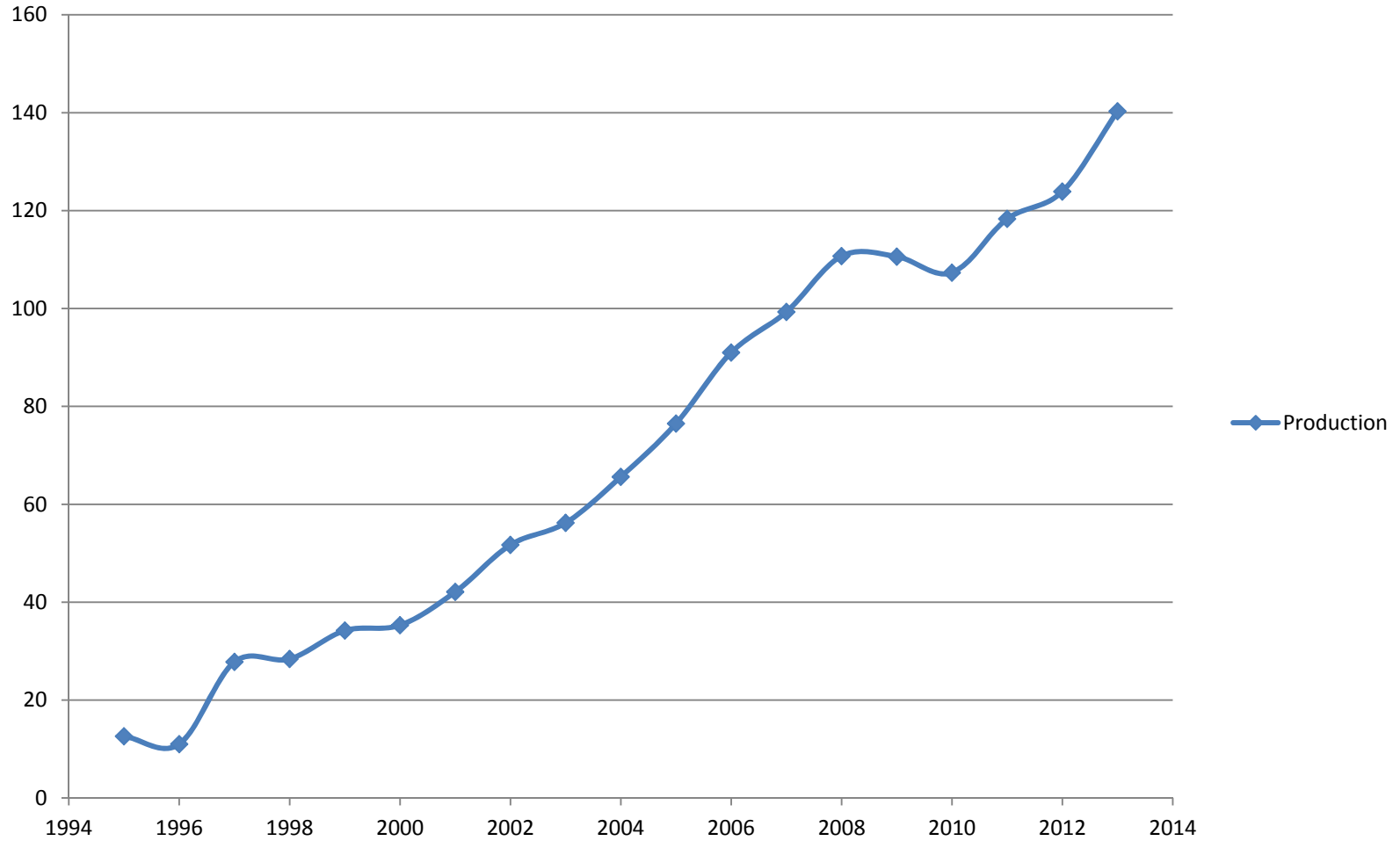
2006 – 710 acres

2012 – 1000  
acres?



# Production Volume is Growing Too

Estimated Colorado Wine Production (9L cases x 1000)



# Colorado's Natural Advantages

- High diurnal temperature shift allows vines to retain natural acidity
- Dry Climate means fewer mold and fungal problems
- Cold winters keep many pests away
- Less need for herbicides & pesticides, etc.
- Irrigation adds control over vine development
- Grapes require less water than other crops





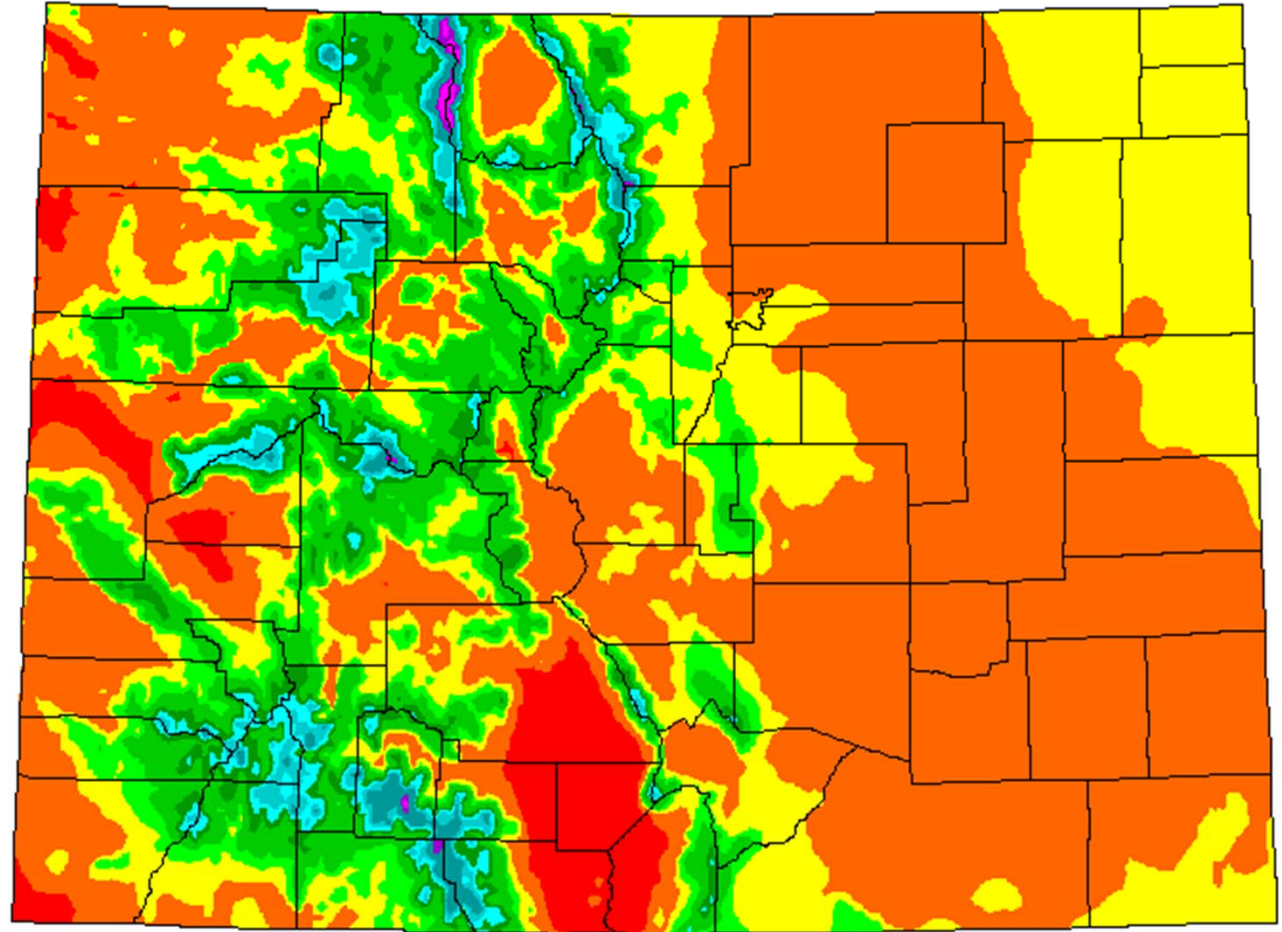
# Viticultural Challenge – Irrigation is Necessary

Average Annual  
Precipitation

Green = 20"-35"

Blue >35"

All areas with  
the required 20"  
of precipitation  
are too elevated  
for vineyards



# Early Grand Valley Irrigation History

## DeBeque Canyon Diversion - 1882



# Severe Winter Damage in Colorado

1989  
1996  
2009  
2013

## Vinifera

### Grapes:

Significant vascular  
damage begins at  
2-4° F

Vine Kill occurs at -  
15° F

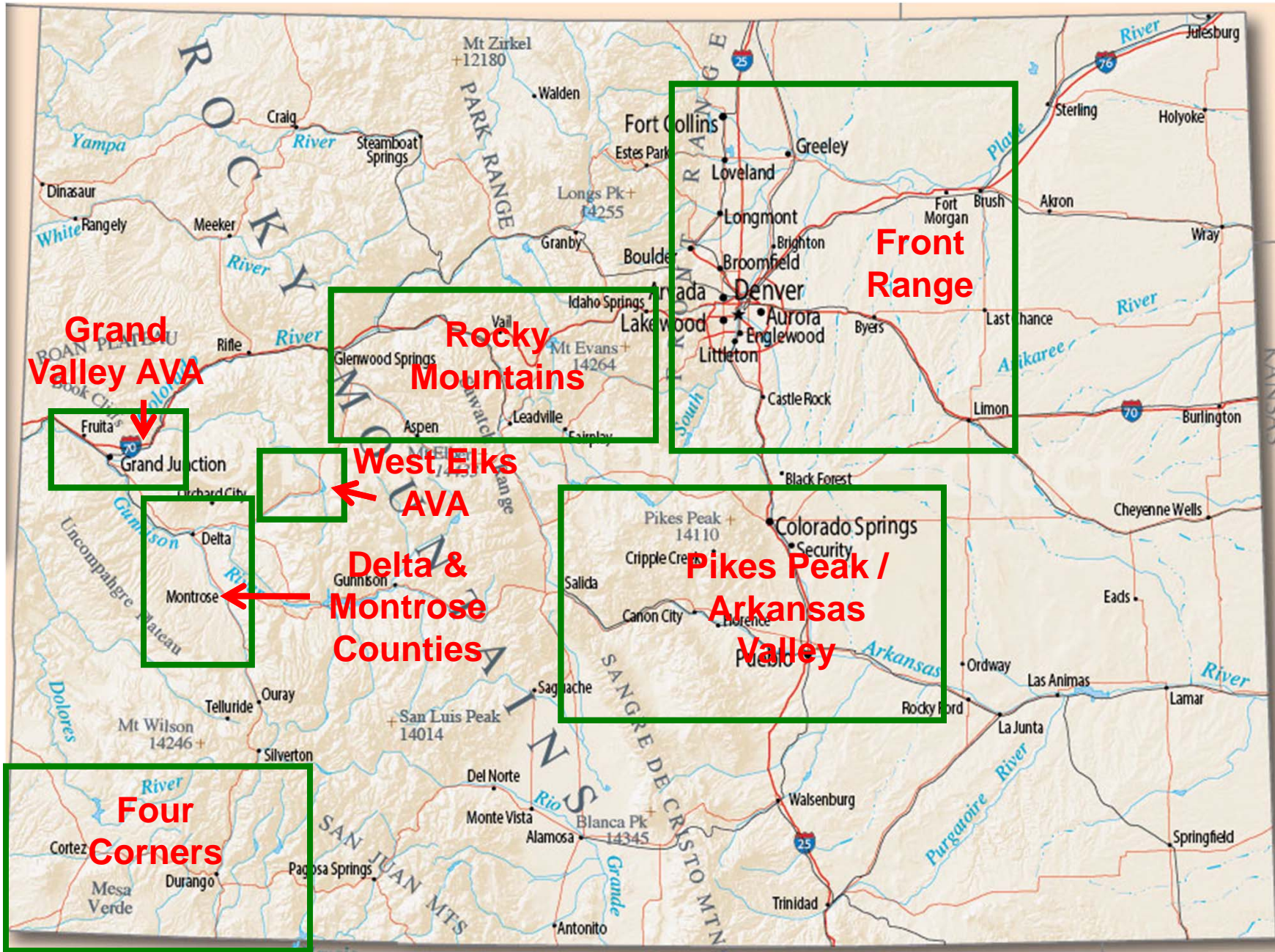


### **COLD HARDY HYBRID RED GRAPES**

Frontenac -35° F  
Marquette -35° F  
St. Croix -32° F

### **COLD HARDY HYBRID WHITE GRAPES**

La Crescent -36° F  
St. Pepin -26° F  
Vignoles -20° F



**Grand Valley AVA**

**Rocky Mountains**

**Front Range**

**West Elks AVA**

**Delta & Montrose Counties**

**Pikes Peak / Arkansas Valley**

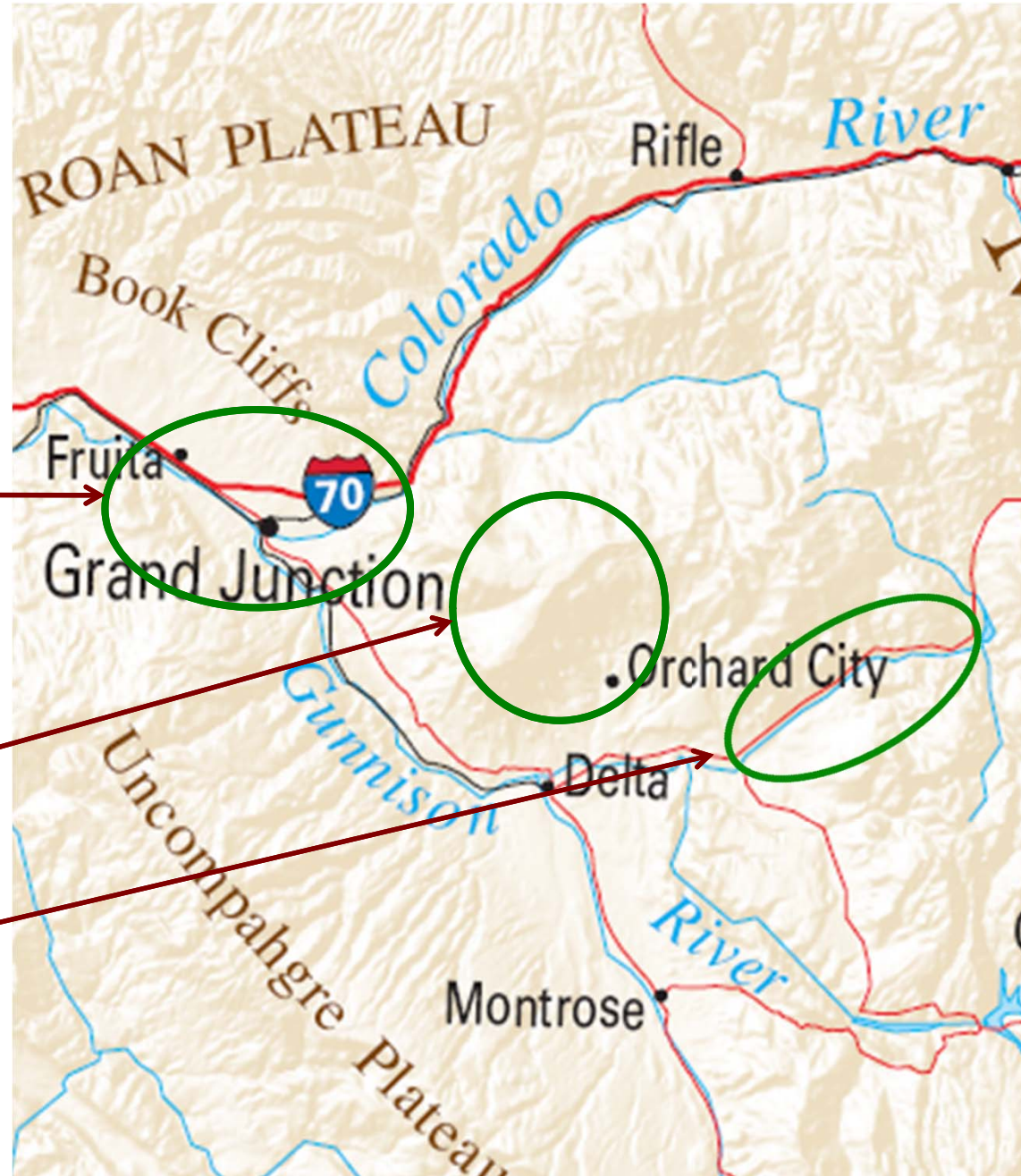
**Four Corners**

# The Heart of Colorado Wine Country

Grand Valley AVA

Grand Mesa & Surface Creek

West Elks AVA



# The Grand Valley

**28 wineries**

**Follows Colorado River**

**Elevation: 4500-4800 ft.**

**Precipitation: approx.  
8-9" annually**

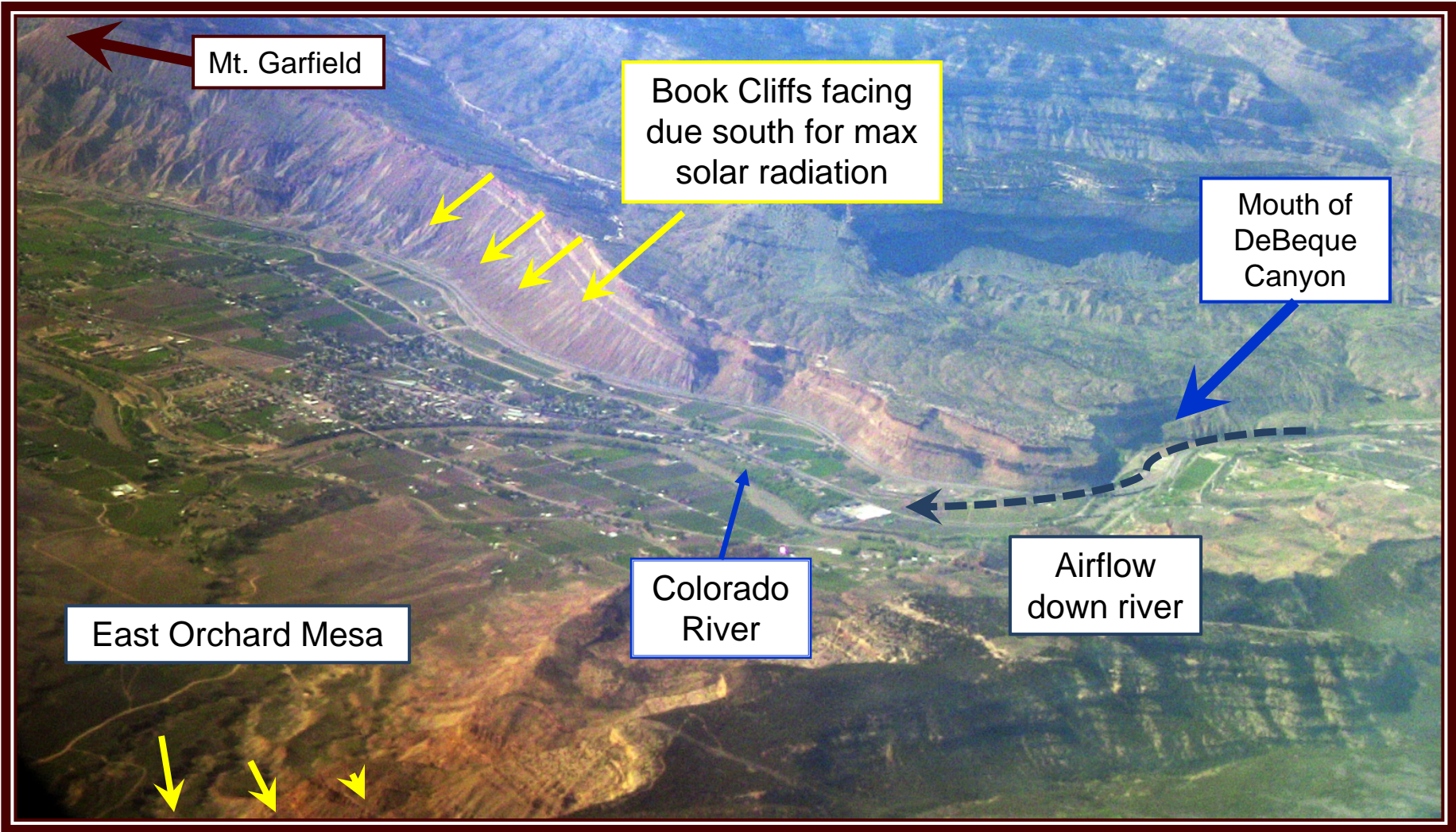
**Varietals:  
Bordeaux and Rhône**

**Soils:  
pH: 7.2-8.5, very high;  
Low organic matter  
(~1%)**

**Moderate to high salt  
content, replenished  
from CO River water**



# The Grand Valley - 4500' - 4800'



# Grand Valley - Book Cliffs





# Comparative Growing Seasons

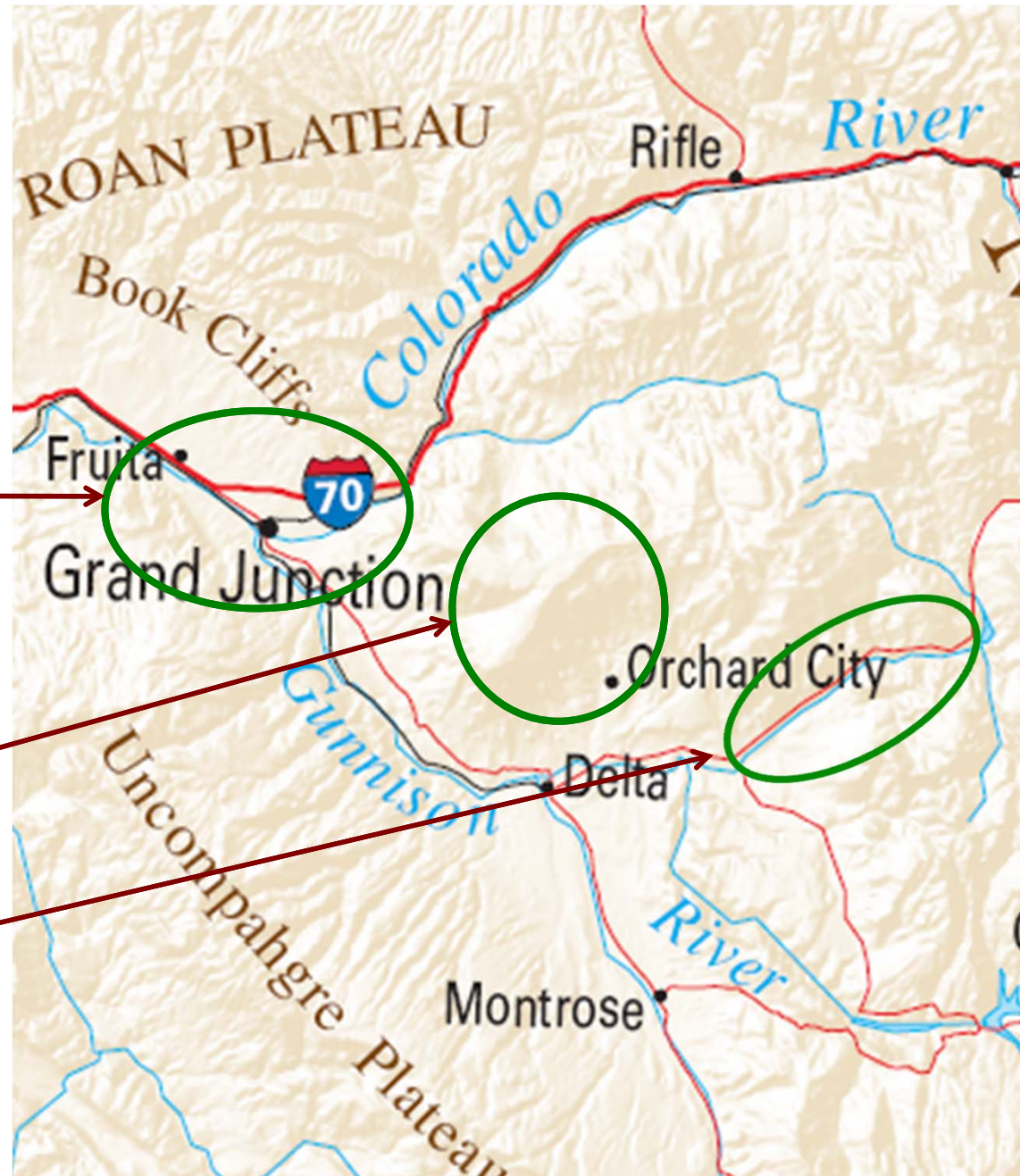
Area	Growing season	Precip	Degree Days
Cedaredge	139	11.6"	2525
Delta	138	7.3"	2893
<b>Palisade</b>	<b>183</b>	<b>9.1"</b>	<b>3822</b>
Paonia	128	12.43"	2404
Ft. Collins	151	15.9"	2335
Cortez	126	13.0"	2423
McMinnville	150	41.1"	2157
St. Helena	232	35.1"	3707

# The Heart of Colorado Wine Country

Grand Valley AVA

Grand Mesa & Surface Creek

West Elks AVA



# The West Elks AVA

**On the North Fork of  
the Gunnison River –  
includes Paonia and  
Hotchkiss**

**12 wineries**

**High Elevation  
(5600-6400 ft.)**

**Cooler temperatures**

**Pinot Noir**

**Riesling**

**Gewürztraminer**

**Chambourcin**



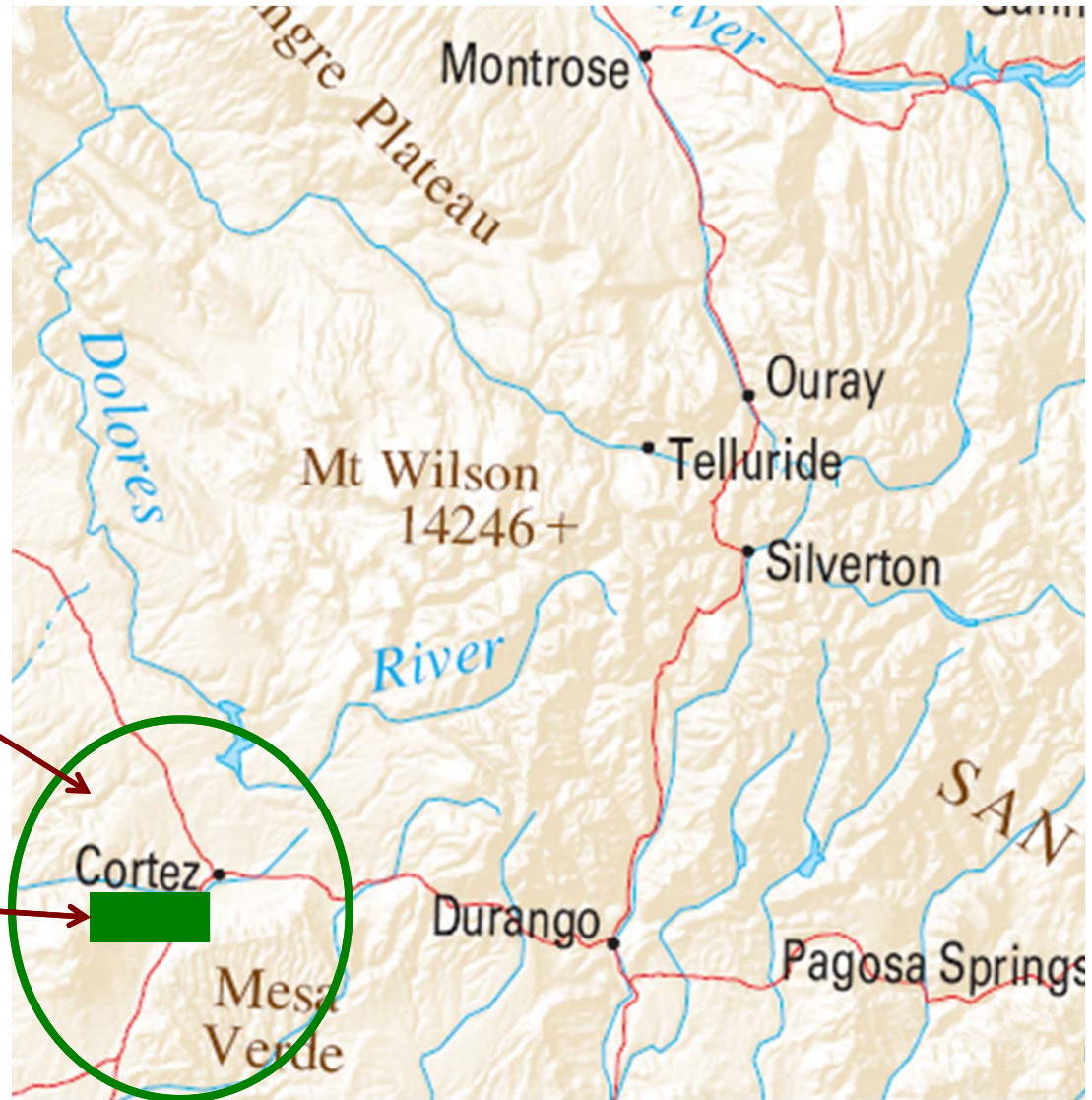
# Comparative Growing Seasons

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# FOUR CORNERS

MONTEZUMA  
VALLEY

McELMO  
CANYON



# MONTEZUMA VALLEY

**HIGH  
ELEVATION  
6000'-7000'**

**13" Average  
Rainfall**

**2423 Degree  
Days**

**Porous,  
Aeolian (wind-  
blown) soils**



# Comparative Growing Seasons

Area	Growing season	Precip	Degree Days
Cedaredge	139	11.6"	2525
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# COLORADO FRONT RANGE

Many Wineries but few vineyards

Front Range 10° F avg. colder in winter than West Slope

Extreme fluctuations in winter

Subject to very cold Arctic air masses

Cañon City and Arkansas River Valley





# Comparative Growing Seasons

Area	Growing season	Precip	Degree Days
Cedaredge	139	11.6"	2525
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# 2010 Harvest - Aargh!

Severe Cold in December 2009 damaged vines

Worst yield since 1991 (1.16 tons/acre)

Gross return per acre dropped from \$3,326 (10 year average) to \$1561

Merlot, the state's leading variety in acreage for >10 years, ranks only fourth in production

Riesling ranks number one in production

The vineyard area removed exceeds the new area planted

# 2011 Harvest

Incomplete recovery from 2009 winter damage

Average Yield improves to 2.13 tons/acre

Average financial return improves to \$3034/acre

Average grape price rises to \$1425/ton

Merlot, the state's leading variety in acreage, ranks only third in production

Cabernet Sauvignon ranks number one in production, with Riesling second

The vineyard area removed exceeds the new area planted – the second year in a row

# 2012 Harvest

Yields recovered from 2009 winter kill

Merlot regains top producing status

Slightly more vineyards removed than planted

Gross Revenue per acre reached \$4215 – just surpassing 2009 level

More winter damage in January of 2013

# Grapes in “Other” Category – Part 1

Albariño, Aurora, Barbera, Bianca, Brianna, Baco Noir

Canadice, Carmenère, Carmine, Catawba, Cayuga white,  
Chambourcin, Chancellor, Chardonel, Chenin blanc, Concord,  
Corot Noir, Counoise, Cynthiana

Dolcetto, Edelweiss, Esprit, Fredonia, French Colombard,  
Frontenac, Frontenac Gris

Gamay Noir, Graciano, Grenache, Himrod

La Crescent, La Crosse, Lemberger, Leon Millot

# Grapes in “Other” Category - Part 2

Malbec, Marechal Foch, Marquette, Montepulciano,  
Mourvèdre, Muscat Blanc, Muscat Hamburg, Muscat Ottonel

Nebbiolo, Noiret, Norton, Orange Muscat

Petit Verdot, Petite Sirah, Pinot Blanc, Pinot Meunier, Primitivo

Rkatsiteli, Roussanne, Sangiovese

Sauvignon Blanc, Sémillon, Seyval Blanc, Souzão, St. Croix,  
St. Laurent, St. Pepin

Tannat, Tempranillo, Tinto Cão, Tinta Madeira, Touriga  
Nacional, Traminette

Vernaccia, Vidal, Vignoles, Zinfandel, Zweigelt

# CSU Trial Grape Varieties

Zweigelt

Barbera

Cinsaut

Garnacha

Marsanne

Roussanne

Chambourcin

Vidal

Verdejo

Refosco

Portugieser

Marquette

MN 1200

NY 76.0844.24

(aka Aromella)

And more!

Marquette

Carmenère

Durif

Malvasia Bianca

Mourvèdre

Souzão

Tocai Friulano

Touriga Nacional

Alvarinho

Auxerrois

Grüner Veltliner

NY 81.0315.17

Cabernet Dorsa



# Ongoing Research Subjects

- Investigation of Reliable Grape Varieties for Colorado's climate(s)
- Evaluation of Rootstocks for Colorado Vineyards
- Viticultural Methods to Employ for Mitigation of Cold Sensitivity of Vines
- Evaluation Trellising Systems for Consistent Production



# Marketing Colorado Wines

- Consumer Awareness/Acceptance of Colorado Wines continues to be a 'problem'
- With greater interest in local produce, both in restaurants and in farmer's markets, Colorado wine producers have a unique opportunity to offer their local wines with local foods
- Colorado wines can and do compete with wines from California and other winegrowing areas
- Small wineries have difficulty disseminating their message, so take the time to discover what's good in our own back yard

# Marketing Colorado Wines

Know how Colorado wines fit into the international wine market

Know other regions that use the same grapes as Colorado

**BORDEAUX VARIETIES:** Cabernet Sauvignon, Merlot, Cabernet Franc, Malbec, Petit Verdot, Sauvignon Blanc, Sémillon

**BURGUNDY:** Pinot Noir, Chardonnay

**LOIRE VALLEY:** Chenin Blanc, Sauvignon Blanc, Cabernet Franc

**RHÔNE VALLEY:** Syrah, Grenache, Cinsaut, Mourvèdre, Viognier

**ITALY:** Sangiovese (Tuscany), Nebbiolo (Piedmont)

**AUSTRIA:** Blaufränkisch (Lemberger)