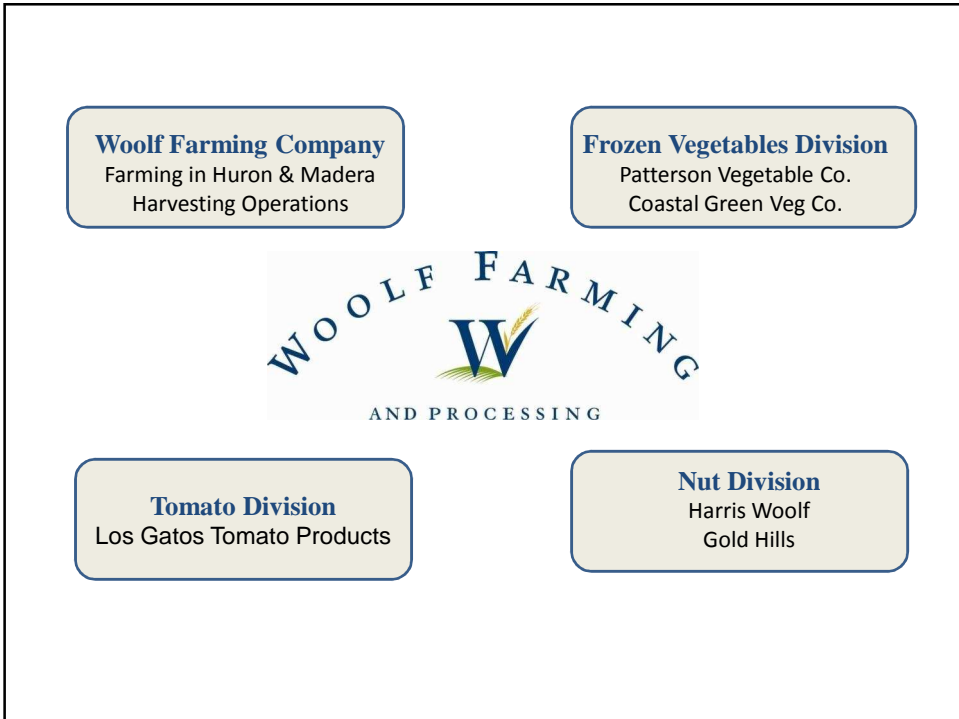




## Almond Production

### Today's Outline...

- Who's Woolf Farming & Processing
  - Harris Woolf & Gold Hills
- Almonds: A Global Perspective
  - Where Almonds are grown & why
- A Snapshot of California Almond Production
  - Regional Growth and Varieties
- Current Challenges/Constraints
  - Costs & Available Resources
- Trends & Forecasts



## Our Nut Division Includes:





# The Global Picture

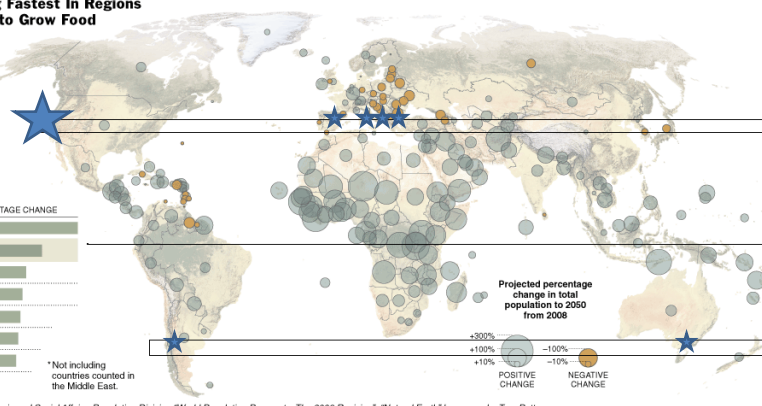
## Populations Are Expanding Fastest In Regions Where it Is Most Difficult to Grow Food

The world's population is projected to grow to 9 billion before 2050. Proportionally, the countries in Northern Africa and the Middle East are among the fastest growing. But those are the world's driest regions, and by 2050, fresh water there will be twice as scarce.

### Projected total population

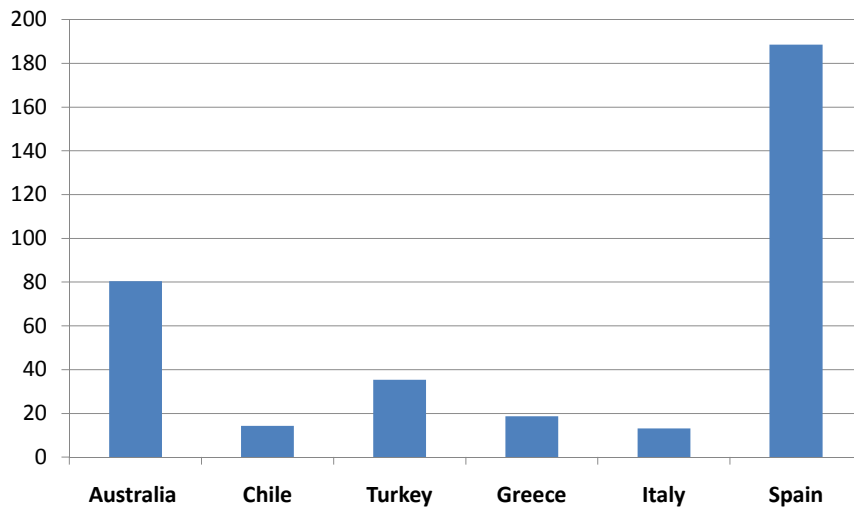
IN MILLIONS	2008	2050	PERCENTAGE CHANGE
Sub-Saharan Africa	827	1,761	+113%
Middle East and Northern Africa	364	595	+ 63
Oceania	35	49	+ 41
World	6,750	9,191	+ 36
Latin America and the Caribbean	579	769	+ 33
Northern America	342	445	+ 30
Asia*	3,872	4,909	+ 27
Europe	731	664	- 9

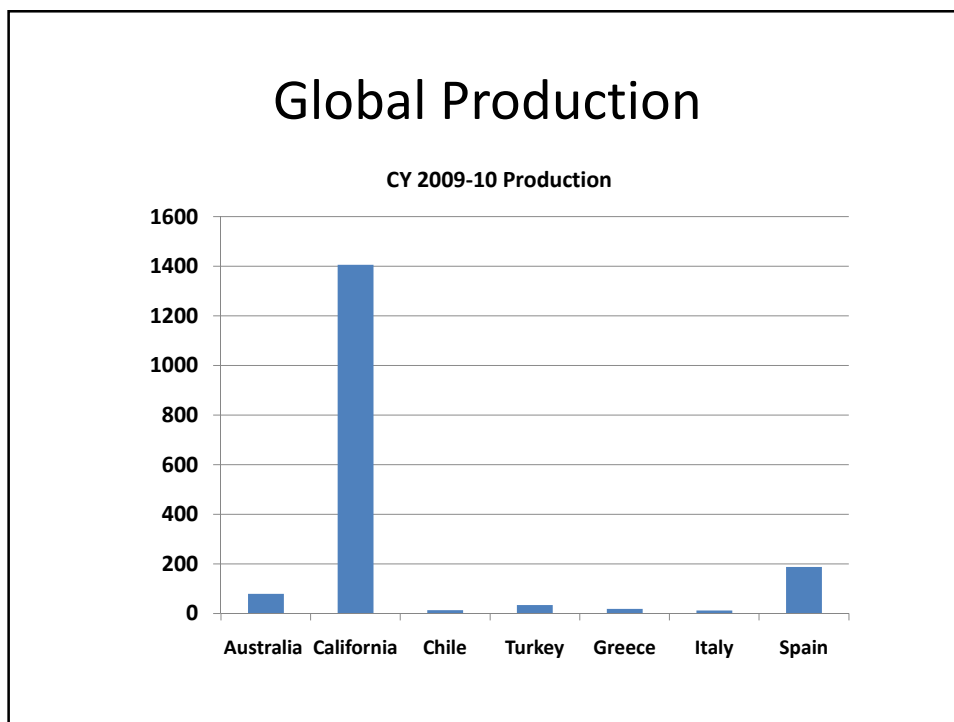
\* Not including countries counted in the Middle East



Sources: United Nations, Department of Economic and Social Affairs, Population Division "World Population Prospects: The 2006 Revision"; "Natural Earth" base map by Tom Patterson

## Global Production w/o Calif.





## So...Why does California have such a clear lead in Production?

Right Latitudes (35-40 deg)

Deep, well developed soils

An entrapped air basin

Terrific Infrastructure:

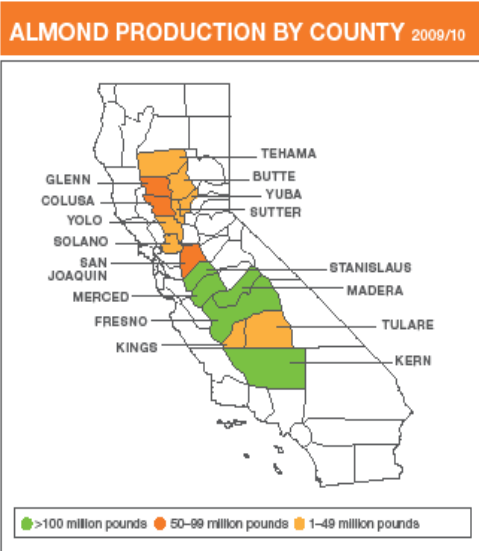
- The University of California
- The Water Projects
- Great transportation
- Supporting Industries
- Stable Capital Markets &
- Political Systems

The Almond Board and The Marketing Order.



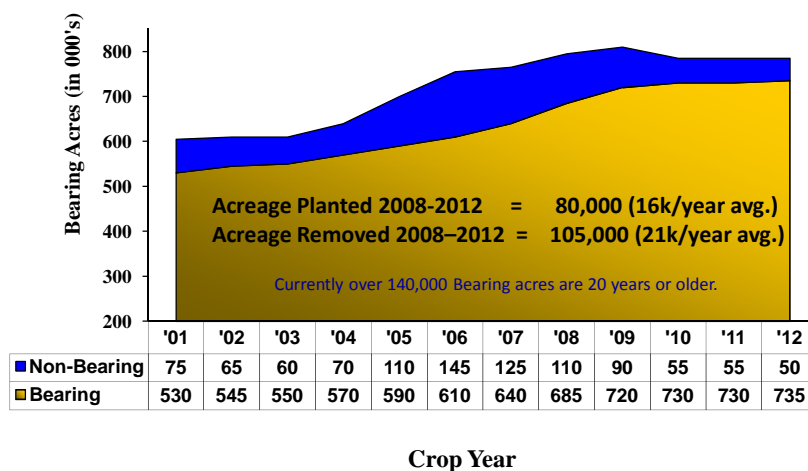
# A Closer Look at California

Over 80% of California's almond crop is grown in the Southern Region of the Central Valley

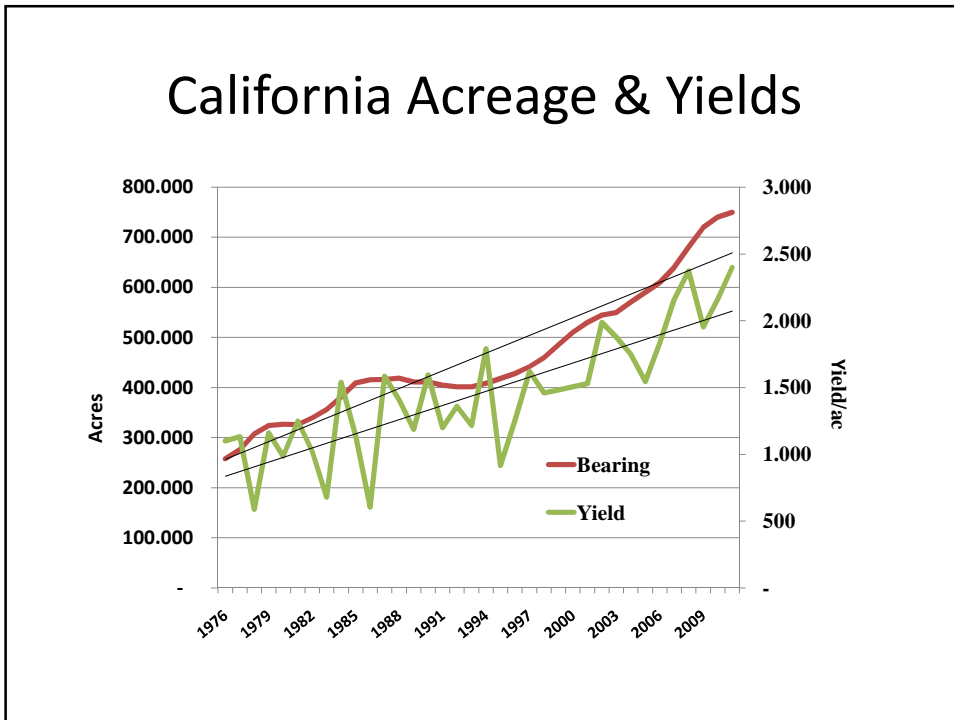
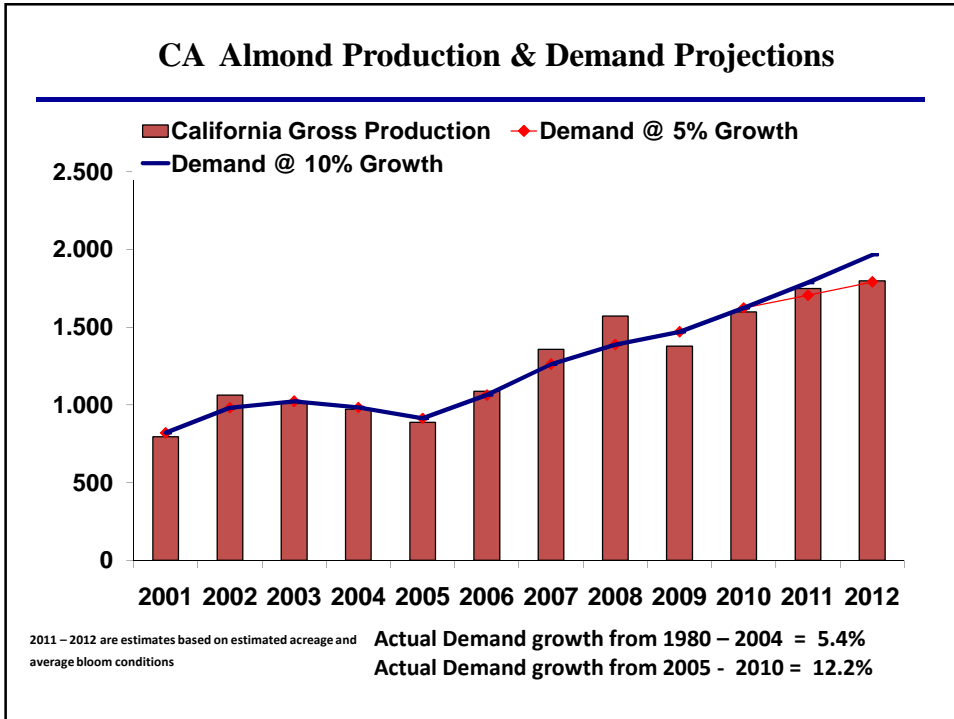


## Almond Acreage Growth in California

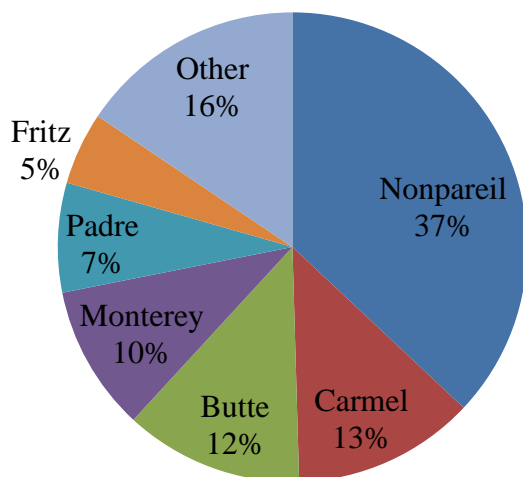
Although a large number of new plantings occurred in 2004-2007 (190,000 + acres), a slower pace of plantings is expected due to lower almond prices and water shortages.



Note: 2001-2009 are actual figures and 2010-2012 is estimated



### California's Almond Acreage by Variety



#### Typical Crop Costs in CA

Almond Break Even	
Breakeven Price (Net of Processing)	\$ 1.42
Average Lbs per Acre	2,300.0
<b>Grow &amp; Harvest Cost</b>	
	<b>\$/Acre</b>
Supervision	69
Pruning & Brush Removal	142
Replanting	4
Tractor Work	27
Polinators	363
Land Oriented	350
Material Application	184
Materials	505
Water & Irrigation	1,000
Maintenance/Supplies	53
Harvesting	180
G&A	150
Depreciation- Orchard	239
<b>Total Grow &amp; Harvest Cost</b>	<b>3,266</b>

#### Assumptions:

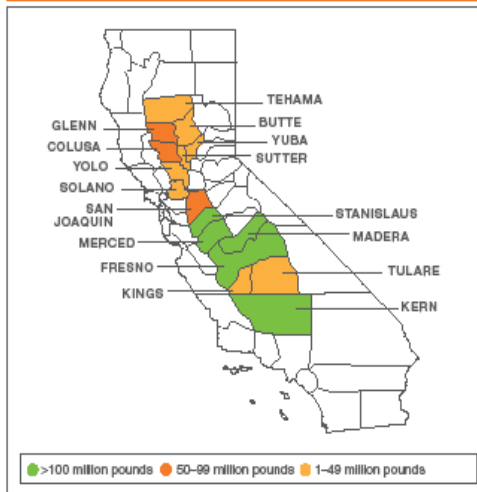
- 2.5 hives/acre @ \$145/hive
- 250-300 units of N & K
- Dormant, 2 mite, 2.5 fungicide sprays
- 4 acre feet of water
- Diesel @ \$2.5/gal
- Land cost +- \$4,500/ac
- Planting configuration: 22' X 16', 125 trees/ac
- Drip Irrigation

**At Woolf Farming...Average Yields are 3,000 Breakeven is less than \$1.10/lb.**

## A Major Challenge in California: Water

**85% of California's almond crop is grown in the Southern Region of the Central Valley... And is Highly Dependent on Surface Water Deliveries from the North...**

ALMOND PRODUCTION BY COUNTY 2009/10



## Fish versus Food

Delta Smelt



Central Valley Project



## 5-10 Year Trends in Almond Production...

Given current price spreads between NP and other varieties of \$.75 – 1.00/lb, growers will plant more NPs in the future.

In the face of growing demand, CA growers will continue to plant almonds. Using long-term growth rates for acreage, there should be approximately 1MM bearing acres in CA

Approximately 200,000 acres will be taken out of production and replaced by higher producing orchards.



## 5-10 Year Trends in Almond Production...

Yield increases will accompany the increase in acres resulting in crops, 10 years from now, approaching 2.5b lbs per year.

Land values will continue to increase in CA due to greater demand for specialty crops of all kinds...and a reduction in acreage due to urban encroachment and unreliable water deliveries

Farm costs will continue to climb and will be partially offset by yield and price.



## Those who will succeed the most in the future will be those who...

- 1) have purchased good land at lower prices
- 2) are on top of their costs and manage their resources well
- 3) consistently out-yield the state average
- 4) have invested in drip irrigation, planted the right varieties and sell their crop to the right people
- 5) continue to reinvest in their operations to be low cost producers of high grade almonds



WOOLF FARMING  
  
AND PROCESSING

## Thank You