# Brief Facts

Nevada climate similar to or better than Washington State

Washington State has 61,000 acres of grapes

Washington State’s grape and wine production is valued at more than $1 billion

$8.6 billion impact on Washington St economy

Why Not Nevada?

Promising varieties include:
- Gewurztraminer
- Riesling
- Lemberger
- Cabernet Sauvignon
- Merlot

“The UNR program is an outstanding educational experience!”
Bill Patterson- Former VP of Instruction and Research, Foothill Community College

“Visiting the experimental winery at UNR is a must”
- Barbara Keck, WineBizNews and Mountain High Wines

---

## Nevada Wine, great potential!

G’day fellow Nevadans,

I believe we have great potential to develop a grape and wine industry here in Nevada. We have successfully grown grapes and made excellent wines here in Northern Nevada since 1995. It is a multi-billion dollar industry in this country. Do you have an entrepreneurial spirit? Will you join us in this great adventure? Now is the right time!

Grant R. Cramer
Professor of Biochemistry and Molecular Biology

---

## Nevada Wine Research at UNR

We began a wine research program in 1995. Initially, the research program started off small with a simple varietal trial investigation into whether or not it was possible to grow quality wine grapes in Northern Nevada. One development from that program was the discovery that regulated-deficit irrigation improves grape quality without significant loss of production. Regulated deficit irrigation has reduced water usage by 80% compared with previous years and significantly improved the quality of grape musts and wines, producing more intense flavors, colors and fruity aromas. One clear threat to a successful Nevada viticultural industry has been obvious: cold temperatures. The region is susceptible to the occasional spring frost or a severe artic cold front in the middle of winter. Recent UNR research has led to the discovery of a grape gene that improves cold tolerance in grapes. Deficit irrigation also has improved winter survival of the vines and increased the quantity of human-health compounds in grapes.

We are currently investigating ways to improve drought tolerance in grapes. We are sequencing the Cabernet Sauvignon genome and developing Omics technologies for cutting-edge plant biology research. We are studying and developing markers to identify when is the optimum time to harvest grapes. This work has been supported by the J. Lohr winery. We are also studying the effects of water deficit and salinity on native grapevines to better improve rootstock for grape production.

We established an experimental winery at UNR in January, 2004. This has been a huge success. We hold classes and workshops to teach interested people in the local practices necessary for successful viticulture and wine making in our area. There is a vineyard adoption program to give hands-on experience.

Our grape and wine research has also been important at the national and international levels. We have received approximately 9 million dollars for grape research in the last 12 years. We organized the Annual Grape Research Coordination Network meetings Dr. Cramer was the Chair of the Steering Committee of the International Grape Genome Program and regularly speaks to others about grapes at meetings all over Europe, Australia and China. He will be teaching this year at the University of Bordeaux as part of his sabbatical there.

---

To get more information see [www.ag.unr.edu/cramer](http://www.ag.unr.edu/cramer) or [wineatunr.blogspot.com](http://wineatunr.blogspot.com)
The Wine Industry Is a Rapidly Growing Market

- California
  - $4.5 billion in grape sales, $23 billion in retail sales in 2013, # of wineries doubled in last 10 years to 3,754
- Washington
  - $166 million in grape sales, $1 billion in retail sales, increased from 19 to 835+ wineries since 1980 (tripling in the last 10 years)

Estimated Washington State Revenues for 2012

- Grape revenue = $166 million
- Winery revenue = $1 billion
- Tourism revenue = $1.06 billion
- Wine-related wages = $1.17 billion
- Total economic impact to Washington State = $8.6 billion
- State and local taxes paid = $237 million

Washington State Trends

- Grape Acreage
- # of wineries

Climate Change in Nevada

- Growing Degree Days
- Reno, NV
- Yakima, WA
- Richland, WA

Viticulture Prediction for Nevada

- Red and Green = Suitable in 2000
- Blue = Suitable in 2040
- Las Vegas
- Phoenix