

= Zinfandel =

Zinfandel ( also known as Primitivo ) is a variety of black @-@ skinned wine grape . The variety is grown in over 10 percent of California vineyards . DNA analysis has revealed that it is genetically equivalent to the Croatian grapes Crljenak Ka?telanski and Tribidrag , as well as to the Primitivo variety traditionally grown in Apulia ( the " heel " of Italy ) , where it was introduced in the 18th century . The grape found its way to the United States in the mid @-@ 19th century , where it became known by variations of the name " Zinfandel " , a name which is probably of Austrian origin .

The grapes typically produce a robust red wine , although in the United States a semi @-@ sweet rosé ( blush @-@ style ) wine called White Zinfandel has six times as many sales as the red wine . The grape 's high sugar content can be fermented into levels of alcohol exceeding 15 percent .

The taste of the red wine depends on the ripeness of the grapes from which it is made . Red berry fruit flavors like raspberry predominate in wines from cooler areas , whereas blackberry , anise and pepper notes are more common in wines made in warmer areas and in wines made from the earlier @-@ ripening Primitivo clone .

= = History = =

= = = Europe ( 6000 BCE ? 1870 ) = = =

Archaeological evidence indicates that domestication of *Vitis vinifera* occurred in the Caucasus region around 6000 BCE , and winemaking was discovered shortly after that . Cultivation of the vine subsequently spread to the Mediterranean and surrounding regions . Croatia once had several indigenous varieties related to Zinfandel , which formed the basis of its wine industry in the 19th century . This diversity suggests that the grapes have been grown in Croatia longer than anywhere else . However , these varieties were almost entirely wiped out by the phylloxera epidemic of the late 19th century , eventually reducing Zinfandel to just nine vines of locally @-@ known " Crljenak Ka?telanski " discovered in 2001 on the Dalmatian coast of Croatia .

The first documented use of the term Primitivo appears in Italian governmental publications of the 1870s . The name derives from the terms *primativus* or *primaticcio* , which refer to the grape 's tendency to ripen earlier than other varieties . This name 's appearance , 40 years after the first documented use of the term Zinfandel , was previously thought to suggest that Primitivo was introduced to Italy from across the Atlantic ; however , this hypothesis has become unlikely since the discovery of the vine 's Croatian origin .

Primitivo is now thought to have been introduced as a distinct clone into the Apulia region of Italy in the 18th century . Don Francesco Filippo Indelicati , the priest of the church at Gioia del Colle near Bari , selected an early ( " primo " ) ripening plant of the Zagarese variety and planted it in Liponti . This clone ripened at the end of August and became widespread throughout northern Apulia . Cuttings came to the other great Primitivo DOC ( *denominazione di origine controllata* or " denomination of controlled origin " ) as part of the dowry of the Countess Sabini of Altamura when she married Don Tommaso Schiavoni @-@ Tafuri of Manduria in the late 19th century .

= = = United States east coast ( 1829 ? 1850 ) = = =

The arrival of Zinfandel in the United States may have been via the Imperial Nursery in Vienna , Austria , which probably obtained the vines during the Habsburg Monarchy 's rule over Croatia , which was expanded when Austria acquired the Dalmatian territories of the former Republic of Venice in 1797 . George Gibbs , a horticulturist on Long Island , received shipments of grapes from Schönbrunn and elsewhere in Europe between 1820 and 1829 . Sullivan suggests that the " Black Zinfandel of Hungary " mentioned by William Robert Prince in *A Treatise on the Vine* ( 1830 ) may have referred to one of Gibbs 's 1829 acquisitions . Webster suggests that the name is a

modification of the Hungarian tzinifándli ( czirifandli ) , which derives from the German Zierfandler , a white grape ( Gruener Sylvaner ) from Austria 's Thermenregion .

Gibbs visited Boston in 1830 , and Samuel Perkins of that city began selling " Zenfendal " soon afterward . In 1830 , Gibbs also supplied Prince with " Black St. Peters " , a similar variety that may have come from England , where many vines have " St. Peters " in their names . Little is known about this vine , except that the Black St. Peters that arrived in California in the 1850s was the same as what became known as Zinfandel by the 1870s .

By 1835 Charles M. Hovey , Boston 's leading nurseryman , was recommending " Zinfindal " as a table grape , and it was soon widely grown in heated greenhouses for the production of table grapes as early as June . The first reference to making wine from " Zinfindal " appears in John Fisk Allen 's Practical Treatise in the Culture and Treatment of the Grape Vine ( 1847 ) . Meanwhile , the fad of hothouse cultivation faded in the 1850s as attention turned to the Concord and other grape varieties that could be grown outdoors in Boston .

= = = California ( 1850 ? 1933 ) = = =

Prince and other nurserymen such as Frederick W. Maconday joined the California Gold Rush in the 1850s , and took Zinfandel with them . Prince 's notebook records that the grape dried " perfectly to Raisin " and that he believed his Zinfandel was the same as the " Black Sonora " he found in California . When the vine known as " Black St. Peters " arrived in California , it was initially regarded as a distinct variety , but by the 1870s it was recognized as the same grape as Zinfandel .

Joseph W. Osborne may have made the first wine from Zinfandel in California . He planted Zinfandel from Maconday at his Oak Knoll vineyard just north of Napa , and his wine was much praised in 1857 . Planting of Zinfandel boomed soon after , and by the end of the 19th century it was the most widespread variety in California .

These Zinfandel old vines are now treasured for the production of premium red wine , but many were ripped up in the 1920s , during the Prohibition years ( 1920 ? 1933 ) , but not for the obvious reason . Even during the Prohibition , home winemaking remained effectively legal , and some vineyards embraced the sale of grapes for making wine at home . While Zinfandel grapes proved popular among home winemakers living near the vineyards , it was vulnerable to rot on the long journey to East Coast markets . The thick @-@ skinned Alicante Bouschet was less susceptible to rot , so this and similar varieties were widely planted for the home winemaking market . 3000 cars ? about 38 @,@ 000 short tons ( 34 @,@ 000 t ) ? of Zinfandel grapes were shipped in 1931 , compared to 6000 cars of Alicante Bouschet .

= = = Rediscovery after Prohibition ( 1933 ? present ) = = =

By 1930 , the wine industry had weakened due to the Great Depression and Prohibition . Many vineyards that survived by supplying the home market were located in California 's Central Valley , a non @-@ optimal environment for growing quality Zinfandel . Thus , the end of Prohibition left a shortage of quality wine grapes , and Zinfandel sank into obscurity as most was blended into undistinguished fortified wines . However , some producers remained interested in making single varietal red wines .

By the middle of the 20th century the origins of California Zinfandel had been forgotten . In 1972 , one British wine writer wrote , " there is a fascinating Californian grape , the zinfandel , said to have come from Hungary , but apparently a cépage now unknown there . " In 1974 and 1981 , American wine writers described it as " a California original , grown nowhere else " and " California 's own red grape " .

In 1972 , Bob Trinchero of the Sutter Home Winery decided to try draining some juice from the vats in order to impart more tannins and color to his Deaver Vineyard Zinfandel . He vinified this juice as a dry wine , and tried to sell it under the name of Oeil de Perdrix , a Swiss wine made by this saignée method . The Bureau of Alcohol , Tobacco and Firearms insisted on an English translation , so he added " White Zinfandel " to the name , and sold 220 cases . At the time , demand for white

wine exceeded the availability of white wine grapes , encouraging other California producers to make " white " wine from red grapes , with minimal skin contact . However , in 1975 , Trinchero 's wine experienced a stuck fermentation , a problem in which the yeast dies off before all the sugar is converted to alcohol . He put the wine aside for two weeks , then tasted it and decided to sell this pinker , sugary wine . Just as Mateus Rosé had become a huge success in Europe after World War II , this medium sweet White Zinfandel became immensely popular . White Zinfandel still accounts for 9 @. @ 9 % of U.S. wine sales by volume ( 6 @. @ 3 % by value ) , six times the sales of red Zinfandel . Most white Zinfandel is made from grapes grown for that purpose in California 's Central Valley .

Wine critics considered white Zinfandel to be insipid and uninteresting in the 1970s and 1980s , although modern white Zinfandels have more fruit and less cloying sweetness . Nevertheless , the success of this blush wine saved many old vines in premium areas , which came into their own at the end of the 20th century as red Zinfandel wines came back into fashion . Although the two wines taste dramatically different , both are made from the same ( red ) grapes , processed in a different way .

= = Relationship to Primitivo , Crljenak Ka?telanski and Tribidrag = =

Zinfandel was long considered " America 's vine and wine " , but when University of California , Davis ( UCD ) professor Austin Goheen visited Italy in 1967 , he noticed how wine made from Primitivo reminded him of Zinfandel . Others also made the connection about that time . Primitivo was brought to California in 1968 , and ampelographers declared it identical to Zinfandel in 1972 . The first wine made from these California vines in 1975 also seemed identical to Zinfandel . In 1975 , PhD student Wade Wolfe showed that the two varieties had identical isozyme fingerprints .

Dr. Lamberti of Bari had suggested to Goheen in 1976 that Primitivo might be the Croatian variety Plavac Mali . By 1982 Goheen had confirmed that they were similar but not identical , probably by isozyme analysis . Some Croatians , however , became convinced that Plavac Mali was the same as Zinfandel , among them Croatian @-@ born winemaker Mike Grgich . In 1991 Grgich and other producers came together as the Zinfandel Advocates and Producers ( ZAP ) with the objectives of promoting the varietal and wine , and supporting scientific research on Zinfandel . With this support , UCD professor Carole Meredith went to Croatia and collected over 150 samples of Plavac Mali throughout Dalmatia , in collaboration with the University of Zagreb .

In 1993 , Meredith used a DNA fingerprinting technique to confirm that Primitivo and Zinfandel are clones of the same variety . Comparative field trials have found that " Primitivo selections were generally superior to those of Zinfandel , having earlier fruit maturity , similar or higher yield , and similar or lower bunch rot susceptibility . " This is consistent with the theory that Primitivo was selected as an early @-@ ripening clone of a Croatian grape .

By 1998 , Meredith 's team realized that Plavac Mali was not Zinfandel but rather that one was the parent of the other . In 2000 they discovered that Primitivo / Zinfandel was one parent of Plavac Mali . The other parent of Plavac Mali was determined by Ivan Peji? and Edi Maleti? ( University of Zagreb ) to be Dobri?i? , an ancient variety from the Adriatic island of ?olta .

This discovery narrowed down the search to the central Dalmatian coastal strip and its offshore islands . Eventually a matching DNA fingerprint was found among the samples . The match came from a vine sampled in 2001 in the vineyard of Ivica Raduni? in Ka?tel Novi . This Crljenak Ka?telanski ( " Ka?tela Red " ) appears to represent Primitivo / Zinfandel in its original home , although some genetic divergence may have occurred since their separation . Meredith now refers to the variety as " ZPC " ? Zinfandel / Primitivo / Crljenak Ka?telanski .

This Croatian vineyard contained just nine Crljenak Ka?telanski vines mixed with thousands of other vines . In 2002 , additional vines known locally as Pribidrag were found in the Dalmatian coastal town of Omi? . Both clones are being propagated in California under the aegis of Ridge Vineyards , although virus infections have delayed their release . The first Croatian ZPC wine was made by Edi Maleti? in 2005 . Meanwhile , plantings of Primitivo have increased in California , where it seems to grow somewhat less vigorously than its sibling . Its wines are reputed to have

more blackberry and spice flavors .

In the 2012 book *Wine Grapes* Masters of wine Jancis Robinson and Julia Harding and Swiss grape geneticist Dr. José Vouillamoz detail the search for Zinfandel 's origins . After years of research and DNA testing of vines from vineyards across the globe , a single 90 @-@ year @-@ old grape vine from the garden of an elderly lady in Split , Croatia , provided the evidence to show that Zinfandel was a Croatian grape that has been known as Tribidrag since at least the 15th century .

= = = Legal issues = = =

Local wine @-@ labeling regulations are slowly catching up with the DNA evidence , a process that has been slowed by trade disputes . The European Union recognized Zinfandel as a synonym for Primitivo in January 1999 , meaning that Italian Primitivos can be labelled as Zinfandel in the United States and any other country that recognises EU labelling laws . Italian winemakers have taken advantage of these rules and shipped Primitivo wines to the United States labelled as Zinfandels , with the approval of the Alcohol and Tobacco Tax and Trade Bureau ( TTB ) .

As of December 2007 , the TTB lists both Zinfandel and Primitivo as approved grape varieties for American wines , but they are not listed as synonyms . U.S. producers , therefore , must label a wine according to whether it is Zinfandel or Primitivo . The Bureau of Alcohol , Tobacco , Firearms and Explosives ( ATF ) proposed in 2002 that they be recognised as synonyms , but no decision on this proposal ( RIN 1513 ? AA32 , formerly RIN 1512 @-@ AC65 ) has been made .

= = Distribution and wines = =

= = = United States = = =

Zinfandel is grown across the continental United States , although California grows the largest proportion . U.S. producers make wine in styles that range from late harvest dessert wines , rosés ( White Zinfandel ) and Beaujolais @-@ style light reds to big hearty reds and fortified wine in the style of port . The quality and character of American Zinfandel wines largely depend on the climate , location , and age of the vineyard in which they are grown , as well as the technology employed by the winemaker .

Historically , California Zinfandel vines were planted as a field blend interspersed with Durif ( Petite Sirah ) , Carignan , Grenache , Mourvèdre , Mission and Muscat . While most vineyards are now fully segregated , California winemakers continue to use other grapes ( particularly Petite Sirah ) in their Zinfandel wines . Zinfandel is grown on approximately 11 % of California 's vineyard land area . Around 400 @,@ 000 short tons ( 350 @,@ 000 tonnes ) are crushed each year , depending on the harvest , placing Zinfandel third behind Chardonnay and Cabernet Sauvignon and just ahead of Merlot .

= = = = California regions = = = =

In California , 20 % of the Zinfandel @-@ growing counties hold 80 % of the Zinfandel growing area ; however , major producing areas such as San Joaquin County , Stanislaus County , and Madera County produce Zinfandel primarily for blends or jug wine .

Certain California regions are regarded as " exceptional " for Zinfandel , each with identifiable flavor characteristics :

Amador has a reputation for big , full @-@ bodied Zinfandel . These extra @-@ ripe wines have been called jammy , briary , and brambly , having aromas of sweet berries .

Although the Santa Cruz Mountains AVA in Santa Clara Valley produces Zinfandel from just 9 acres ( 3 @.@ 6 ha ) , the Zinfandel from that region is known for its complexity and depth .

Sonoma county has a Zinfandel @-@ producing land area second only to that of San Joaquin

County . The county contains the warm Dry Creek Valley AVA , known for its juicy Zinfandel with bright fruit , balanced acidity and notes of blackberry , anise and pepper . Dry Creek Valley produces Zinfandel in a variety of styles ranging from the high @-@ alcohol Amador style to balanced , spicy wines .

San Luis Obispo , particularly the Paso Robles AVA with its hot days and cool maritime evenings , produces Zinfandel known for being soft and round .

While the Napa Valley AVA is known primarily for its Cabernet Sauvignon , Merlot , and Syrah , Napa also produces Zinfandel wines described as plummy and intense , tasting of red berry fruits with cedar and vanilla . Zinfandel in Napa tends to be made in a claret style like red Bordeaux .

The Russian River Valley generally produces well during warm vintages . Otherwise , the grapes do not fully ripen , leaving the wines with excessive acidity . The area has mostly " old vine " Zinfandel , characterized as spicy and somewhat lower in alcohol than Zinfandel from other regions .

Mendocino County Zinfandel wines have been considered high quality , but they are less known because they are not heavily marketed .

Lodi has some of the oldest Zinfandel vines in California . While often used for White Zinfandel production , in the red style , Lodi Zinfandels have a reputation for being juicy and approachable .

= = = Italy = = =

Most Primitivo is grown in Apulia , a coastal region known as the " heel " of Italy , and it is estimated to be the country 's 12th most widely planted grape variety . The main three DOC areas are Primitivo di Manduria , Gioia del Colle Primitivo ( Riserva ) and Falerno del Massico Primitivo ( Riserva o Vecchio ) . The Manduria DOC covers still red wine as well as sweet ( Dolce Naturale ) and fortified ( Liquoroso Dolce Naturale , Liquoroso Secco ) wine . Falerno requires a minimum of 85 % Primitivo ; the others are 100 % Primitivo . Gioia del Colle Rosso and Rosato contain 50 @-@ 60 % Primitivo , and Cilento Rosso / Rosato contains around 15 % .

Historically , the grape was fermented and shipped north to Tuscany and Piedmont , where it was used as a blending grape to enhance the body of thin red wines produced in those areas . When the link between Primitivo and Zinfandel began to emerge , plantings in the region and production of non @-@ blended varietal increased . Today most Italian Primitivo is made as a rustic , highly alcoholic red wine with up to 16 % alcohol by volume ( ABV ) . Some Italian winemakers age the wines in new American oak to imitate American @-@ style Zinfandel .

= = = Other locations = = =

The Croatian form Crljenak Ka?telanski was not bottled in Croatia as a varietal in its own right before the link to Zinfandel was revealed . UCD has since sent clones of both Zinfandel and Primitivo to Professor Maleti? in Croatia , which he planted on the island of Hvar . He made his first ZPC wines in Croatia in 2005 . There is high demand for red grapes in the country , and the government has been supportive of ongoing research . Figures from the department of viticulture and enology at the University of Zagreb claim that from only 22 vines of Crljenak Ka?telanski in Croatia in 2001 , there were about 2 @, @ 000 vines in 2008 .

Old vine Zinfandel plantings dating from the 1930s have been found in Baja California , Mexico . There are also small Zinfandel plantings in Western Australia , Mudgee in New South Wales and the McLaren Vale area of South Australia . South Africa has a small production of Zinfandel , including one estate rated among the country 's Zinfandel producers and winner of an international prize .

= = Viticulture and winemaking = =

Zinfandel vines are quite vigorous and grow best in climates that are warm but not too hot , because grapes may shrivel in hot weather . Zinfandel 's thin @-@ skinned grapes grow in large , tight bunches that are sometimes prone to bunch rot . The fruit ripen fairly early and produce juice with high sugar content . If weather conditions permit , the grapes may be late @-@ harvested to

make dessert wine . Zinfandel is often praised for its ability to reflect both its terroir and its winemaker 's style and skill .

The grapes exhibit an uneven pattern of ripening : a single bunch may contain both raisin @-@ like , over @-@ ripe grapes and green , unripened grapes . Some winemakers choose to vinify the bunches with these varying levels of ripeness , while others hand @-@ harvest the bunches , even by single berries , in multiple passes through the vineyards over several weeks . This extensively laborious practice is one component in the high cost of some Zinfandels .

Red Zinfandel wines have been criticized for being too " hot " ( too alcoholic ) , although modern winemaking techniques have helped make them more approachable . On the other hand , Zinfandel producers such as Joel Peterson of Ravenswood believe that alcohol @-@ removing technologies , such as reverse osmosis and spinning cones , remove a sense of terroir from the wine . If a wine has the tannins and other components to balance 15 % alcohol , Peterson argues , it should be accepted on its own terms .

Factors that affect the wine 's flavors include length of fermentation , length of the maceration period with skin contact , the level of oak aging , and the degrees Brix of the harvested grapes . White Zinfandel is normally harvested early at 20 ° Bx when the grapes have yet to develop much varietal character , though some examples can develop hints of tobacco and apple skin . At 23 ° Bx ( the degree that most red wine is considered " ripe " ) , strawberry flavors develop . Cherry flavors appear at 24 ° Bx followed by blackberry notes at 25 ° Bx .

= = Synonyms = =

Crljenak Ka?telanski , Gioia Del Colle , Locale , Morellone , Plavac Veliki , Primiticcio , Primitivo , Primitivo , Primitivo Di Gioia , Primitivo Nero , Uva Della Pergola , Uva Di Corato , Zin ( informal ) , ZPC , Black St. Peters , Zenfendal , Zinfandel , Zinfindal , Taranto , Zeinfandall , Zinfardell , Zinfindel , Zinfandal .