

## Vintage Report 2008-2009



National Association of Agricultural Oenologists Engineers

### **Introduction**

The National Union/Association of Agricultural Engineers and Oenologists has prepared the 2009 Vintage Report. To this effect, information from May, 2008 has been gathered to consider climatic antecedents and their effect in the grape's phenological stages development from before the budding to the end of the 2009 season harvest.

This report includes the climatic and phenological information from winter 2008 to autumn 2009. It also includes temperature and rainfall comparative tables of several seasons in great part of the analyzed areas.

To date most wines are finished, some reds have not finished their malolactic fermentation, but this vintage's most relevant aspects can be analyzed.

### **GENERAL CONSIDERATIONS**

This season was influenced by La Niña bringing cold ocean currents and low temperatures to our coasts, which results in a low rain level and rather high environmental temperatures that delayed the autumn start.

The 2008 winter was quite mild, with temperatures very close to last years' average and few frosts in specific areas. Springtime came with average high temperatures, although similar to those of a regular year and, unlike last year, there were no frosts that could affect production in vulnerable areas. On the contrary, warm temperatures and the lack of rainfall increased the 2009 production in most part of the winemaking area.

In general, in most winemaking areas, a greater amount of leaf buds were kept for precaution and due to a lesser amount of fruit produced last year. This and the good climatic conditions might have been the cause of greater production.

Springtime and summer showed a total lack of rainfall but, unlike the previous season, the drought effect was not significant in most part of the country, except in Cauquenes and the south of Maule where water lacked from December to February.

The whites harvest began within the estimated dates, with healthy grapes but heavier and bigger bunches than usual. An increase in most white varieties is mentioned, especially for Sauvignon Blanc and some Chardonnay areas, even so, good health and quality in white wines obtained has been reported.

Reds harvest began later than the previous season, expecting greater ripeness in tannins, especially due to the lack of autumn rainfall. The first production estimates showed 10-15% more harvest, with lighter bunches than those of white varieties and smaller berries mainly in Merlot and Cabernet Sauvignon.

A dehydration effect in Merlot bunches was again seen in the 2009 harvest, but in a much lower degree than in the previous season, although it is also mentioned for Cabernet Sauvignon. This is still an issue requiring a serious technical analysis. Hydric restrictions, either caused by drought in some areas or by stressing handlings of the vineyard, could have had an influence or increased the risk of having this problem. Another possible cause could be the impact of greater radiation in the berries which, although there is no record of all areas, is evident due to a lack of cloudy days compared to other seasons.



## **General Conditions**

This report includes the Cerrillos de Amaya location.

In general, the yields were the expected, but there was a 10% production increase in Sauvignon Blanc and 15% in Viognier and Merlot.

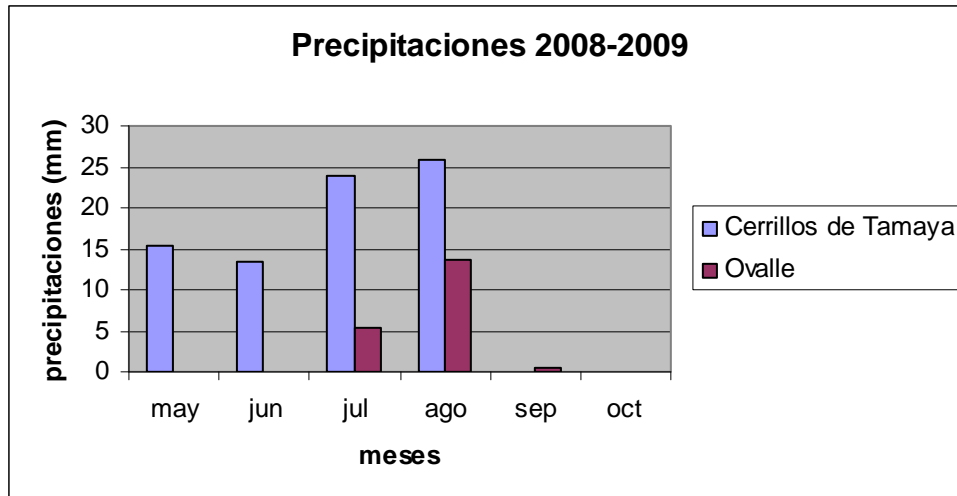
Harvest for Sauvignon Blanc began the second week in February and ended the first two weeks in March. For Chardonnay it began the first two weeks in March and for Viognier the first two weeks in April. The Merlot red variety's harvest began the second two weeks in March and continued the first two weeks in April.

Winter showed no frosts and rainfall was within the regular range, 70 and 100mm. Springtime was quite hot and the fruit ripeness was early; no rainfall or frosts were registered. It is considered a good year for the Sauvignon Blanc and white varieties in general. Reds present good ripeness and balance.

## **Climatic Characteristics**

### **Rainfall**

In Cerrillos de Tamaya there were 78,6mm of rainfall registered, concentrated in May (15,4mm), June (13,4mm), July (24mm) and August (26mm) (figure 2). In a regular year, rainfall in this location reaches 123mm, therefore, there was a 35% deficit this season, but still considered within normal in the area, unlike the previous year in which there was a 75% deficit.



**Figure 2: 2008-2009 rainfall. Limari Valley**

This rainfall came with average temperatures of 12 and 20°C, no frosts were recorded in the whole season.

Average lowest temperatures varied between 7°C and 8,6°C during winter in the north area, e.i., around 2°C higher than the same time last year (figure 3). This caused a 10-15 days advanced harvest with respect to last year and a general advance in phenological stages.

However, analyzing 2004 springtime data, there is no clear temperature rise trend in time, although definite answers require surveys including a greater number of seasons.

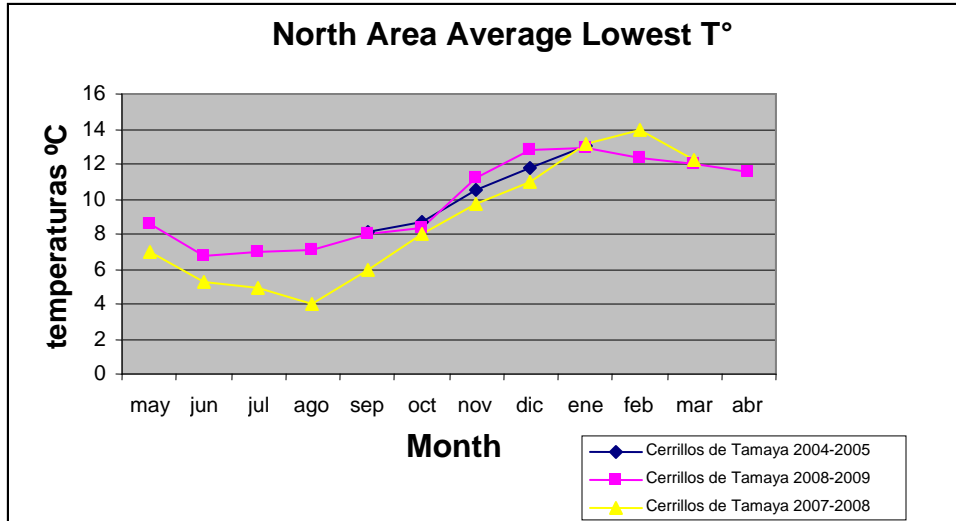


Figure 3 Average lowest Temperatures, North area.

Average highest temperatures during the sprouting period are almost 2°C higher than the previous season and very similar to those of the year 2004 (figure 4). These differences, although slight, may have had an effect in the last years' sprouting dates, which this year were registered before those of 2008.

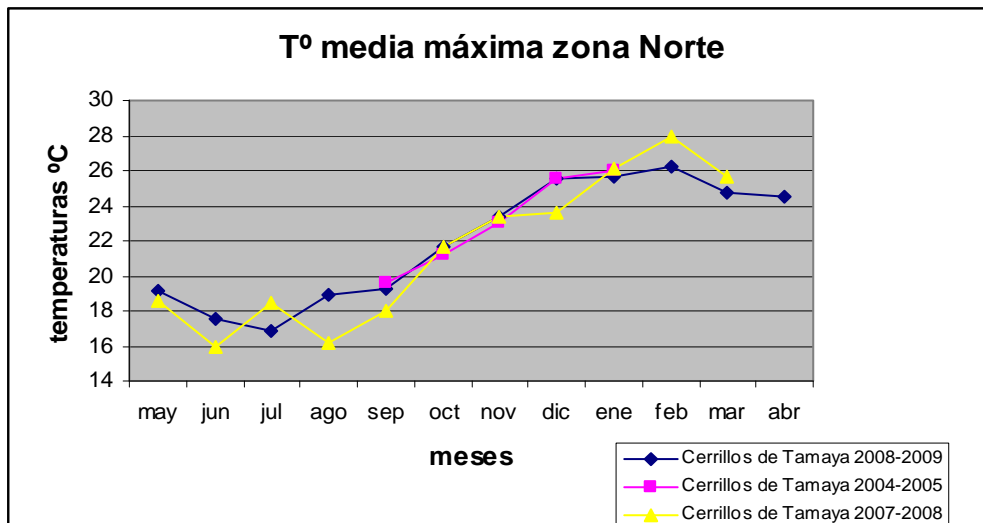


Figure 4 Average highest temperatures, North Area.

During October there is a balance in lowest as well as average highest temperatures. This allowed a good vegetative growth and eventual normality in Flowering and Ripening.

The annual degrees-day for the Ovalle area was 2140, over 300 more than the previous season (1799,6), which is considered normal. However, in the same area the annual temperatures were approximately 2°C higher than the normal expected.

All antecedents gathered for this area allow justifying the early harvest date and phenological periods with respect to the previous season.

### **Wines characteristics**

Sauvignon Blancs are fresh and elegant with very good fruit definition, good varietal tipicity, citric notes, white fruit and subtle exotic notes. The natural acidity gives strength and fruit in mouth. A cold springtime and grapes protected by well handled foliage, reached very interesting balances between alcohol, acidity and pH.

The Chardonnay presents great varietal tipicity with white flowers, apples, white peaches, dry fruits and honey notes. Fresh and subtle citric notes. A complementary diversity of the different lots makes this one a great year for blendings.

The Viognier variety had some problems. The quality and aromatic intensity were fair, however, just like the other varieties, it had no problems during fermentation. The wines presented floral and fruit notes, like peach and apricot.

Some red varieties had a 6 to 10 days delay. Others, like Cabernet Sauvignon, were harvested in historic dates. In spite of that, this variety wines had a complicated season. Some of them too fruity, with some vegetal tones, those with higher ripeness have cassis notes with a varietal side very authentic of the variety. Very firm and tight tannins, high tannic structure wines. There are some rather drying plots and others that will require longer to polymerize and reach integration. Apart from that, it was hard for the skin to remain swollen and healthy waiting for the phenolic

ripeness. Some of the plots, however, show a greater potential to that obtained in previous years.

The Syrah this year is characterized by a great complexity of floral aromas with exuberant ripe fruit, meat and liquorice tones. Much volume and high intensity tannic load. Great concentration and much diversity in styles, with much power and elegance.

A very good year for cold areas Carmenere. Wines are expressive and ripe. Much fruit (ripe red pepper, plums, blackberries, cranberries) expressed in different intensity. Great volume and silk.

# Casablanca Valley



Figure 5. Casablanca Valley Locations Map.

## General conditions

This season the harvest dates were similar to those in 2008. The sauvignon Blanc was harvested from the beginning of March, others by the end of the same month and the Chardonnay was harvested by the beginning of April.

The grapes health was good, with a lower incidence of botrytis, less than 1% in Sauvignon Blanc.

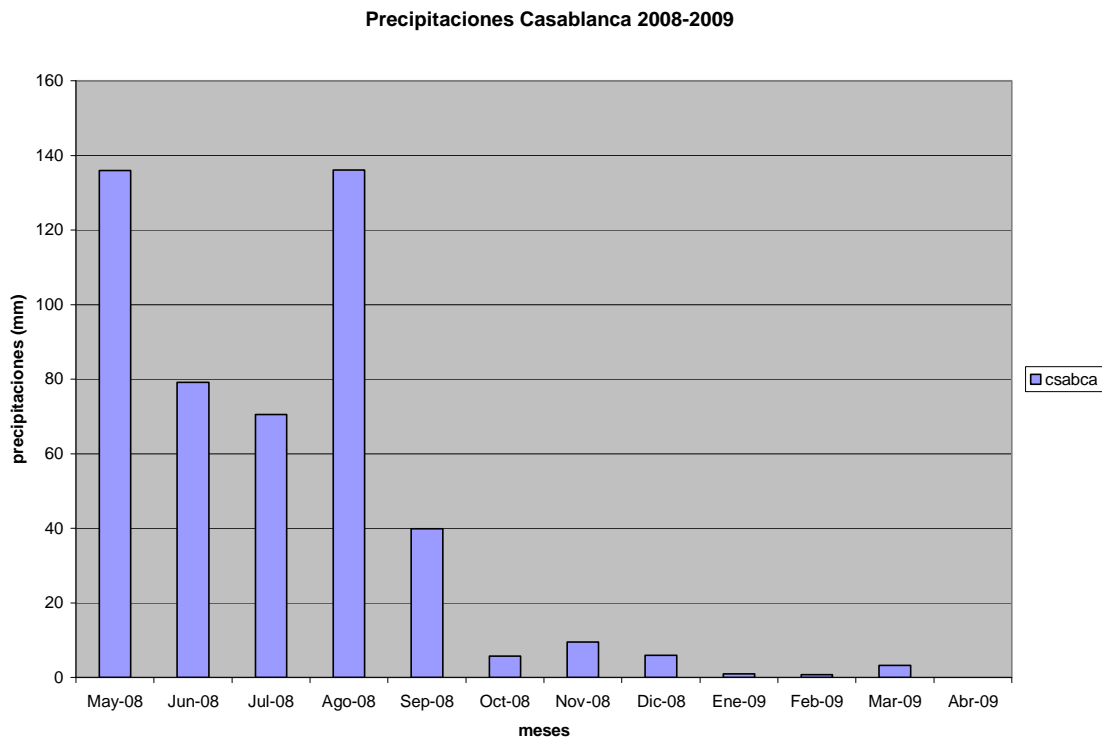
Unlike the previous year, there was an increase in Sauvignon Blanc and Chardonnay production. It is worth noting these yields are based in 2008 which had a production decrease of nearly 15%. Compared to a normal year, this increase in production would be 15-20% only, taking the whole valley into account. It is also worth noting, however, that in some cases even 60% more in production was obtained, but in other areas yields were within the expected. This depended on the fast reaction to the bunches weight increase which consisted mainly in on time disbudding works, which were more complicated in some

vineyards due to the slow and late ripening stage in white varieties.

## Climatic characteristics

### Rainfall

The hydric conditions in the Casablanca Valley improved very much with respect to the previous year, from a rainfall deficit of 65% to a regular year, with a rainfall average of 487mm, taking into account different areas in the valley, which is important to note for this season (figure 6).



**Figure 6. Casablanca Valley, 2008-2009 rainfall.**

The presence of a good hydric regime made the incidence of dehydration go down in most part of the valley and in places where it was found it is thought it was mainly due to solar radiation, not to a lack of water.

These rains were basically concentrated in winter, so springtime was rather dry. This contributed to the area's grapes health, which had a very healthy vintage. There was no rainfall record during the harvest period either.

## Temperatures

The current season showed much milder temperatures than the previous one, proof of which is there was only one springtime frost during October, which did not affect the sprouting in process. There were no temperatures below zero (figure 7), the lowest temperatures were recorded in winter (June, July, August) and they varied between 2 and 3,6°C, regular for the area.

During springtime there were no frosts records, except for two alarms that were effectively controlled.

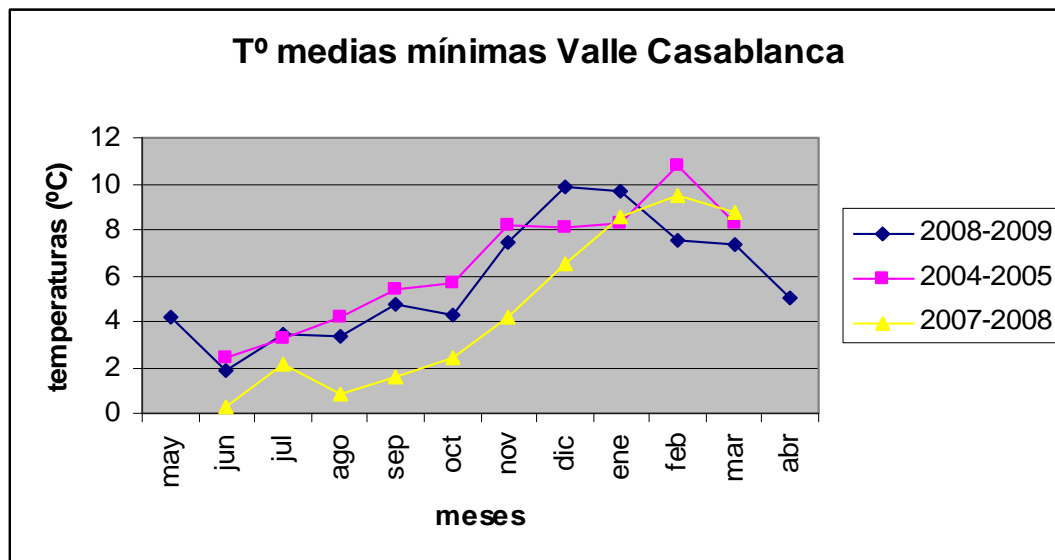


Figure 7. Casablanca Valley Interseasons average lowest temperatures.

It is worth noting that there is no clear tendency to a lowest temperatures rise in this area due to climatic changes, since higher temperatures during the 2004-2005 periods can be seen in figure 10.

Compared to the previous season, average highest temperatures were lower all season long. This resulted in a long harvest waiting for the proper ripeness in each variety. However, due to a lower thermal fluctuation between the lowest and average highest temperatures the wines' acidity was lower, affecting their freshness and aromas concentration. However, this production has other attributes worth mentioning (figure 8).

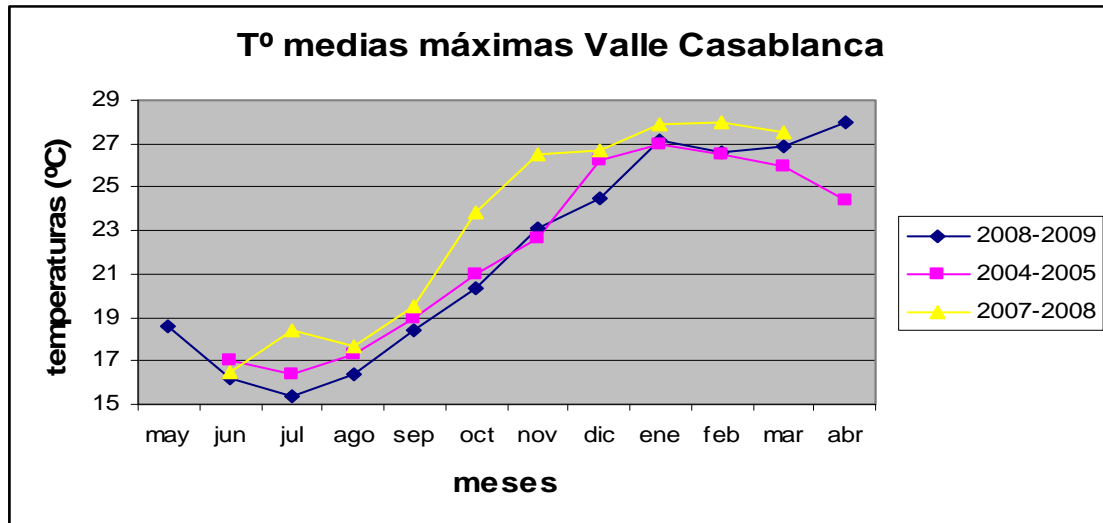


Figure 8. Casablanca Valley, average highest temperatures.

Degrees-day were at first lower than those in previous seasons during the whole cycle, except in December. The decrease in this rate meant small delays in the harvest date, with respect to the previous season, in Sauvignon Blanc as well as Chardonnay (figure 9).

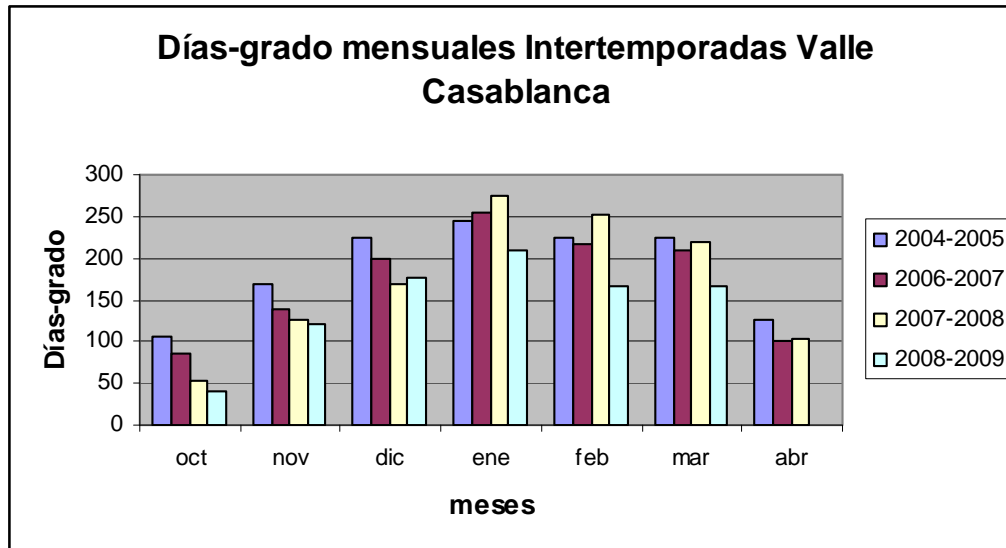


Figure 9. Interseason monthly degrees-day. Casablanca Valley.

## Wines characteristics

The Sauvignon Blanc shows normal concentration and aromas quality. These are not exceptional surely due to production excess, with very good acidity levels accompanied, though, with higher pH than the previous season.

In qualitative terms, the Chardonnay wines quality outstood among whites compared to previous years, since it made use of the good conditions to ripe and express its character. In cold areas these conditions allowed to leave out some spicy character and to have very fruity and fresh wines with fair intensity aromas, harmonic and delicious in mouth. Acidity was a little lower than normal and pH was somewhat higher than the previous season, but within normal ranges. Fermentations were also normal.

Dehydration in Merlot was no big deal this season, it was only registered in some isolated cases. Also, there were some overflow problems in this variety, which meant losses of around 6%.

The Pinot Noir had a yield 8 to 10% over the estimated. In general, the grapes good health allowed obtaining wines of very good color, good quality tannins and getting a better fermentation development than in previous years.

The Syrah variety presented healthy grapes and had no production problems. Also, it was harvested waiting for its grapes optimum ripeness, which was totally achieved, so the wines resulted in great color, good intensity and aromatic quality with a concentration of black fruits and berries in mouth greater than other years.

## **ACONCAGUA VALLEY**

### **General and climatic conditions**

Like the rest of the country, the Aconcagua Valley Interior had a hot and dry summer, condition that extended through March and April due to many peaks of highest temperatures. However, the season's thermal sum was very moderate with an average thermal accumulation during the 2008-2009 season of 1,622 degrees-day, 71 degrees-day lower than the historic average (1,693 degrees-day).

Since the temperature peaks were quite delimited in time, the average temperatures were lower than those registered in the previous season. Thus March registered an average of 18.4°C, lower than the 18.8°C registered in the same month the previous season.

Regarding Aconcagua Coast, the yields were very close to the projections.

The thermal sum in the coldest area was 1,199 days-degree and 1,322 in the warmer one. This confirms its cold Valley condition, excellent for quality Sauvignon Blanc, Chardonnay and Pinot Noir production. Regarding temperatures, there was also a moderate condition, with a thermal accumulation of only 1,468 days-degree. This confirms its characteristic as producing area of elegant, fresh reds of good acidity above the power due to being an area colder than Panquehue, being closer to the coast.

Many thinnings were done this season to achieve yields adjusted to projections finally getting a total production only 7% above the projected (whites 9% and reds 8%). Regarding the previous season, the total increase was only 10% (12%whites and 8% reds), which was not translated into difficulty to reach good ripe. Given the conditions of enough temperatures and lack of rain, the overall quality was good, with excellent whites from Aconcagua Coast.

## **Wines characteristics**

Regarding the quality of the wines, this year the Merlot had excellent quality since it was harvested by mid March, skipping the heat registered during that month. This allowed a good ripe in berries which were not affected by the temperature peaks. Wines have very good color and fruit intensity and are full bodied. They do not show collapse or overripe notes; no negative effect due to heat excess is seen.

Cabernet Sauvignon shows a little higher alcoholic degree (especially 2007 and 2008). In general, in this season quality depended very much on the wine-growing handlings (leaf-removal, thinnings, hydric stress), for which the registered concentrations and intensities in the 2007 and 2008 seasons were lower, in spite of the thinnings in the vineyard and the bleeding in the winery.

Regarding the Syrah, it was a productive year of big bunches and high weights in grapes, which made necessary to make thinnings to regulate load. In some cases, shoulders were hurred in addition and "descole" was realized to lighten clusters, while during winemaking bleedings were done to increase concentration. This resulted in wines with good concentration and tipicity, although rather tougher tannins that will require longer aging to soften.

Regarding the Petit Verdot and Cabernet Franc, they are very good thanks to moderate yields and the good ripe reached due to high temperatures. Bunches well protected and with proper fruit unloading gave aromatic and intense wines with good quality tannins. Wines are elegant with a little less concentration than those of previous seasons, but with very good fruit, tipicity and color.

Regarding the Carmenere, due to high temperatures it was a year of little pirazina and, on the other hand, ripe and round wines were gotten, with good fruit intensity and tipicity. It was a good year for Carmenere.

The Sauvignon Blanc quality can be qualified as excellent, with great intensity, full bodied, lively and fresh.

The Chardonnay shows a distinctive tipicity, much freshness and fruit intensity, a mineral touch and a certain austerity in mouth.

Although the Pinot Noir is a delicate variety that requires time to clean, express its primary fruit and evaluate its quality, its shows its power, with very good red fruits tipicity, soil and minerals.

## **SAN ANTONIO VALLEY**

### **General conditions**

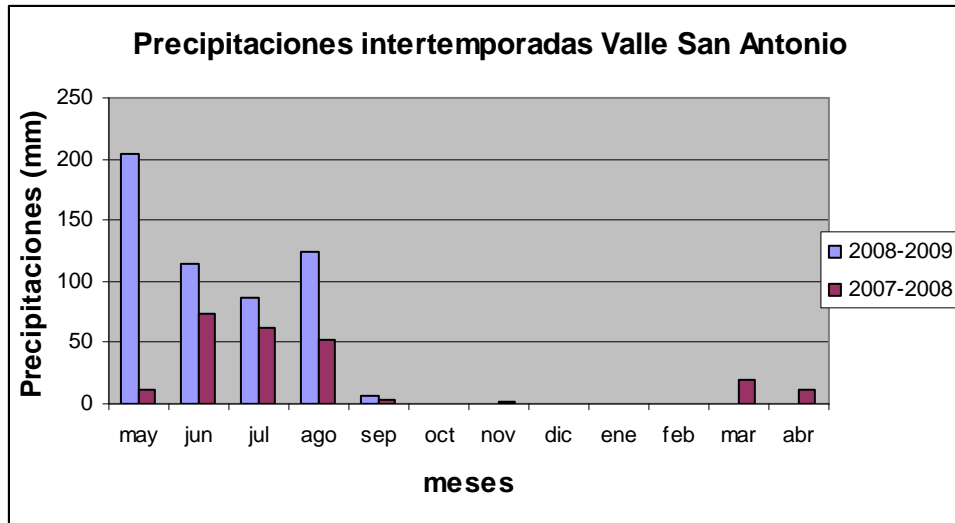
Regular springtime regarding temperatures and cloudiness. Summer was dry and hot, condition remaining during autumn although showing more cloudy days. Phenological periods were 7 to 10 days early in all their stages.

White varieties production, Sauvignon Blanc as well as Chardonnay, remained within the estimated mainly due to a good disbudding handling in due time. In spite of that, there were areas that did register between 10 to 25% increase in production, with bigger and heavier berries.

### **Climatic conditions**

#### **Rainfall**

Compared to the previous season, winter had a hydric surplus in the Leyda area. In a normal year, rainfall varies between 400 to 500mm. This season 530mm average was registered, equivalent to a normal year or a very low surplus level, which didn't affect significantly the vintage's normal process (figure 10).



**Figure 10. Interseason Rainfall. San Antonio Valley.**

Rains were concentrated in winter and there was no rainfall in springtime or during harvest, therefore health in the area was exceptional.

### **Temperatures**

Like the overall trend this season in the country's Fifth Region's winemaking area, temperatures were milder than in previous years, showing the average lowest temperature in June with 5,9°C, unlike last year's 0,3°C in August (figure 11).

This, and the great amount of cloudiness in the area during the season, which could have clearly affected the average lowest, caused early phenological stages in some of their periods, such as sprouting.

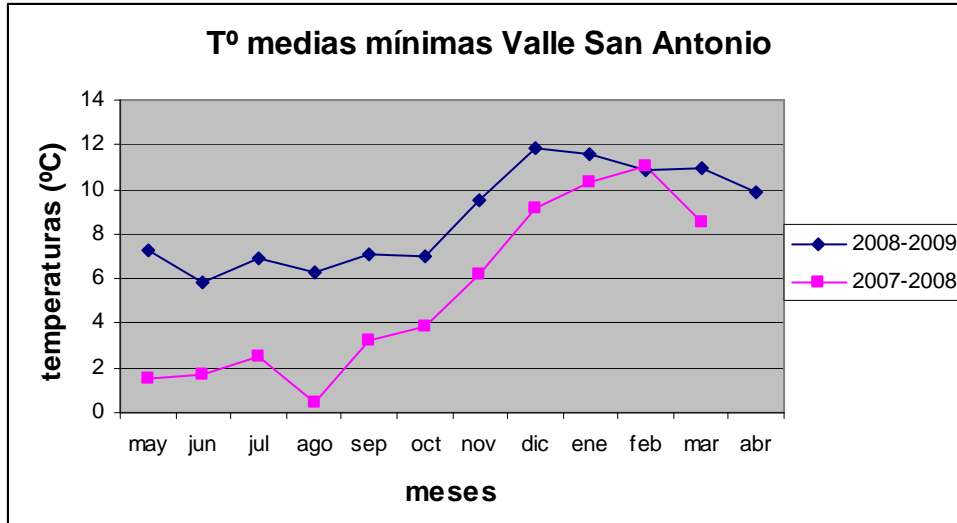


Figure 11. Interseasons average lowest temperatures. San Antonio Valley.

There were no relevant frosts, only one in May 2008 that caused no effect.

Regarding winter average highest temperatures, there were similar values between the current and the previous seasons. The difference begins in November to the end of the season, showing temperatures below the area's average, that is, close to 23-24°C for the summer months, instead of that of 27°C in the previous season (figure 12).

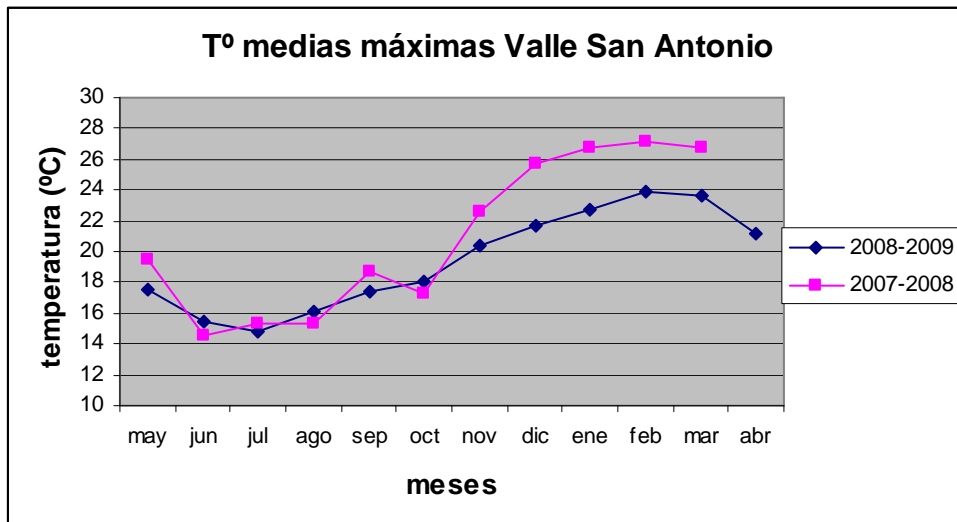


Figure 12. Interseasons average highest temperatures. San Antonio Valley.

High cloudiness may have also affected the average highest temperatures. The delay of the ripe period allowed harvesting most varieties in their optimum moment, since autumn temperatures did not affect the harvest dates determination. There was no dehydration problem in the grape.

### **Wines characteristics**

The wines produced showed very good concentration and a good ripeness level in the grapes. There is good balance between acidity and the pH seen in the wines. These characteristics are due to a slow ripeness of the grape and the good harvest conditions.

The Pinot Noir registered 5% increase in production, mainly for a greater weight of bunch, but with good acidity and phenological ripeness. It was also a good year for Syrah, since it could wait for the optimum harvest moment, registered around May 15<sup>th</sup>.

Regarding health, there was some botrytis and Oidium in Sauvignon Blanc. They were both effectively controlled on time, so they did not affect production. The Chardonnay presented a very healthy grape.

## MAIPO VALLEY



Figure 13. Maipú Valley Locations Map.

## CENTRAL MAIPO

### General conditions

In some areas the reds harvest began approximately two weeks later than a normal year. The yields in red varieties are above the estimated in all varieties. In spite of that, the wines quality shows a strong tipicity of the place.

Some dehydration problems were noted in Merlot, which were lower than those of the last season (around 5%). Some dehydration was also found in Cabernet Sauvignon. However, this was mainly due to sun strikes damages rather than physiological dehydration.

The grapes' health was in optimum conditions, *Brevipalpus chilensis* was only seen in some specific fields areas, delaying ripeness in some areas although not being a major yield problem. Botrytis affected some plots, there was around 10% damage mainly in Syrah.

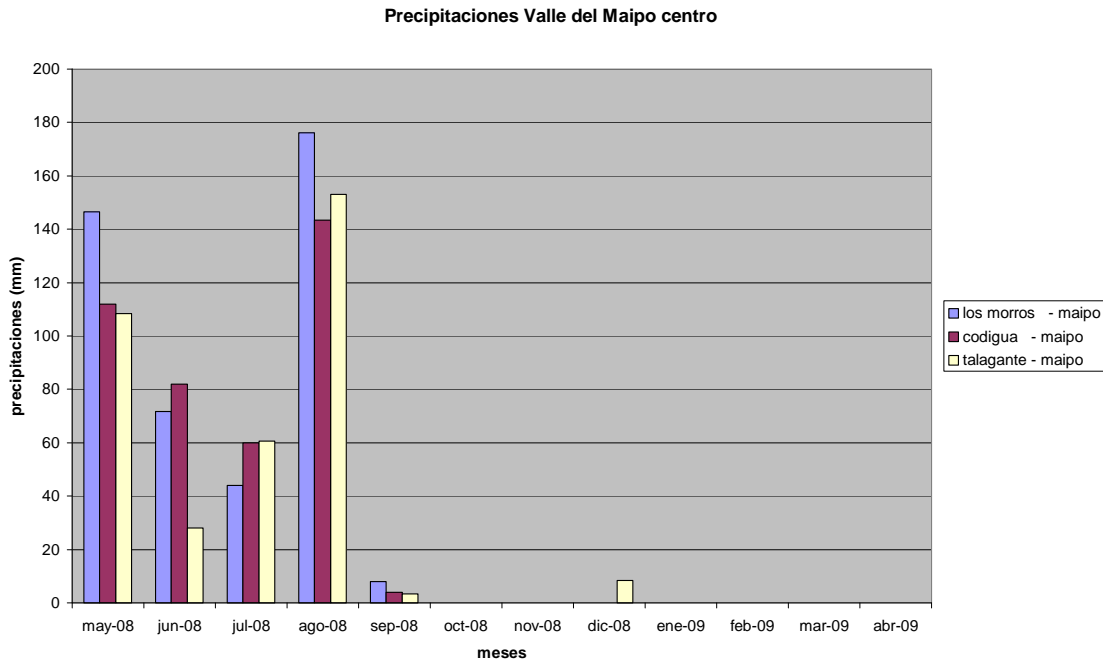
## Climatic conditions

### Rainfall

Unlike the previous year, there was no rain deficit during this season and some areas even surpassed normal years. This season there were 361mm in Talagante and Codigua was close to 400mm. Los Morros registered one of the highest rain levels during the season, close to 450mm, approximately 25% surplus with respect to a normal year in the area (figure 14).

Thanks to this rain level extra irrigations were not necessary and the vines' health was very good. Also, there was no rain during vintage which made the harvests possible when desired.

In spite of this rainfall level, there was some dehydration cases in varieties like Merlot and Cabernet Sauvignon, but in both cases a very low level and considerably lower than the previous season.

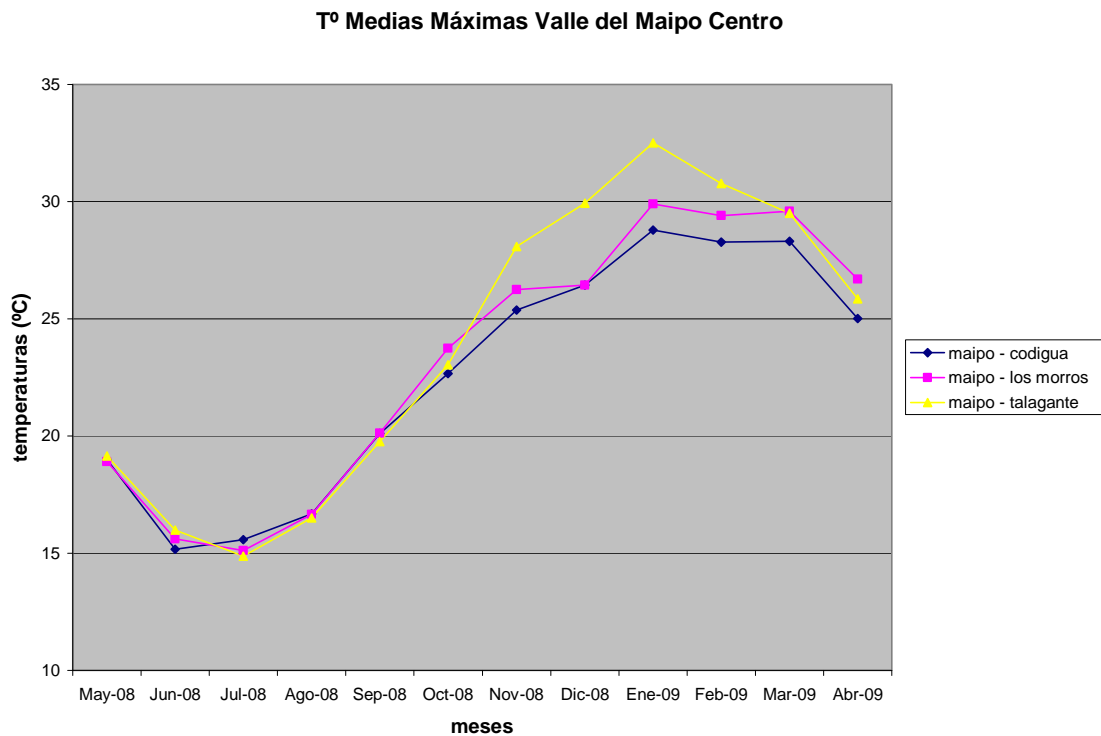


**Figure 14. Season 2008-2009 rainfall. Central Maipo.**

## Temperatures

Winter average highest temperatures were lower than last year. The delay in the phenological stages development remained the whole season. Flowering and ripening were equally delayed, this was seen in all Central Maipo's areas.

Talagante, Codigua and Los Morros showed a very similar average highest temperatures pattern. However, Talagante area showed approximately 2°C above other areas average, reaching 32.5°C during January. (Figure 15)



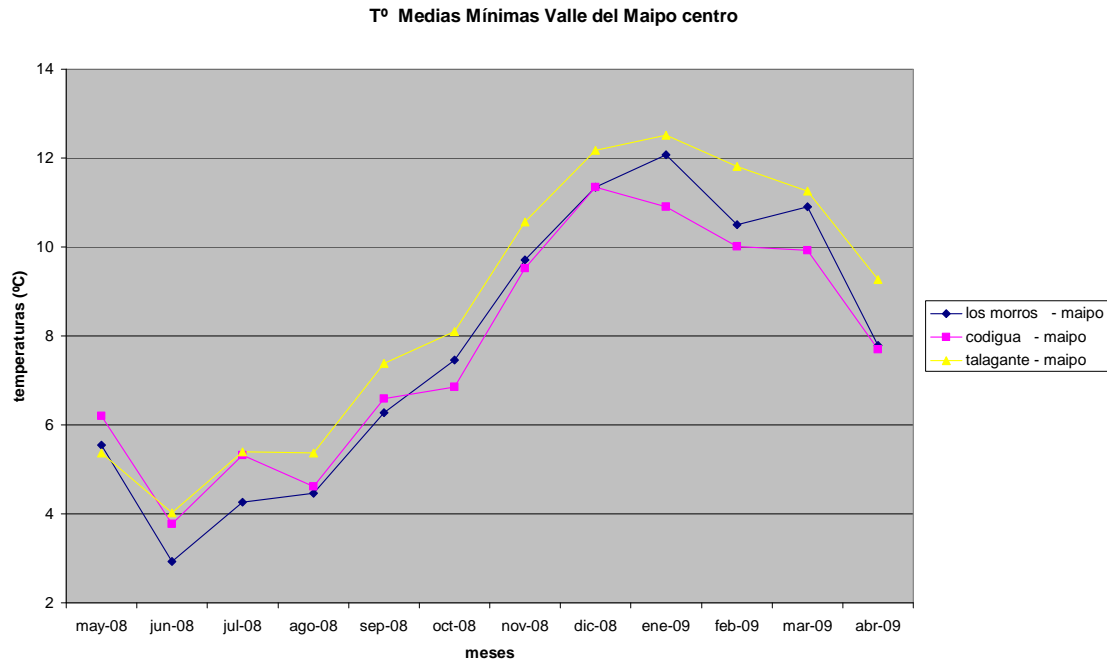
**Figure 15 Average highest temperatures. Season 2008-2009. Central Maipo**

At the same time, average lowest temperatures in these locations had different behaviors, Talagante kept average lowest temperatures around 1°C above the other locations, but this time all season long.

Winter months June and July showed more extreme lowest temperatures (as it happened in other valleys, other years).

Average lowest temperatures were higher this season. The lowest temperature registered was 3.6°C in June in Los Morros, in contrast to the approximate -0.6°C registered in Isla de Maipo the previous season. No frosts were registered in the area during this season.

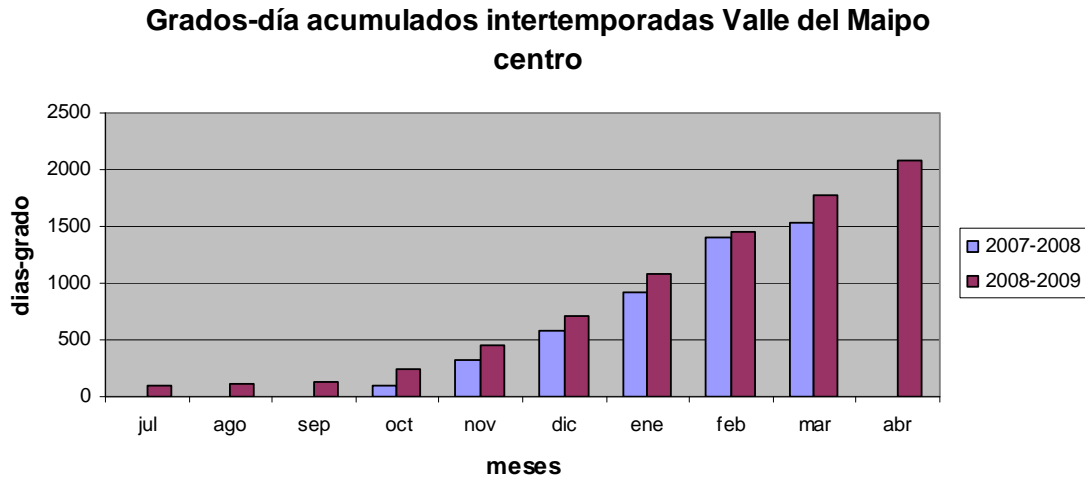
These little extreme temperatures facts helped the grapes ideal ripeness and allowed harvesting 10 to 12 days earlier than the previous season.



**Figure 16 Average lowest temperatures. Season 2008-2009. Central Maipo.**

Days- degree accumulation in the area was relatively similar to that in the previous season, except in the late summer and early autumn, which showed very high and absolutely unusual temperatures for the central area. This, in some cases, caused over-ripeness and a decrease in acidity in locations where the harvest was waited for too long.

This season, the days-degree accumulation until April reached 2076, whereas the previous season had a 1551 reading until March (Figure 17).



**Figure 17. Accumulated degrees- day. Interseasons, Central Maipo.**

## **Wines characteristics**

In some areas the reds harvest started approximately two weeks later than a normal year.

The red varieties yields were above estimates in all varieties. In spite of that, the quality obtained shows a strong tipicity of the place, much red fruit, freshness and species. In general, this is a year with higher concentration in wines. Therefore, varietal characteristics and a good fruit character outstand.

Carmenere was one of the varieties which productions were within the expected, with very good ripeness, fruit notes and an even earlier ripeness than other wines. Wines are fresh, vibrant, fruity and of spectacular color.

Regarding grapes quality, the Syrah has good perspectives. It ripped a little slower than usual so it was one the last varieties to be harvested. The resulting wines are very good, with very good color and very fruity, elegant and complex. They have very good quality and aroma intensity and an excellent quality of tannins, which could mean a surprise in wines of this variety destined to reserve.

## **High Maipo**

### **General conditions**

This area, as usual, presented more extreme conditions than Central Maipo, with lower rainfall levels, lower temperatures in winter and higher temperatures in summer.

There were also winter and springtime frosts, but none seemed to affect the different phenological stages and no clear damage signs were seen. Some frosts in mid September also occurred, which did not affect the vineyards sprouting either.

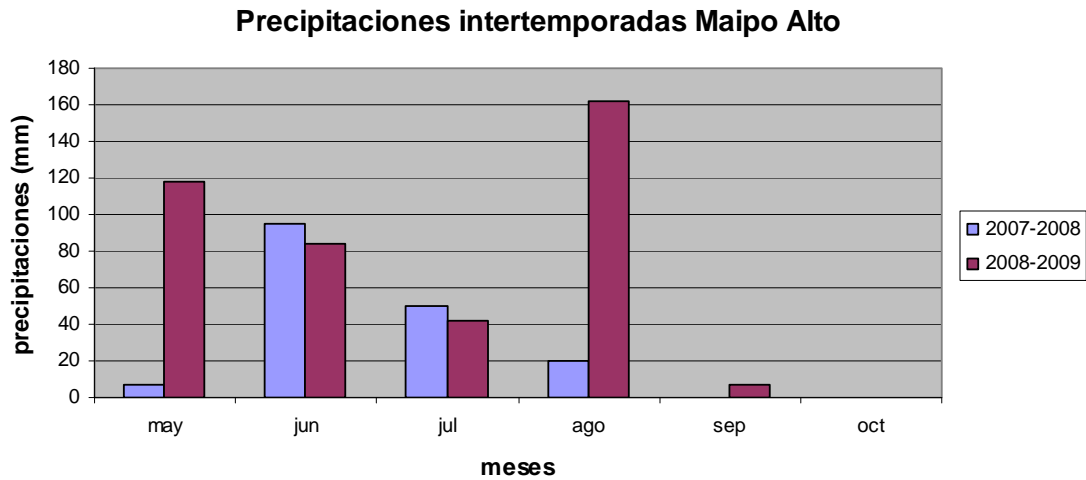
Yields were higher than expected in red varieties, with approximately 5 to 10% overproduction compared to the previous season. Fortunately, this did not affect the wines' final quality.

### **Climatic conditions**

#### **Rainfall**

Rainfall in this area was within a normal year's range, with a total of 414mm in Buin, unlike last season's almost 50% deficit (figure 18)

Rains came only until September, high temperatures registered in springtime and summer made necessary some emergency irrigation to avoid grapes dehydration problems. Thanks to this, the production loss due to these dehydrations was lower than the previous season, reaching 5%.

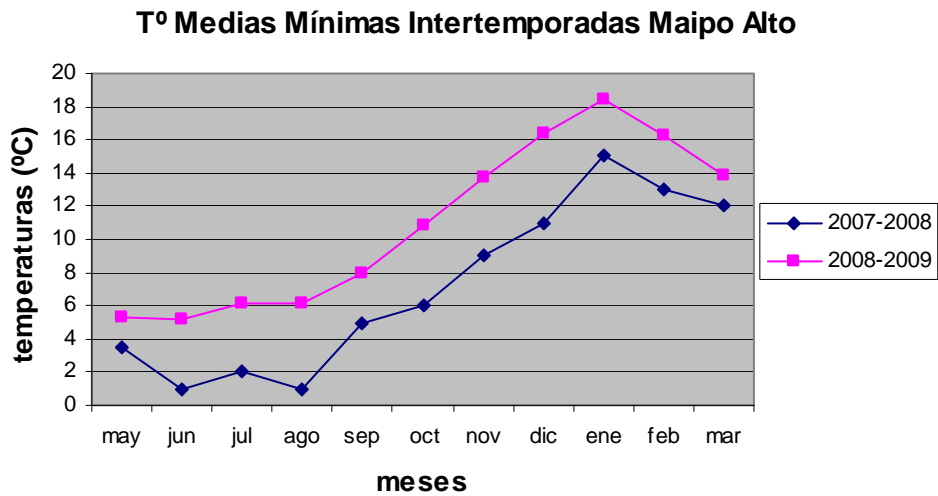


**Figure 18. Interseason rainfall. High Maipo.**

## Temperatures

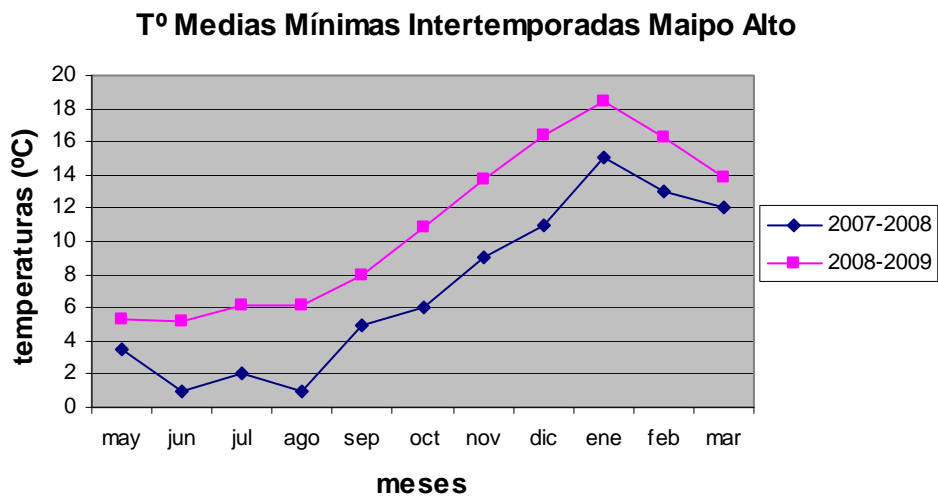
Like in the other valleys, winter temperatures were lower than those of previous seasons. Pirque and Buin registered the coldest winter months in High Maipo (Figure 19).

Average lowest temperatures were notoriously higher than the previous season, almost 3°C all season long. In spite of that, there were some winter and some mid September frosts (6<sup>th</sup>, 7<sup>th</sup>, 11<sup>th</sup> and 14<sup>th</sup>). Fortunately, sprouting began in the second two weeks, so these frosts did not affect the final yields.



**Figure 19. Interseason average lowest temperatures. High Maipo.**

Unlike the previous season, the average highest temperatures took place in December. Also, these temperatures (2008-2009) were considerably lower, around 4°C, than the previous season from October to March (figure 20). Due to this, ripening began later and it was around a month longer in some locations.



**Figure 19. Interseason average lowest temperatures. High Maipo.**

## **Wines characteristics**

Dehydration problems in some red varieties like Merlot and Cabernet Sauvignon were evident before than in the previous season, but the problem was lowest in general, without much effect in the whole production.

Wines in general have good fruit, strong tipicity of the área and variety. This year, the general characteristic is very good fruit, elegance, freshness and character, rather than concentration.

The Carmenere variety was excellent all season long, with a strong tipicity, much concentration, good color and optimum ripeness.

The Syrah were very concentrated, elegant with good color and fruit expression. Long and well structured wines with elegant tannins.

The Cabernet Sauvignon show complex wines with good tannins quality, fruit expression, very soft tannins and fresh.

## **Maipo Coast**

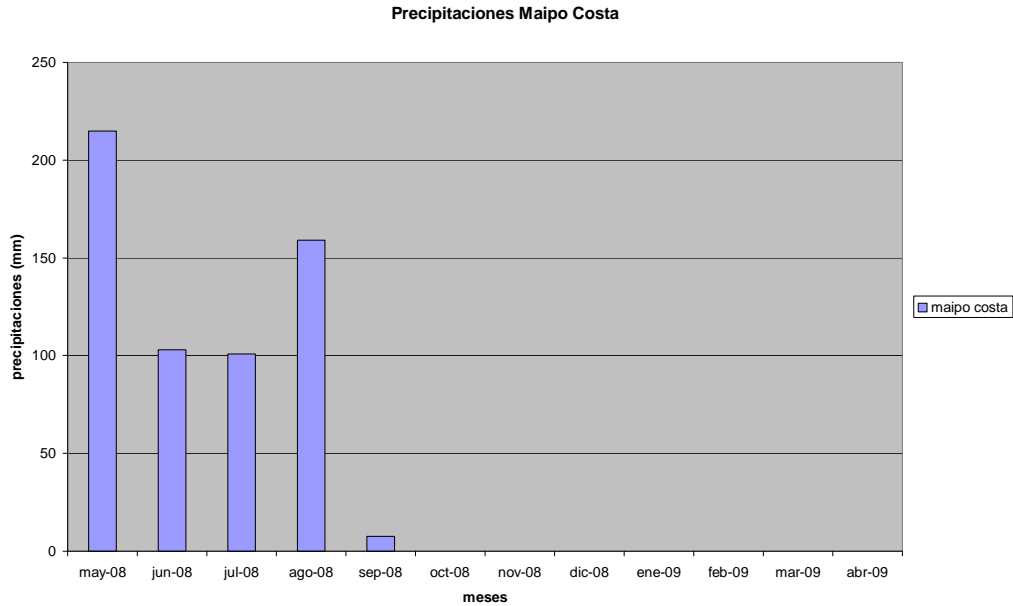
### **General conditions**

In general, the area closer to the ocean is more cloudy, the environment's relative humidity there is higher and day-night temperatures are more uniform.

Like the rest of the Maipo Valley, rainfall was concentrated in winter and was much more abundant, reaching 600mm during the period, which means almost 50% more rain than that in the rest of the winemaking central área (figure 21).

Average lowest temperatures varied very little during the season, with 5°C at most between the lowest, registered in June, and the highest, registered in December.

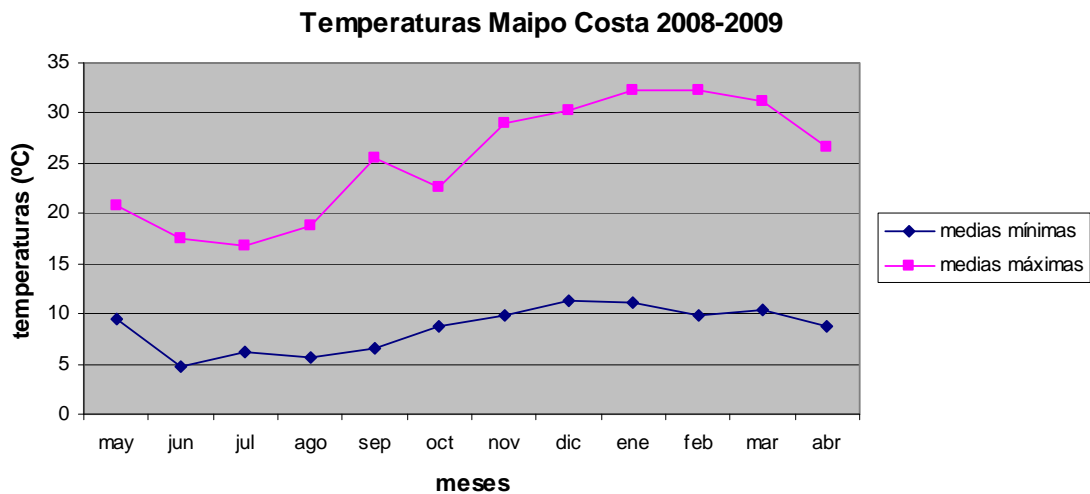
There were two frosts, one in May and another in August. None of them caused any damages, since sproutings were concentrated in September.



**Figure 21. Rainfall 2008-2009. Maipo Coast.**

Average highest temperatures varied more, with 17°C in July and 32°C in January. All these temperatures are above those of Central Maipo which are also above those of High Maipo(Figure 22).

Just like in the rest of the valley, the harvest took place between March for whites and April for reds.



**Figure 22. Highest and average lowest temperatures 2008-2009. Maipo Coast.**

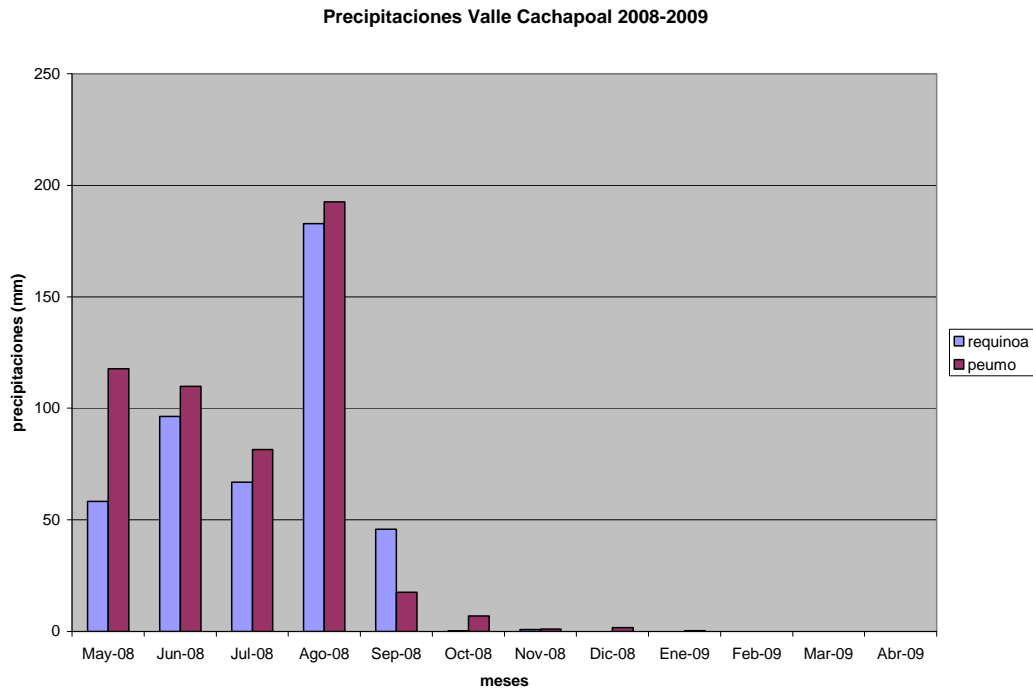


## Climatic characteristics

### Rainfall

Almost 520mm fell in the area during this season, way above the previous season with 328mm (Figure 24). This was concentrated in winter and its peak was in August. Rainfall was scarce in springtime and summer was totally dry.

In spite the summer high temperatures, therefore higher water demand, there were no water supply problems.



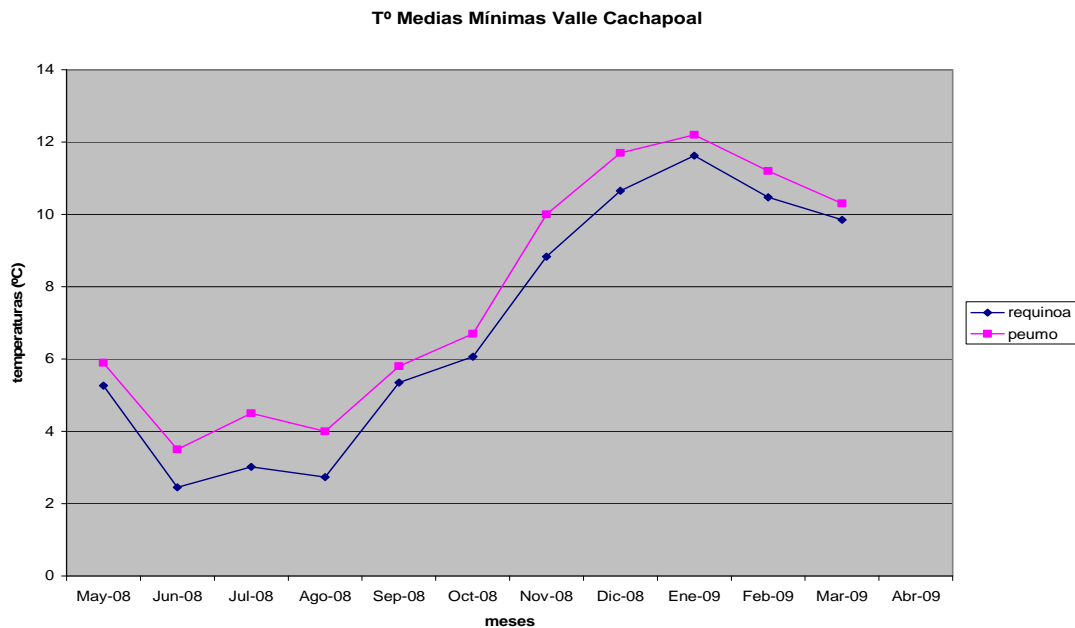
**Figure 24. Rainfall, season 2008-2009. Cachapoal Valley.**

Due to lack of rainfall in springtime and summer, the plants health was considered a very good one.

## Temperatures

Average lowest temperatures were a little higher than the previous season, reaching 2,3 and 12,22°C. In spite of this, several winter frosts were registered (around 5 each month) June and August registered the cycle's lowest temperatures (Figure 25)

There were no frosts in springtime, so the corresponding phenological cycles were not affected.

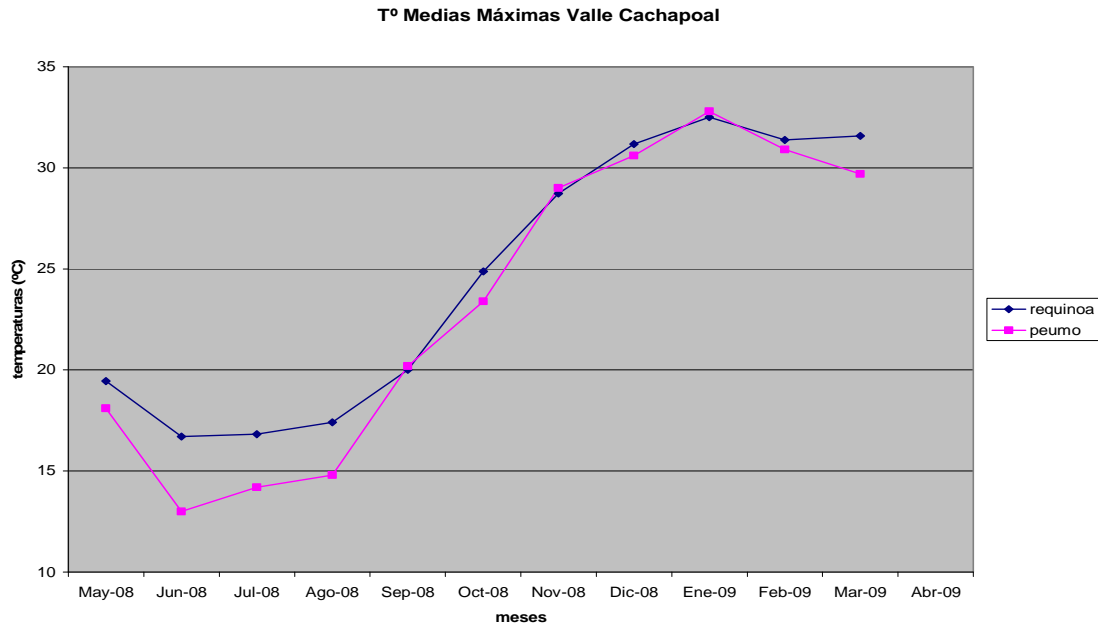


**Figure 25. Average lowest temperatures. Season 2008-2009. Cachapoal Valley.**

Locations had similar temperatures from September to February, whereas Peumo was colder in winter, with almost 2,5°C less in Requinoa.

Average highest temperatures in summer were close to 33°C in January (Figure 26). This condition, in spite of the abundant rainfall during winter, partly affected the dehydration levels in red varieties. However, due to a greater grape production, losses caused by this were marginal.

Incidence of this problem was different in different locations, since Requinoa registered a lower dehydration percentage compared to the previous season, whereas dehydration was higher in Peumo. Regarding Merlot, harvest had to be earlier in order to avoid damages and problems in wines. Regarding Cabernet Sauvignon, harvest was two weeks earlier and then concentrated in April.



**Figure 26. Average highest temperatures. Season 2008-2009. Cachapoal Valley.**

## **Wines characteristics**

Red wines presented different results regarding color, aromas and tannins, with Syrah and Cabernet Franc again outstanding in aromas and intense color.

The Merlot, like in other valleys, presented fair color as well as fair aromatic qualities and intensities.

The Cabernet Sauvignon presented good intensity and aromas quality. The color extracted was lower than that of the 2008 vintage and the tannins quality was good.

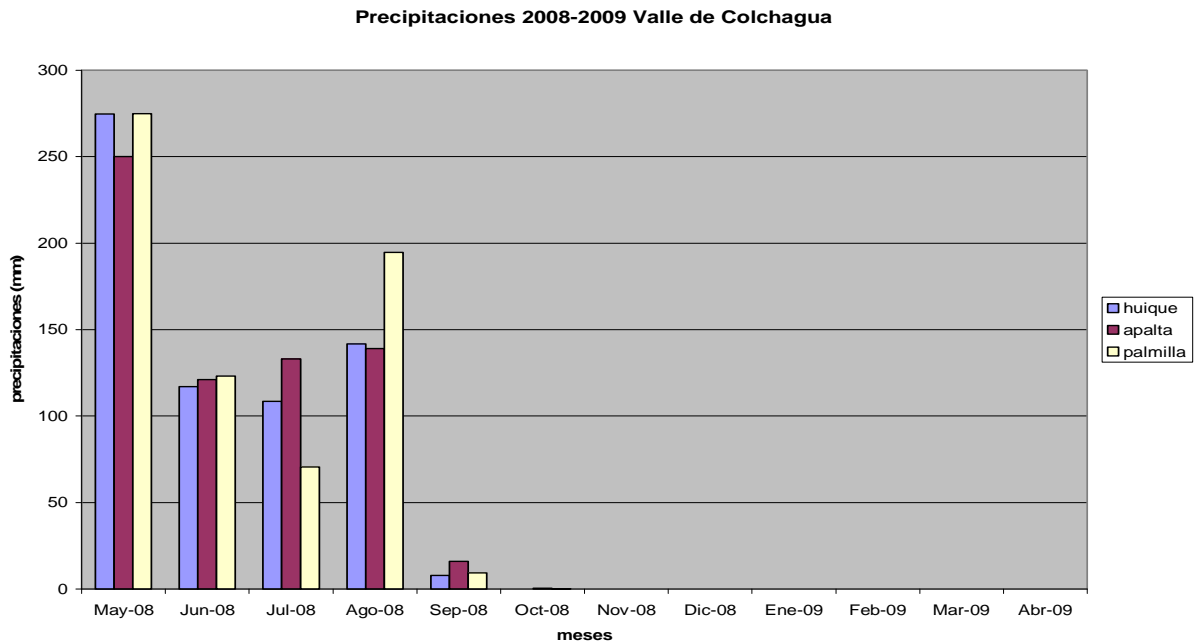
White varieties outstands Viognier in aromas quality and in mouth, the other varieties presented good quality and fair low acidity.



## Climatic conditions

Rainfall reached an average of 660mm in the region. This means a 20% surplus with respect to a normal year and a 71% with respect to the previous year. Rainfall was concentrated in winter and springtime and summer were dry (Figure 28).

No emergency irrigation was needed during summer, although flows decreased faster than other years due to high temperatures.



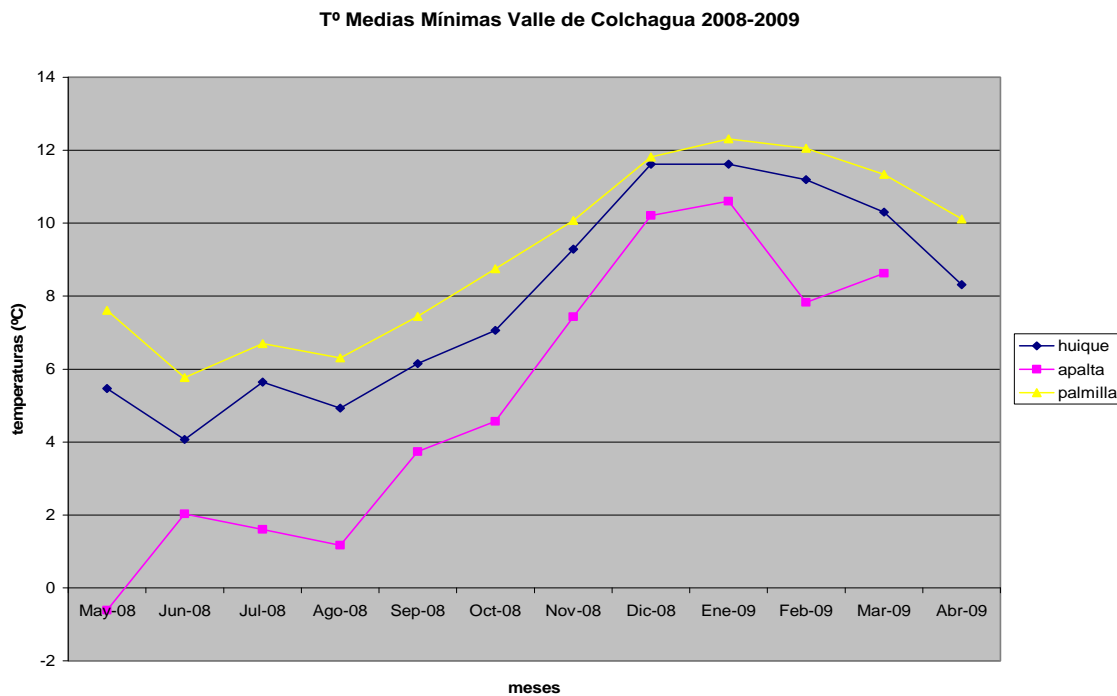
**Figure 28. Rainfall 2008-2009, Colchagua Valley.**

Productions were higher than those expected in most varieties, especially whites. Only older plants that could auto-regulate their production had a normal yield.

## Temperatures

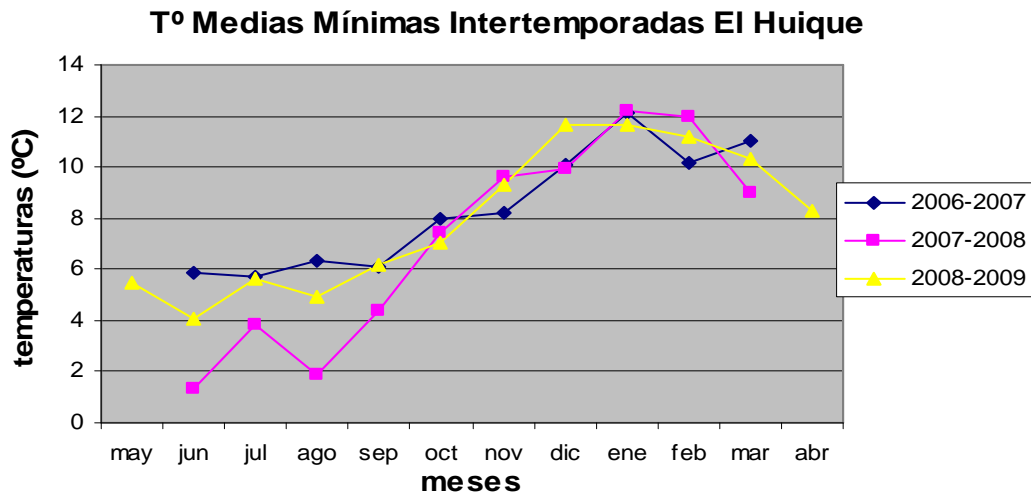
Temperatures in the area were different within the valley's locations, with differences in average lowest temperatures of nearly 7°C registered by the end of autumn between Palmilla and Apalta. These differences became less as springtime came, reaching differences of 2°C among locations (Figure 29).

In general, this was a year with average lowest temperatures higher than the previous season, especially in locations like Palmilla and Huique by the beginning as well as by the end of the cycle. The exception was Apalta, which temperatures fluctuated between -0,6°C in May and 10,6°C in January, unlike the previous season in which these extremes were 1,5 and 12,5°C in August and January respectively.



**Figure 29. Average lowest temperaturas 2008-2009. Colchagua Valley.**

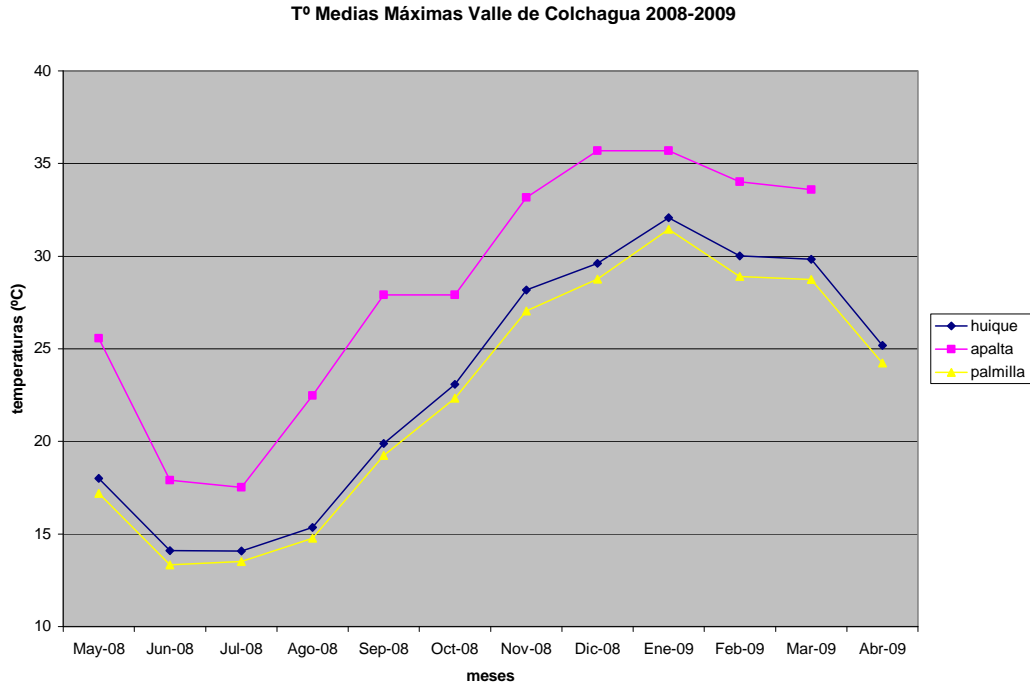
Average lowest temperatures in El Huique area remained relatively similar to other seasons. On the other hand, in winter these temperatures were notoriously lower in the previous season, compared to 2006 and 2008 (Figure 30).



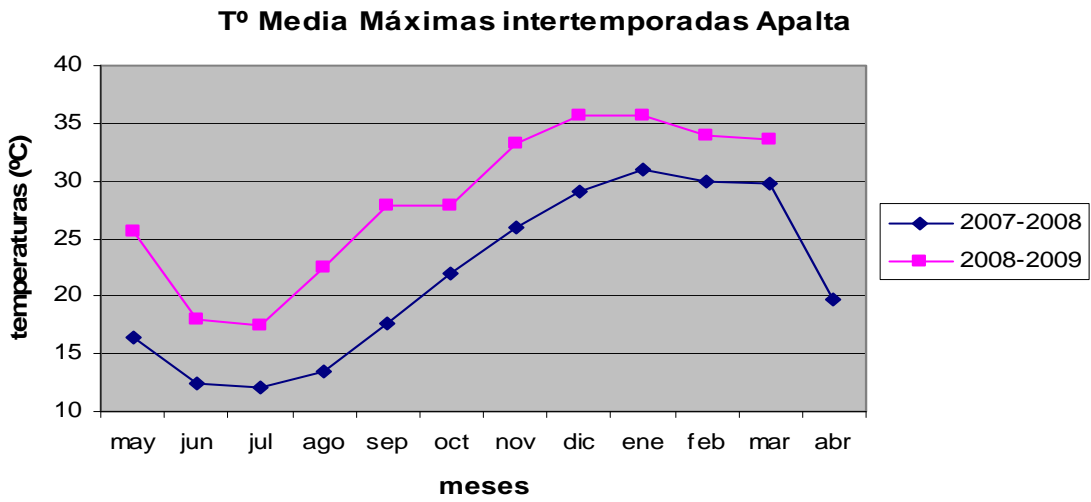
**Figure 30. Average lowest temperatures. Interseasons. El Huique, Colchagua Valley.**

Average highest temperatures remained relatively similar to those of the previous season, with temperatures between 12 and 31°C in June and January in Huique and palmilla locations (Figure 31). However, in Apalta there was a strong difference compared to last year, being lowest as well as highest temperatures much more extreme. Highest temperatures were around 4°C higher than the previous season, so in this area the thermal fluctuation in the plants' evolutionary cycle affected the different phenological stages, like sprouting, which was 15 days delayed in Carmenere, and ripening in most red varieties.

In summer, average highest temperatures were above 30°C in Apalta and between 29 and 30°C in the rest of the Valley. The lack of low temperatures and rainfall allowed waiting for the optimum moment to harvest which, especially in the Carmenere variety, took place between April and May (Figure 32).



**Figure 31. Average highest temperatures. Season 2008-2009. Colchagua Valley.**



**Figure 32. Interseason average temperatures. Apalta.**



## **General conditions**

To analyze this season, the Sagrada familia, Lontué and Molina locations were considered (Figure 33).

A relevant characteristic of this season was the excellent climatic conditions, with a total lack of rainfall which allowed determining the harvest dates depending on the desired optimum ripeness for each wine to be produced; that is how by the end of April the best red grapes were still on the vines, which resulted in wines with a concentration and ripeness of tannins that will start people talking and will make this vintage be remembered.

The whole valley showed good health in grapes and good acidity in all varieties.

Regarding white varieties, the vintage started 10 to 15 days earlier than the previous years. This is due to an early ripeness and to the correct decision to prevent as much as possible the decrease in the grapes' acidity.

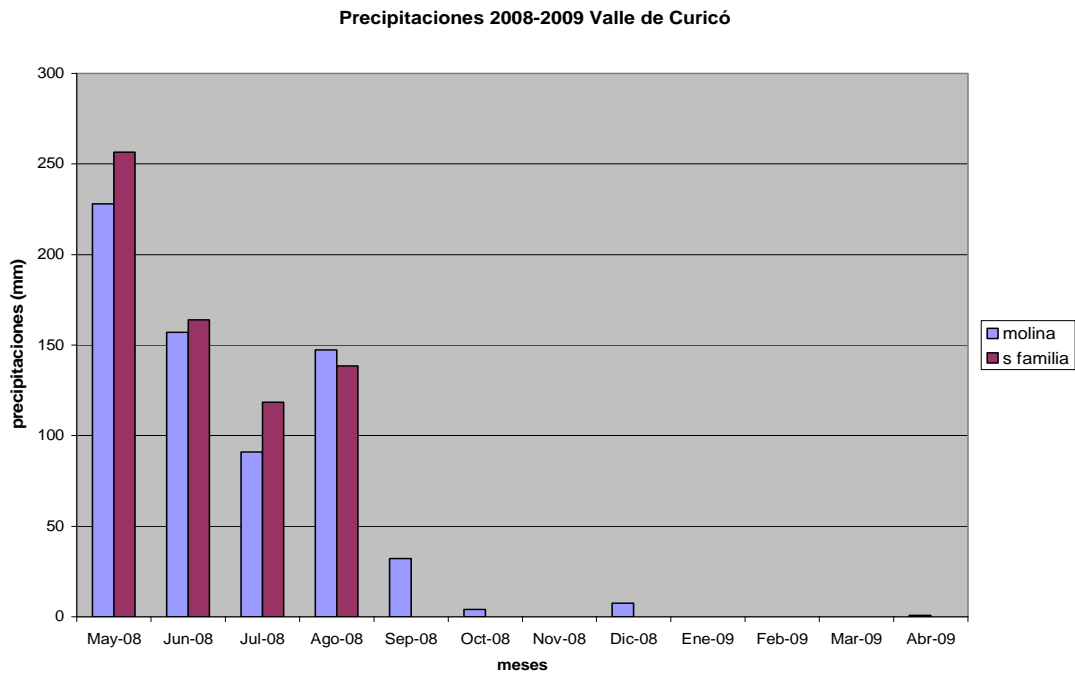
During springtime there were no frosts that could affect the vineyards and, like mentioned before, the excellent climatic conditions with no morning mist until the harvest time, allowed having totally healthy grapes. White grapes production rose 10 to 12% versus the estimates. Regarding reds, the final yield was 5% higher with regard to estimates.

## **Climatic conditions**

### **Rainfall**

Rainfall records in the different locations were: Sagrada Familia, 677mm and Molina 668mm, way above records of the previous season, with 330mm average in those locations, and it was closer to a normal year (660mm) (Figure 34).

Rainfall was concentrated mainly in winter. There were also small rains in springtime, around 30mm in September and 4mm in October. These did not affect the plants health or the sprouting in September. There was no rain registered in summer.



**Figure 34. Rainfall 2008-2009. Curicó Valley.**

## **Temperatures**

Like in all Valleys, there were low winter temperatures and higher temperatures during summer.

Analyzing temperatures in the different locations of the Curico Valley, we can say all of them showed lower temperatures in August, being Lontue and Molina the lowest in the valley during winter and Sagrada Familia the highest during the whole cycle, unlike the previous season in which all surveyed locations behaved similarly and temperatures fluctuation did not surpass 1°C (Figure 35).

T° Medias Mínimas Valle Curicó 2008-2009

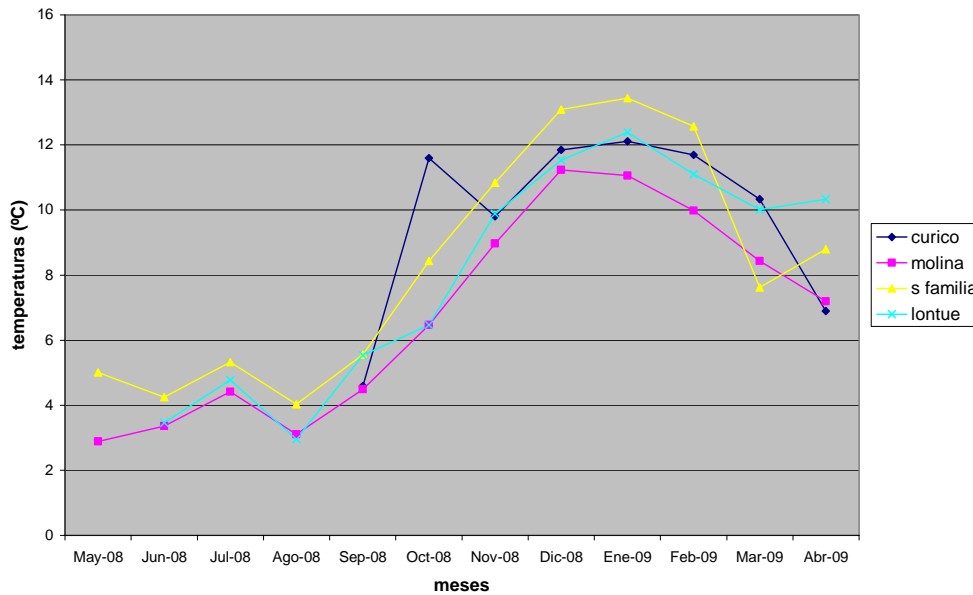


Figure 35. Average lowest temperatures. 2008-2009. Curicó Valley.

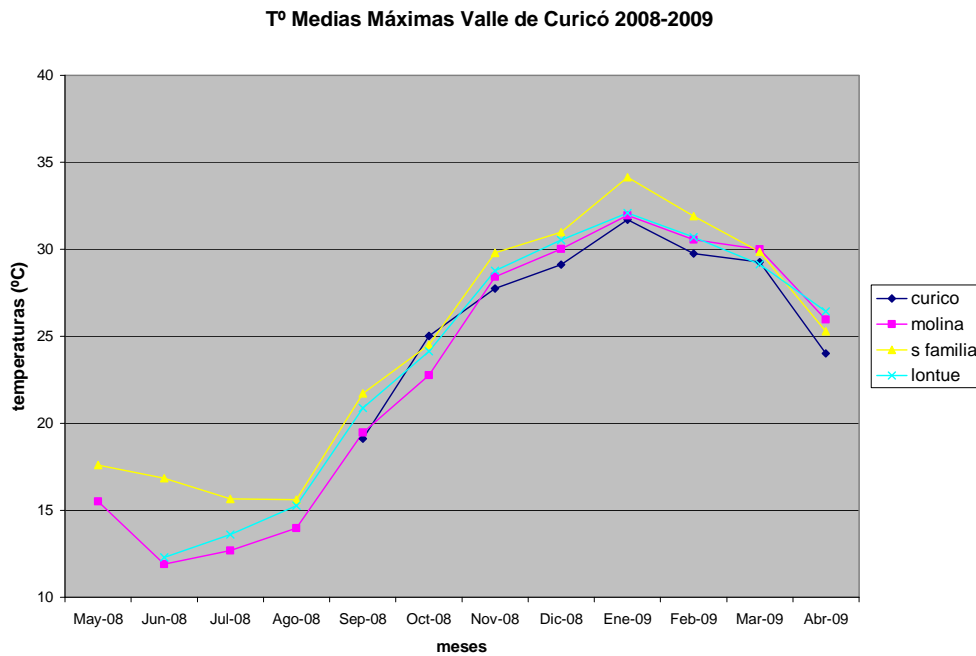
If we compare the average lowest temperatures with those of previous seasons, this year temperatures rose almost 2°C in winter. This meant a milder winter with little frost incidence. However, in summer these temperatures were similar to those of other years, reaching in January a peak between 13 and 14°C.

In September and October, the months in which sprouting concentrated in this area, temperatures were between 5 and 9°C, for which this phenological stage was not affected or delayed.

Frosts were only registered in Molina in winter. In springtime there were no frosts in the whole valley.

Average highest temperatures behaved similarly in all locations. Sagrada Familia registered the highest temperatures practically all season long, especially during winter months (Figure 36). These temperatures were also warmer than those of the previous season in the area, the extreme temperatures were 8 and 32.8°C in June and January and 15.6 and 34°C in August and January 2008-2009.

According to records, the average temperatures were: 30.9°C in January, 34.1°C in February and 31.9°C in March. This is 1 to 2°C higher than the same months of the previous season. These temperatures caused a rise in the brix degrees because of grapes dehydration. However, this phenomenon did not cause aromas development or caramelized or cooked flavors.



**Figure 36. Average highest temperatures 2008-2009. Curicó Valley.**

## **Wines characteristics**

This was a very good season for Chardonnay which showed a greater aromatic intensity and a wider aromatic range than the previous years, with outstanding tropical notes and greater volume in mouth. Very complex wines. Regarding fermentations development, there were no general problems. In some cases, however, they were slower.

Sauvignon Blancs must be separated in: warmer areas that show a fair aromatic intensity with some phenological notes in certain areas, and colder areas where the aromatic intensity varied from fair to high, with low pH resulting in harmonic wines with the typical aromatic quality that has characterized these areas.

Gewürztraminer has rendered wines with good aromatic expression very typical of the variety, with a moderate to low acidity and good mouth aromas development.

Pinot Noir showed correct color intensity appropriate to the variety, with lower acidity and higher presence of tannins than other vintages. They set the standard this season.

The Merlot variety showed fair to high aromas intensity and an aromatic range aiming more to ripe fruits. Fair color in warm areas and intense in colder ones. Regarding tannins, we can speak of more structured wines. Regarding fermentations, additional nutrients were required for yeasts in order to avoid problems.

Cabernet Sauvignon had greater aromatic intensity than other years. Very fruity aromas and no pirazine aromas from other years. It also showed very intense colors.

Just like in other areas, the Syrah had the chance to express the valley's great potential. It showed high color intensity, a great aromatic expression, well balanced acidity, kind tannins and a great aromatic complexity.

Excellent season for Cot. The grape has an optimum balance between its acidity and pH. A wide range of aromas and very good quality, round and silky tannins.



## Rainfall

Rainfall in the Maule area, although we don't have numeric data, was very close to a normal year all over the area and way above last year's 350mm. In spite of this, there were water supply problems during the year in unirrigated areas like Cauquenes and Parral. This caused some yield problems, with smaller bunches and smaller and lighter berries.

## Temperatures

The temperature record shows lowest temperatures slightly below 5°C in September and highest temperatures above 30°C in January. In general, seasons were quite delimited regarding temperatures which were quite mild, with no major frosts incidence that could affect production (Figure 38).

Highest temperatures were below those registered last season in nearly 1°C and up to 3°C in February (29°C in 2009 and 32,1°C in 2008, which was too high for the season) (Figure 39).

Owing to the fact that temperatures fluctuated within a normal range for the area, there were no delays in the different phenological stages in the plants.

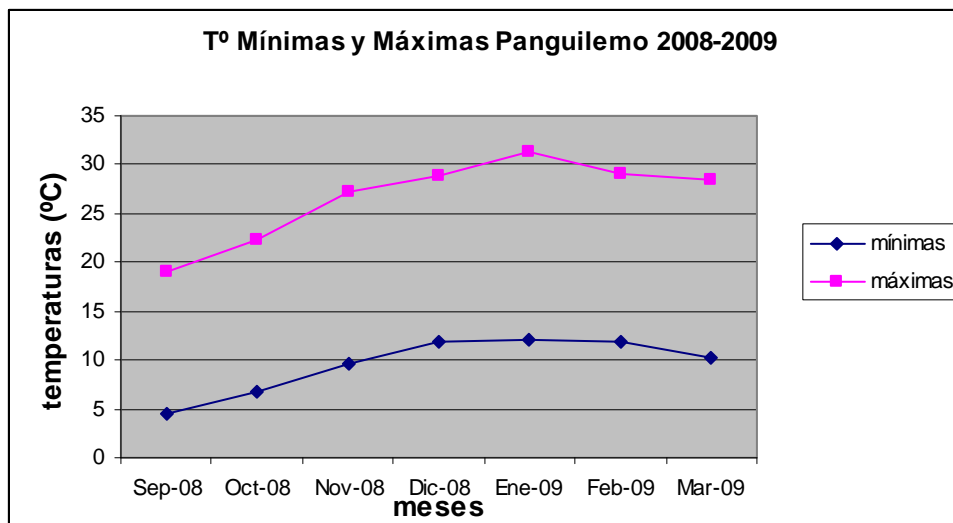
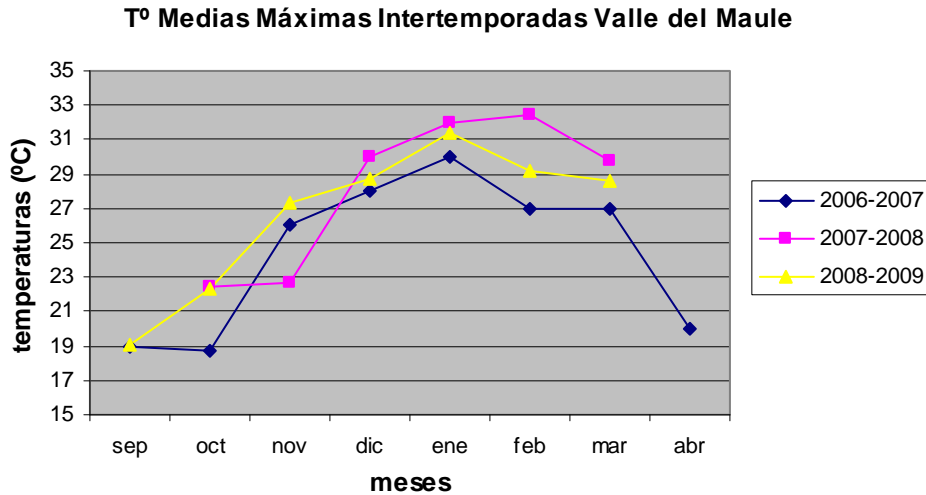


Figure 38. Average lowest and highest temperatures 2008-2009. Maule Valley.



**Figure 39. Average Highest Temperatures Interteseason. Maule Valley.**

## **Wines characteristics**

Grapes showed excellent health. In white varieties there was good quality and aromatic intensity. Sauvignon grey had very intense fruit notes, good balance and normal acidity. There were no fermentation problems, although there was a greater nutrient application in the grape musts.

In red varieties the aromatic quality and intensity varied from fair to good in Syrah and from good to very good in Carmenere. Acidity was low and pH from fair to high, although with good colors and tannins quality. Fermentations were normal, except in Cabernet Sauvignon and Carmenere, which were slower.

## Cauquenes

Productions went down 15% average in all varieties, being this important in unirrigated vineyards. These falls in red grapes production were mainly due to a lack of water, typical of the area, getting more concentrated musts and probably higher alcohol. In spite of this, fermentations were carried out normally, except in Merlot and Sauvignon Blanc and Chardonnay, in which this process took longer than usual.

Red wines showed excellent colors and very good tannins quality, maybe due to a change in the winemaking handling with less tannic extraction, which resulted in from very good to excellent quality and aromas intensity.

## **Malleco Valley**

This is the country's southern most valley. The varieties in it are mainly Chardonnay and Pinot Noir, which had a greater production (around 20% above the estimated).

Temperatures were normal except for those of the sprouting date, beginning of October, which were smaller than usual. In spite of this, the grapes yield was not affected.

Rainfall was almost 50% lower, which caused water supply problems during summer seasons and the beginning of autumn.

There was good health in plants, wines showed good color and fruit character in Pinot Noir and citrus and honey aroma in Chardonnays. Fermentations were normal.

June 23, 2009

