



## **MONTES DRY FARMING PROJECT**



**October, 2014**

**MONTES®**  
PRIDE IN WINEMAKING



## The Origins

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Since our foundation, key to Montes philosophy has been to work and behave under strict sustainable principles in our vineyards, in the winery, and in the relationship with our employees and community.

In 2009, recognizing that water is a scarce resource and that we need to be responsible in its use minimizing our water footprint, we started a pioneer project in the industry: the study of the impact of different levels of irrigation in vines, the quality of the grapes and the resulting wines under the premise that less irrigation means lower yields and higher quality.

These studies have enabled us to understand the irrigation needs of our vineyards and specific sectors.



## The Concept

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Under our **“Dry Farming”** philosophy, we leave nature to do the job of irrigation through rain.

**We don't irrigate unless nature does not provide us with the enough minimum rain that we have determined our vines need in which case we irrigate to compensate the difference.**

We have been able to decrease the use of water up to **65%**



## Frequently Asked Questions

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1. What vineyards did Montes initiate dry farming in and where did they expand this to?
  - Montes Dry Farming project started in our Fundo El Arcangel de Marchigue Vineyard and followed in our La Finca de Apalta Estate in the Colchagua Valley
  
2. Do you have the results of this impact study to share if requested?
  - Yes. Some are presented in this report. More information can be requested through Montes Marketing Department ([ewexman@monteswines.com](mailto:ewexman@monteswines.com))
  
3. What vintages truly showcase wine that was produced from totally dry farmed grapes?
  - Taita since 2009 (in 2007 vines were too young) , and Montes Alphas since 2012



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4. Are there any vineyards (due to soil type) that still need some level of irrigation and if so how much?
  - It needs to be stressed that the “Dry Farming” concept for Montes does not mean zero irrigation. All vines require a degree of irrigation which will depend on:
    - ✓ Vines in sandy soils are less tolerant to dry farming.
    - ✓ How dry or rainy the winter and spring of each vintage has been.
    - ✓ Some varieties can support better extreme droughts while others need little support
    - ✓ Wines crafted with fruit coming from “Dry Farmed” vineyards have a greater concentration of phenols which allow the blend to better undergo the natural oxidations that occur during barrel ageing.
    - ✓ Dry Farmed wines show a higher concentration thus require a longer barrel and bottle ageing to reach its optimum.
  
5. How does this viticultural approach ultimately affect the quality of the wine in relation to past vintages?
  - We have seen in several tasting panels that we have conducted that through Dry Farming we increase the concentration and final quality of the wines. We get more ripe fruit, and more weight in the mouth.



## Frequently Asked Questions

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5. Are any other estates in Chile carrying out this practice?
  - No

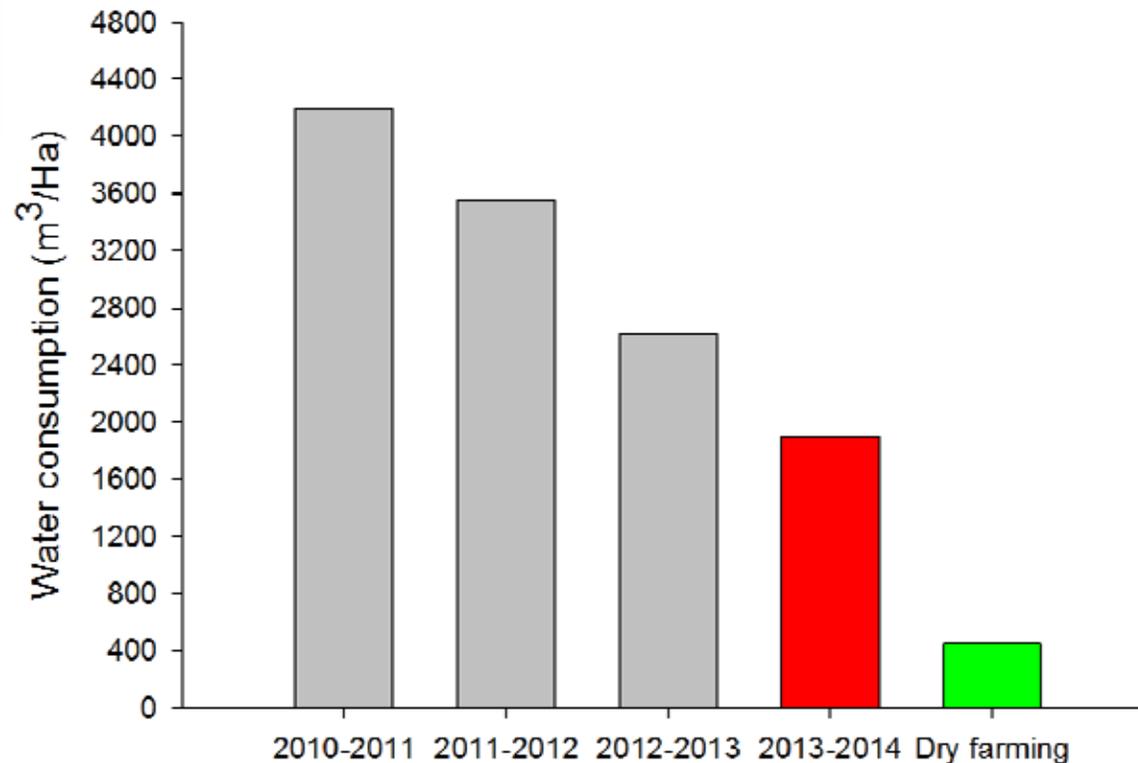
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Since water for irrigation is unavailable, Dry Farming exists in the Chilean area of the "Secano Costero" where vineyards are managed under basic viticultural practices

6. Is this carried out in the California vineyards or at Kaiken?
  - Not yet



## Dry Farming water consumption reduction



This graph shows the total water consumption per hectare in our El Arcángel de Marchigue vineyard, Colchagua Valley, in the last four seasons. We can see that in 2013-2014 total water consumption decreased by 65% with respect to the 2010-2011 season.

Source: Montes internal data

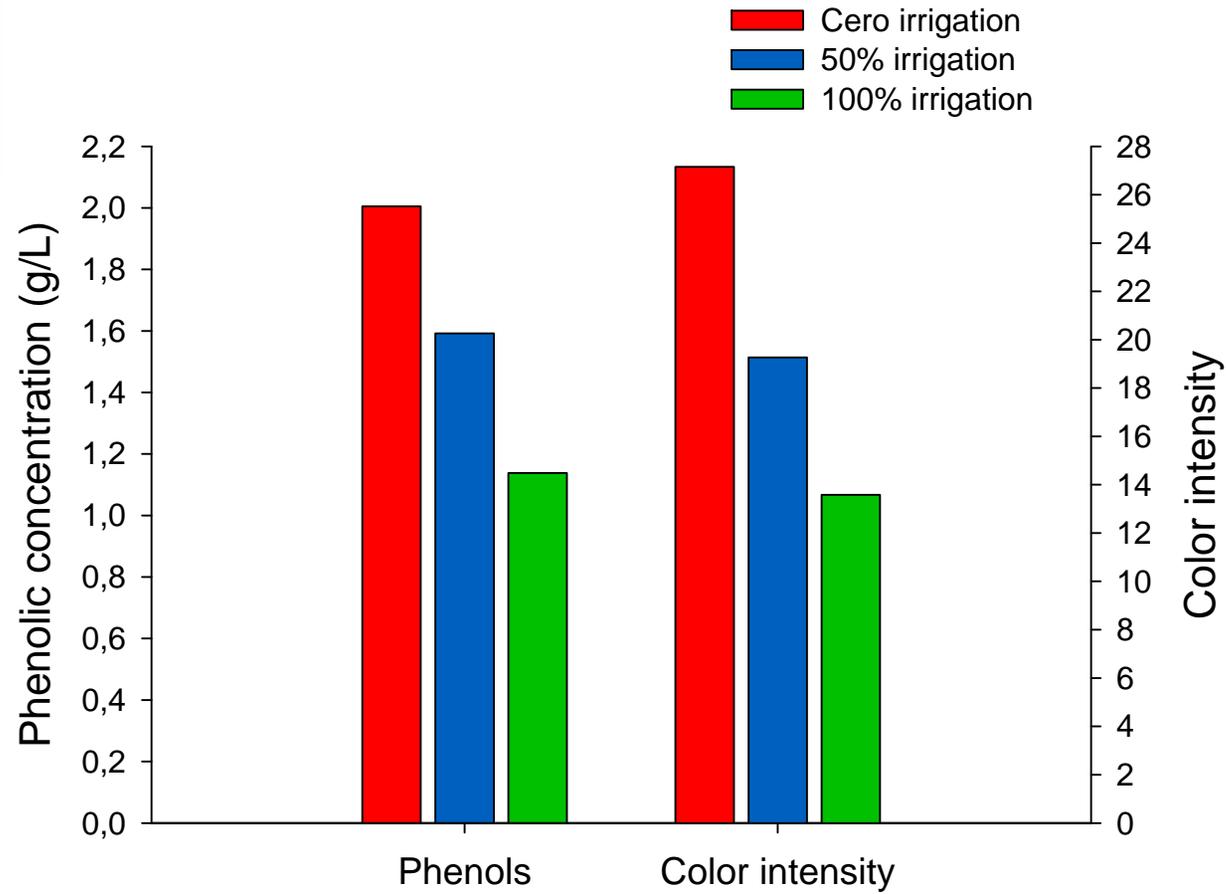


## Dry Farming crop levels

Parameter	Dry Farming	100% irrigation
N° Buds	6,2	10,0
N° Shoots	4,0	11,0
N° of Clusters	5,5	11,0
Yields (kg/Ha)	5.000 – 6.000	10.000 – 11.000



## Dry Farming total phenols and color



Wine phenolic concentration and color intensity increases with low irrigation levels

Source: Montes internal data



## Dry Farming effects on clusters

Zero Irrigation



100% Irrigation





## Dry Farming effects on Cabernet Sauvignon vines

100% Irrigation



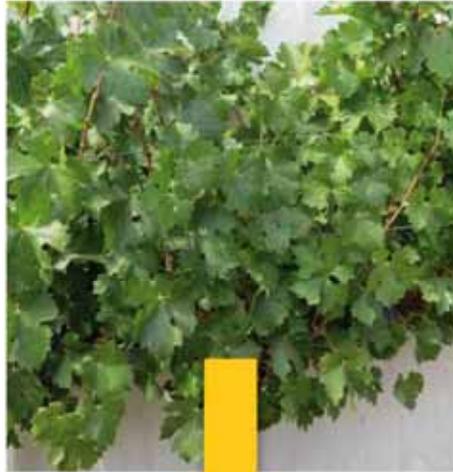
Zero Irrigation





## Dry Farming effects on wine production

100% Irrigación

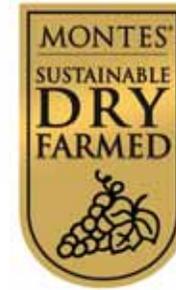
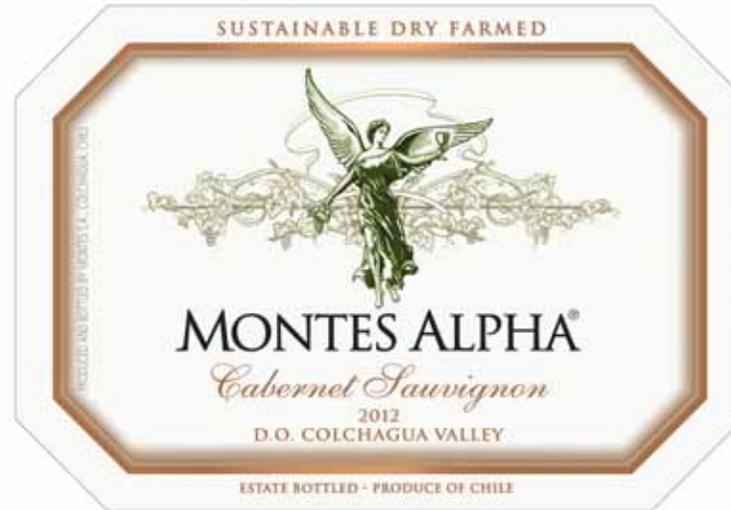


Cero Irrigación

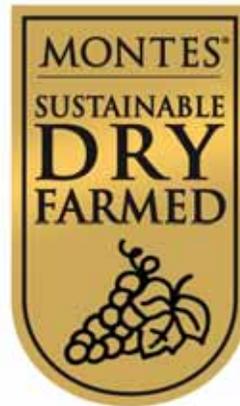




## Packaging



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