

Cold and Dry Thoughts for 2014

Paul Verdegaal, UC Farm Advisor

Below average cold, below average rainfall, increasing costs, more regulations and tougher competition; we seem to be experiencing our own modern day Iliad. But it could always be worse and Baseball opening day is only 55 days away.

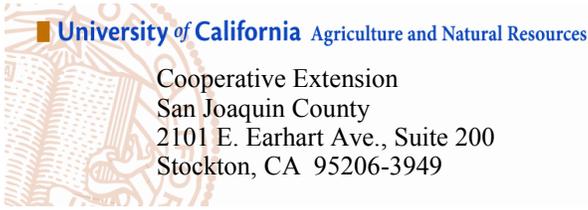
Dry conditions have taken front page attention to the recent cold weather. As no rainfall is in sight, questions are beginning to occur on growers' response. With that in mind I have put down some bullet points from local experience and after talking with Dr. Andy Walker:

- Mid-winter irrigations are a good idea now, if not already.
- Irrigation in and of itself won't start growth, as average temperatures need to be above 50°F on an ongoing basis. Soil temperatures are slower to respond to warming, especially after this cold winter. Temperature trumps water availability with regard to vine growth.
- Usually budbreak for Chardonnay occurs at about 300 Growing Degree Days (GDD) in Lodi, which is March 15th over the long term. This year we currently have 100 GDD as of January 24, 2014. We seem to be gaining about 4 GDD per day as the daily maximums are 10 to 12 degrees F ABOVE normal, but minimums are 8 to 10 degrees BELOW average.
- The bigger problem is roots are still active, although at a very low rate. Dry soils create dry roots that can result in erratic budbreak, delayed push (maybe advanced), odd shoot growth similar to B deficiency (this is Barnes' Syndrome of drought induced B deficiency. This year, induced B deficiency is real and can also affect fruit set.
- Other nutrients can also be affected; as we may see potassium deficiency like symptoms during the season and even nitrogen uptake and utilization may be affected.
- Irrigations of at least 24 to 36 hours, depending on soil texture and depth. Split applications over a few days may help. Then wait for the next rain.
- If only a week or 10 days have passed before a rain approaches, irrigate again but only "half irrigation" (12 to 24 hrs) maybe.
- If several weeks have passed and rain is coming, irrigate right before the rain with another 24 to 36 hours plus.
- If no rain in 21 to 30 days, irrigate "fully" (24 to 36 hours) again. Irrigations should be more accurately considered in acre inches so the number of hours depends on vine spacing, but for consideration here hours should do.
- Irrigate every 3 to 4 weeks if no rain shows up; until budbreak.
- Irrigate on a reduced ET schedule on the low side of about 50 to 60% for reds and the high side for whites.
- If applying residual herbicide now, irrigate berm immediately after to help "set" the herbicide. Split sets may help wet more of berm.
- During any hot spells later on, apply as much water as possible (100%ET), as vines make progress towards harvest.
- All of the above depends on soil texture and depth, and cover crop presence/absence. And grower/winery goals.
- Add 15 to 20% for cover crop or non-cultivation (resident vegetation) sites.

The other odd thing about the Winter of 2014 is; this is the one year everyone probably should have pruned their *Eutypa* sensitive varieties a month ago! But at this point pruning late may help delay budbreak slightly. Or prune to long spurs now and make the final cuts as vines begin to push.

All of these points are my view as a Farm Advisor. (As such, batteries are not included and may require some assembly.)

Good Luck in 2014.



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Along The Grapevine

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