

March 5, 2008

If Punxsutawney Phil had been at Iron Horse he wouldn't have seen his shadow, meaning an early spring, at least here at Iron Horse. The Wild Plums are in full bloom.



Even the apple buds are starting to 'push,' although, the buds on the vines are mostly still dormant (phew). The problem – or my fear - is 'shatter', like last year, mainly because then we had a very cold winter (for us) and an early spring, meaning above ground it was warm, while below ground, mainly in the root zone, it was pretty cold. I'd like for that not to happen this year, or ever again for that matter.

In the meantime, even if we aren't pruning, we're still busy, mainly tying, where needed, in K, I, G, B North and B South. Basically we're laying canes, cordons or extensions flat on the fruit wire. This is best done before the buds begin to swell so we don't have to worry about knocking them off. For the record, I don't tie. First you have to be gentle (I'm not), we don't want to force the wood, next you have to be able to tie knots (I'm lucky when I tie my shoelaces correctly each morning) and finally, not cut yourself with the knife-ring-twine-cutting-thing the guys wear, as shown below (I tend to talk with my hands, I'd be a danger to myself and all around me).



Precision Winegrowing: What does it mean?

We pride ourselves on being “precision winegrowers.” But, when people ask me what that means I tend to tell them what it isn’t, i.e. it isn’t a high tech response to organic and biodynamic farming – fact is we used GPS etc. technology once, to get an accurate map, and that’s it. Curiously, a recent article in International Journal of Vine and Wine Sciences actually used the term “Precision Viticulture,” in the following context:

“We know that, within a single vineyard, yields can vary as much as 10-fold. This, in turn, is believed to affect fruit quality. In the past, growers and winemakers have had to treat this variation as ‘noise’ and manage the blocks as if they were uniform. But today, Precision Viticulture allows us to quantify this variability, and to react to it.”

Boiled down, it turns out we are ‘managing variability.’ In our vineyards no detail is too small, e.g. when we tie we now only use twine, not green plastic ties that will, in time gird the vine and unlike twine aren’t bio-degradable. Also, no more wrapping cordons around the wire, also bad for the long-term health of the vines. Mainly though, we pay attention to the vines and react appropriately while working to avoid as much variability as possible in the new plantings. So it is especially gratifying when a brilliant publication like *Wine & Spirits* recognizes what we are doing, as it does in its April 2008 issue, giving the 2006 Estate Pinot Noir a 91 and then saying, “The work of the new vineyard team at Iron Horse is beginning to show in its Pinot Noir, if this rich and satisfying 2006 is any indication.”

Focus on a Block: Q

I doubt there is a block that has such problematic variability, requiring serious management, as our Q Block, although, the variability is more our fault than that of nature. Here is how Paul Anamosa, PhD. described the soil:

The data generated for this report ... does support the Hugo loam series that is found just west of Block Q. The soil was divided into two different morphological groups based on the sandstone or shale parent material found in the profile. Generally the soils were relatively shallow loams over sub soils of loam or sandy loam. Rock content in the surface horizon ranged from 10-70% with an average of 25%. The rock content in the entire profile averaged 50%.

In short, perfect for Pinot Noir.

Q, is only about 2.5 acres (or one hectare), and has been described by John Winthrop Haeger, author of *North American Pinot Noir*, as looking like an armadillo. I see less armadillo and more a *décolletage* (or *derrière*, depending on one’s perspective), which (in either case) reminds me of Carla Bruni Sarkozy (a fine first lady and chanteuse – I’ve had her album “*Quelqu’un M’a Dit*” on my I-Pod for years, although her English language release “*No Promises*” was pretty weak, I think breathy singing a la Françoise Hardy and Jane Birkin only works in French).



Notwithstanding the fact that from Q we get some of our best Pinot Noirs, I have some serious issues. First the row direction is not optimal for Pinot Noir (although less of problem because of the training). Second the spacing, 10'x4' (10' is the row width) means less overall production. Third, two clones, on the lower eleven rows Pomard 4, on the upper eleven alternating Pomard 4 and "Geisenheim." I found the following on the internet: "Geisenheim Gm-type 1-x Gm (e.g. 1-44 Gm 1-84 Gm 1-11 Gm): larger bunch-structure, longer stalks; average botrytis-infection 8-10 %; very high yield; high acidity; sour-cherry aroma (not desirable in a classic Pinot Noir red wine)." Luckily clones perform differently when in different locations and only 18% of the block is Geisenheim. Strangest of all, vertical cordons...



I don't know why. I just know that at first the spacing was 10'x8' and then someone figured out there was room to interplant, and so we did. Except the inter-planted vines are Pommard 4, and because we couldn't rip (the older vines would get in the way), they're smaller.



If it weren't for the fact that the wines taste great, this would be embarrassing. More to the point, before 'precision viticulture,' we had a lot of variability. Now if the vines need water, they get water, the newer, smaller vines have fewer positions, which means less fruit, but the shoots are balanced from vine to vine, as are the clusters, etc. Finally precision picking, the fact is that the first eleven rows (exclusively Pomard 4) taste better than the upper eleven, so David Munksgard vinifies them separately.

Going forward we are already at work on the plans for a new and improved Q and P.



We may lose about a third of an acre, but we should more than make up for it with the tighter spacing and increased number of rows. Also, what was two blocks will be five (meaning five irrigation zones, another way to manage variability), the vines will be cane pruned, the clones segregated within each block, and row directions appropriate to the slope and Pinot Noir. It's precision viticulture.

Offal Monday Update from K&L:

Pig feet ragout with pork belly a l'orange, with endive and lentils. So damn good and still offal.



February 19, 2008



It's been, at least until today, beautiful. Fog in the morning so no frost, and sun in the afternoon. Dare I say an early spring. The acacia is blooming...



So is the mustard in the replant blocks and we've got daffodils, in mid-February.



Here's a juvenile Cedar Waxwing enjoying some last of the winter berries:



So it's hard not to feel like it is spring. Even the Buzzards are frisky. (Yes there are two in the picture below, only one, I think it's the male, is smiling, when looked at closely. Of course one may ask do buzzards ever really smile?):



We are still pruning, with about 10 plus acres left to go, we should be done in about a week, depending on the rain. We're just finishing up in B North (go to the new and improved vineyard map above to get a sense of location and then come back). Both B blocks are still being trained, which is disappointing considering they were planted in 2001. Remember, good grapes only grow on wood that is new, this year's shoots, but the amount of grapes depends on how many linear feet of bearing wood we have. So, if the spacing between the vines is five feet, and the vines are cordon pruned, there should be five feet of cordon for each vine. Any less means fewer grapes, and make no mistake, less does not mean better.

The key is to train the vines properly, preferably best from the start, but if not, we have to be willing to start over, which is what we've had to do with many of the vines, hence my disappointment. The usual mistake is to take the two longest shoots (if doing bilateral cordons, unlike unilateral cordon pruning, where there is a single five to six foot long cordon) on a given vine and do whatever it takes to lay them down. However, bends in the wood are like blocked arteries, a weak shoot will just become a weak cordon, and we want the vines to be balanced so the grapes mature with a certain degree of uniformity. So we have to be patient and I hate having to be patient. Very few vines will produce shoots after two years that can become 30 inches worth of cordon with five positions on each side. Sometimes you may only get 15 to 20 inches. Sometimes there aren't two strong shoots, so all we can do is leave spurs. For the most part after three seasons of tough love, we've reached a point where the majority of the vines have cordons, but short cordons, and now we need to determine if they can be extended. To avoid any more errors we have a number of rules: If the vine was extended last year, no extension this year; if there aren't two shoots (one on each side) that are properly positioned (i.e. one of the shoots is too high above the fruit wire or too 'vertical,' in either case requiring some serious bending), and strong enough, no extension this year; the extensions must be even; and don't cut until you have a plan. Mainly we want each pruner to take his time. Below is Manuel Briano, first studying the shoot, which is a perfect candidate for an extension, and then making the last cut.



The vine below is an example of what we want to see (except it was planted on a highway post, something we try to avoid whenever possible in the new plantings), note, two positions on each side are carried over from last year, while, most likely only two more will develop this year, meaning, if all goes well, in 2010 we'll be able to add one more on each side to fill out the wire.



To end, Trippa alla Romana (calf's tripe in a tomato sauce, yum) from a recent 'Offal Monday' at K&L Bistro in Sebastopol, we were supposed to have stuffed pigs' trotters, but they were running late (man I love that pun). According to Chef Lucas Martin cooking time was a quick eight hours. Sorry for the 'quality' of the picture, I only had my i-phone.



February 6, 2008

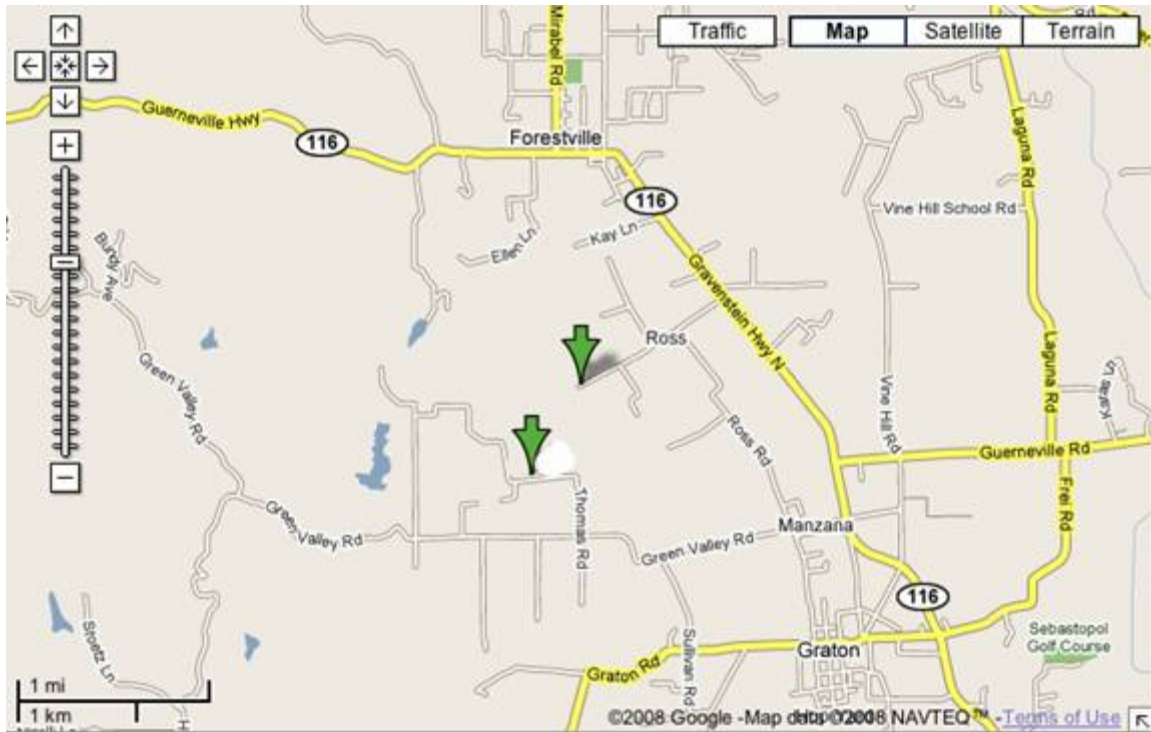
We're still pruning, when it's not raining. So far we received a daily average of about .63 of an inch in January. Out of 31 days, 18 had more than .02 of an inch and only 7 were rain free. On one day, Friday, January 25, we recorded 4 inches in a twenty-four hour period. I have some very specific requests as to amounts and timing of the rain and I'm just not getting the cooperation I need. Needless to say we've had a little flooding.



That's the West side of the creek, here's from the East, the water was about three feet over the bridge:



To put things in perspective: a map. The arrow to the East (the right side) marks our main entrance off of Ross Station Rd., the arrow to the West, on Thomas Road, is the back way in. If the creek at Ross Station Rd. is impassable, then, in theory we go the back way, taking Thomas Rd. to Green Valley Rd. to Hwy 116 and then on to the rest of the civilized world. Reverse for the civilized world to get to us.



The S-curve on Green Valley Road was a challenge.



Green Valley Road before Ross Road was impassable.



Even Graton Rd. in downtown Graton was iffy.



Still, the frogs, the geese and the ducks are happy, and the turkeys don't seem to mind either, both the ladies, like this sweet little hen,



and the gobblers.



(I went online to find out when turkey season starts; this is what I found: "March 29 Gobbler season - Spring wild turkey hunting season opens for a seven-day run, closing May 4." I guess there's no written test to get a hunting license.)

Finally, out came the sun and the coots.



Mainly we're back pruning, right now in G, which is a challenge. Starting in 2005 we've been cane pruning G, which was a great way to train us on how to cane prune before the replants in C, H, J, A etc. come on line. The problem is that the vine spacing is five feet, while optimum spacing for cane pruned is four feet, so we are losing about a foot per vine's worth of grape bearing wood. That means not enough grapes, so we decided to convert G to cordon (you can always go from cane to cordon, just not from cordon to cane). But we want to do it right, which means it will take us about three years. Until then, seven possibilities: cordon; two canes, no spurs; two canes and a spur; one cane and a spur; one cane, no spur (modeled by Daniel Roberts below); two or one spurs, no canes; and 'topped,' i.e. three or four buds 4 to six inches below the fruit wire.



Most crews couldn't handle the complexity, but Victor and the guys are best team around. Meanwhile 'Offal Mondays' continued at K&L, Beef Tongue Pot au Feu one week, and Lamb Kidneys the next.



I've been told that most people don't photograph their food. I think they are in error.

January 22, 2008

Last week was a great week. We pruned. It didn't rain. Lucas Martin began "Offal Monday" at K&L (I take credit, not for the idea, for that blame Daniel Roberts, I came up with the name) with the best sweet breads I've ever had; so good I had a 'sweet bread high,' and the perfect wine match; 2005 "Q" Pinot Noir. The next Offal Monday we feasted on calf's liver, great with '03 Brut Rosé. To come: beef tongue and kidneys, not at the same time – I'm already thinking about which wine matches best with tongue, I thinking Native Yeast Chardonnay as it has the best mouth feel.



How can one top thymus and/or pancreas glands of a calf? Shaking hands and a speech from Barack Obama of course... another kind of high.



The audience was fully engaged, I believe the proper word is rapt... and for the truly observant, yes Iron Horse BDX-3 and Cuvée R are on the tables, what other candidate is brave, and cool enough, to serve wine, particularly Iron Horse at a fundraiser lunch? One with a 1,000 bottle wine cellar.



Then to cap off a perfect week, David Munksgard assembled the 2007 sparkling blends. He started with 14 lots of Pinot Noir and Chardonnay (some press run, some free) the end result will be five cuvees, it looks like seven, but there were two versions of the Wedding Cuvée and the Brut Rosé (we chose the two on the right), along with a Blanc de Blancs, a Brut and our first Pinot Chardonnay co-fermentation, Joy. The Brut (third from the left) is without a doubt the best we'll have ever made. Reason to be around five years from now.



Of course we're still pruning but it's the babies in C. Here's Daniel Roberts making sure the team is properly trained, because if anyone makes a mistake on a baby vine now, it will take years to remedy. We may actually get some grapes this year.



An Elucidation on Irrigation at Iron Horse

At a Corral Club event last summer a club member asked me what was my philosophy when it came to irrigating vineyards. Poor man, I immediately responded, "no philosophy." I then apologized and started to explain but realized one can be liable for boring a person to distraction and simply left the matter as, "well, it's complex." Of course I was lying. It really isn't that complex. There are three factors that determine whether or not to irrigate. First is irrigation water available? If it isn't then you 'dry farm.' For many decades most Green Valley apple orchards were dry farmed, just like the one artily photographed below:



The reality is that Green Valley isn't all that green, at least not in summer. It is often said of our soil type here in Green Valley, Goldridge, "provides good drainage" and where you have good drainage you don't have a lot of natural ponds and/or wetlands. However at Iron Horse we do have a reservoir, and multiple water sources, rain, the creek, grey water from the winery and best of all advanced treated reclaimed water from Forestville. Right now our reservoir is good and full, with about 40 or so acre-feet worth (an acre foot equals 325,851.42 gallons) of water. That water is being held mainly for frost protection, but later on if we can get more (which we will) we'll have water to irrigate.

The second factor is the weather (remember, climate is what meteorologists study and forecast, weather is what we get), mainly how much rain and when. Note that in France, Spain and Italy it rains year-round, here we have a rainy season. At times I can empathize with my fellow farmers in the sub-continent waiting for and dealing with the monsoon. The key facts are that you can't grow grapes in a desert (without water) or in a swamp (vine roots need to breathe). Without ground water you're in a functional desert. Without drainage you're in a functional swamp.

We know Goldridge provides good drainage, and we know that is good. For example P & Q are great for Pinot Noir because the soils have a lot of rock and Pinot loves rock (I like some rock, like Dire Straits and Bruce Springsteen, but otherwise tend to be more eclectic when it comes to music), because rock drains really well which means smaller berries and more intense pinot flavors. But we still need some water, otherwise no berries, so we still like the other property of Goldridge, that it is capable of holding some water. As I'm typing it is raining, a cold boring rain, which means we can't prune, etc., but needed. Not just to fill the reservoir. That's already happened – see above. Most rain will drain out of the soil or flow over the surface into the Green Valley Creek, to the Russian River and end up back in the Pacific Ocean. Some of it will percolate down and be 'stored,' but not like in a bottle, more like in a sponge, it will become 'available water.' Some water will be taken up by the vines, some by other plants, like the cover crop, some will continue to drain and there will be some evaporation. Hence the timing of the rain is important, too early in the year and there may not be enough available water during the growing season, too late and there can be too much water, vines will be too vigorous (i.e. too much vegetative growth, leaves and shoots), and even, as was the case in 2006 the scourge of bunch rot, which means we have to drop fruit. I hate that.

Which leads to the third factor, the needs of the vines. A confession; two of our favorite Pinot Noir blocks are dry farmed, P7 and P6 because we can. Another favorite Pinot Block Q, the rocky one needs a lot of water, perhaps because it's rocky? Young vines need water, as do old vines on AXR rootstock where phylloxera are

eating away at the roots. All vines need water when it's too hot – if I know it's going to go over 95 degrees we'll irrigate that morning.

At this point, if you are still reading, you probably are thinking, “but what about all the stuff about ‘stressing the vines’ and ‘deficit irrigation’ I’ve been hearing about?” Good question. One that I always answer with, “yeah, how much stress?” and “deficit irrigation doesn’t mean no irrigation, just not as much at certain times.” But even some of the ‘rules of deficit irrigation can be problematic. Let me illustrate with a story: In 2005 in one of the Thomas Road Pinot Blocks, P2, after veraison (when you aren’t supposed to irrigate any more) David and I noticed that the basal (or lower) leaves were turning yellow and falling off, we were losing canopy. We called Daniel Roberts and got his opinion, so we quickly irrigated and added some potassium and the vines were ‘stabilized.’ When it came time to pick, David had the crew pick first the ‘stressed vines’ and kept them as a separate lot. Months later we tasted the two lots from P2, the first had a nose that was reminiscent of nail polish remover. In the end it was easy to blend out, but we learned a valuable lesson, better to irrigate, even after veraison, than over-stressing. More to the point don’t have a philosophy. As Ludwig Wittgenstein wrote:

“The fundamental fact here is that we lay down rules... and when we follow the rules things do not turn out as we had assumed. That we are therefore as it were entangled in our own rules.”

So, in a block like P2, that is hard to irrigate, we're better off making Brut Rosé. Below, another form of storing water, rare in these parts, snow on Mt. St. Helena.



January 7, 2008

At last, we've had some rain...



At first, not enough, we only had 9.72 inches in December. It seems our rain has been coming from Alaska by way of British Columbia, hence, colder, drier rain. Not as wet as rain from Hawaii. Then starting Thursday, January 3 we got more rain (from the North, go figure), with big, fast, hard winds (I assume Al Gore has an explanation).



The bridge and roads in and out of the property become impassable, not surprising as we got 7.29 inches from January 3 to 5 (I did the math, in less than 72 hours 75% of all of December, I'm still waiting for Al Gore to explain). I didn't know the details until the 6th as the rain was so intense I couldn't access our weather station on the internet – hence I wasn't really sure it was raining. Below, the way in, looking from the way out:



Even the brussels sprouts ended up underwater...



On Saturday we got more than rain, lightening and thunder - the house shook, and so did I (I even wanted to join the cats under the bed, but they wouldn't make room), followed by hail. We've had worse flooding, and we need the rain, but I really regret, this time of year, having a house with a metal roof and no ceilings.

When not dealing with the weather we are pruning. To keep costs down we're doing it in black and white.



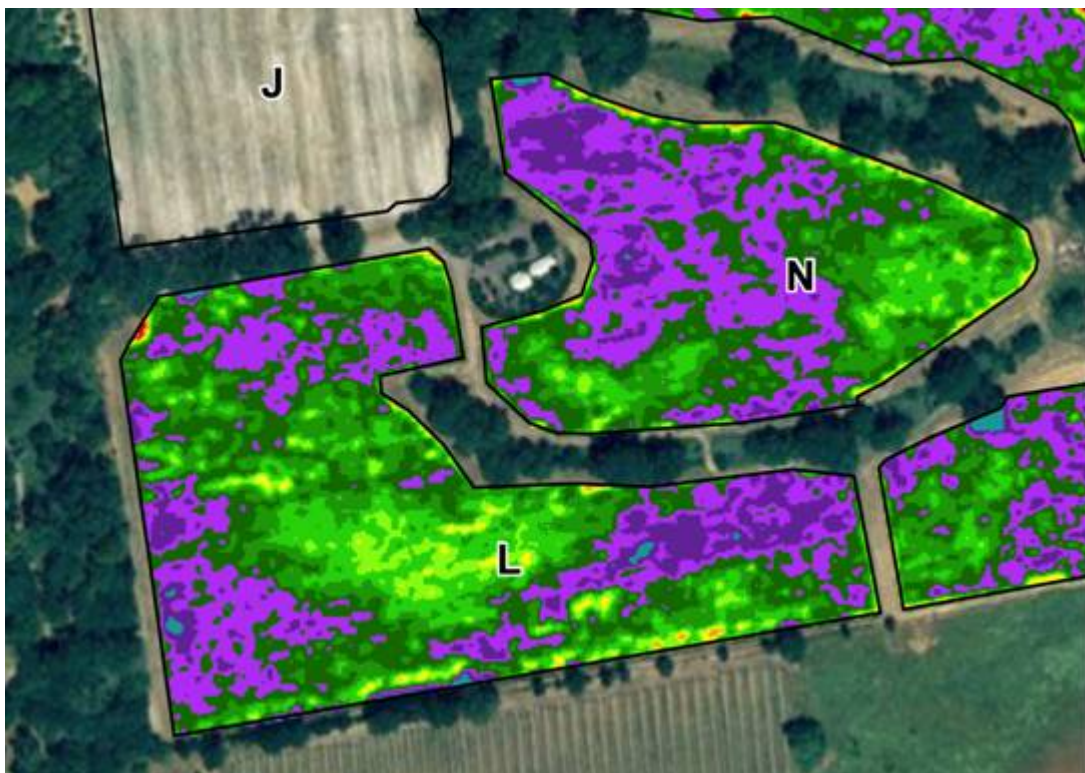
Look closely at the photo above; see the strength of the shoots? With strong shoots we can cut to two buds. Two buds means two shoots. Two shoots mean, obviously, more good, nay, great, grapes. We also can focus more on 'position,' i.e. trying to get buds closer to the cordon as well as better spacing between the shoots. This is the first year since 2005 we've had that luxury.

Focus on a Block - L

L Block is my favorite. I've even adopted a row, which I alone pruned and will sucker, and maybe even shoot position and leaf, but not pick, that would not be fair to the pickers. It's about 7.7 acres, planted in 1985 west of the corral. The 10-year average yield is about 3.5 tons to the acre (only 2.1 in 2004 and over 5 tons in 2005 – 2005 was clearly superior to 2004, so never conclude that size has a direct relation to flavor). The 'clone' is Old Wente (David Munksgard, the winemaker, loves O Block's Rued Selection). For me, Old Wente is complex yet subtle and elegant, which are the hall marks of the Corral Vineyard Chardonnays (in both '05 and '06 L made up 95% of the blend), but do need time on the cork.



As can be seen from the photo above, and the recent NDVI, below about two-thirds of L are 'long rows,' while the remaining third are 'short.' Curiously, there is a noticeable difference in the flavors, so we now pick them on different days and segregate the wines.



Like O, P, Q & M, L is on AXR rootstock, i.e. at risk. We tag those vines that are questionable. In 2007 we used blue tape, in 2008, pink. It can be sad.



It seems our regimen of 'green manure,' cover crop rich in legumes, which we then disc in, as well as plenty of water and 3-18-18 (N nitrogen, P phosphorus and K potassium) and other little tricks is slowing the advance of the phylloxera. Note I wrote slowing, not stopping, there are some vines out there with pink tape.

In the meantime, more storms are on the way, and when we can, we prune. In between, we co-exist with the Canadian Geese and try not to blame Canadians for the weather.



Post Script

I, like many, have goals, like; I'd like to see all known Vermeers (definitely 34, maybe 38, I'm probably half way there) and Caravaggios (probably about 89, maybe one third along the way). Another goal has been (and still is) to complete the Sunday New York Times crossword puzzle. On December 30th I completed my 520th consecutive puzzle in 49 minutes (shame on me for not knowing the lyrics to "Frosty the Snowman"). When I told my wife of this great accomplishment she asked if I'd got anything. The answer was obvious, "nothing," other than of course a vastly improved vocabulary and a mental data bank of useless trivia.

December 20, 2007



If the buzzards are taking it easy, it means it's pruning time. Okay, there's no actual link between when we prune and whether the buzzards aren't flying. Still, isn't it amazing how big buzzard feet are?

We started pruning on the 13th in P (Stoney Hill Chardonnay). Here's Victor at work, notice how high the position is - if possible, we'll try to get it down, mainly by leaving lower buds, but that isn't a priority.



Why we prune is easy, we want grapes, and grapes only grow on new wood. More new wood means more grapes. We also prune for quality and flavor. Take a cordon-pruned vine like the one below, half pruned:



I know it's hard to make out from the photo, but the goal is not a lot of new wood, it's the right new wood. So if we see a strong shoot and a strong position, we'll leave two buds (meaning we'll get two shoots out of that position and hopefully four clusters), if the shoot from last year is weak, then we leave only one bud (and only one shoot, but hopefully stronger than before), and if the position is weak on an old vine, we take out the position (no shoots, and no grapes, but the remaining shoots will be better off).

As with last year, we don't start pruning in a block without first discussing what the plans are for that block.



Above, are the guys in F Block; Clone 4 Chardonnay, great for sparkling, so we'd like to have more bearing wood, hence it's time to extend the cordons, but only when all of the right conditions are in place. The vine has to be balanced, that means if only one side has a decent shoot to work with, you can't extend. We also need to take into account the adjacent vines. My point being: it isn't easy. In G and K we're actually converting from Cane to Cordon, the vines are just too far apart (five feet) so by converting to cordon we can increase the amount of fruit-bearing-wood.

Below is the pruning order, based upon various factors, such as frost risk and shatter risk, which determine which blocks we can prune now, as compared to those we need to prune later.

IHV&R 2007-8 Pruning

Block	Acres	Frost Risk	Shatter Risk	Variety	Type	Score	Notes
Block P	4.8	0	0	1	2	3	Remove dead arms & weak positions. If phyloxera or PD present remove weak positions & make vine smaller, no more than one bud per shoot.
Block F	4.5	1	0	1	1	3	Balance, S's preferred. Only extend if clearly strong enough
Block N	4.9	0	0	2	1	3	Remove dead arms & weak positions. If phyloxera or PD present remove weak positions & make vine smaller, no more than one bud per shoot.
Block L	7.7	1	0	1	2	4	Remove dead arms & weak positions. If

							phyloxera or PD present remove weak positions & make vine smaller, no more than one bud per shoot.
							Remove dead arms & weak positions. If phyloxera or PD present remove weak positions & make vine smaller, no more than one bud per shoot.
Block O	5.2	1	0	1	2	4	Watch for crowding. If enough room rabbit ears okay.
C1	8.4	2	0	1	1	4	Watch for crowding. If enough room rabbit ears okay.
C3	6.3	1	0	1	2	4	Watch for crowding. If enough room rabbit ears okay.
C4	3.5	1	0	1	2	4	Watch for crowding. If enough room rabbit ears okay.
C5	0.9	1	0	1	2	4	Watch for crowding. If enough room rabbit ears okay.
C8	4.4	3	0	1	1	5	Watch for crowding. If enough room rabbit ears okay.
CA	6.0	1	0	2	1	4	See notes on topping
CF	1.8	1	0	2	1	4	See notes on topping
CB-E	14.1	1	0	1	2	4	If less than a pencil, 2 buds, otherwise see notes on topping
Block Q	2.5	0	1	2	2	5	Try to open up, 2 buds per position, big 12-14 positions, small 10 positions.
P2	4.9	1	1	2	2	6	Watch for crowding.
P6	5.0	1	1	2	2	6	Watch for crowding & weak shoots. Remove end cordons.
P7	5.4	1	1	2	2	6	Watch for crowding.
P9	0.7	2	1	2	1	6	Watch for crowding.
							Remove dead arms & weak positions. If phyloxera or PD present remove weak positions & make vine smaller, no more than one bud per shoot.
Block M	3.3	3	0	1	2	6	No extensions. Balanced S's preferred. If necessary only one bud
Block E	4.6	2	1	2	1	6	Converting to Cordon see notes
Block G	11.3	1	2	2	1	6	Converting to Cordon see notes
Block K	0.8	0	3	2	1	6	Still training. Do not extend cordons 2 years in a row, if do extend only three buds if strong. No bends.
Block I	6.5	0	3	2	1	6	Still training. Do not extend cordons 2 years in a row, if do extend only three buds if strong. No bends.
Block B South	5.2	2	2	2	1	7	Still training. Do not extend cordons 2 years in a row, if do extend only three buds if strong. No bends.
Block B North	7.5	3	2	2	1	8	Still training. Do not extend cordons 2 years in a row, if do extend only three buds if strong. No bends.
Total	130.1						

Here are the notes:

Converting to Cordon:

Possibilities, depending on the vine:

1. Cordon

2. Canes, no spurs (remove spurs when suckering)
3. 2 Canes, with spurs (leave spurs at suckering)

1. 1 Cane, 1 spur
2. 2 spurs.

To decide if okay to be cordon: Must have 2 strong "canes" with enough buds on both canes for 3 positions.

If still "cane pruned:"

- If thick enough but not strong enough, 3 spurs
- If good but only on one side (or one of the buds is either too high or too low), one cane and a spur
- If strong two 4 bud canes with a spur (if very strong 6 buds per cane), also looking for at least 1" between buds.

Above also applicable to vines in Ca & Cf ready for canes, if not then, in Ca & Cf, and Cb Cc, Cd & Ce, "topping:"

- If less than a pencil, weak or uneven trunk (i.e. kinks) down to 2 buds
- If no laterals top (need at least 2 buds 6" to 4" below fruit wire)
- If laterals leave up to three 1 bud spurs.
- If strong two 4 bud canes

Next: the most important tool we use. Pruning shears.



At Iron Horse we only use Felco Pruners. As they say at the Felco Store:

"Felco pruners will change your life. Felco pruners are world famous. Once you've tried a Felco pruner there is no going back. It will become a family heirloom. Smooth, tight action. Quality you can feel. Awesome cutting power and precision is in your control when you pick up one of these incredibly durable pruners."

You'd never know they're Swiss.

Most of the guys still prefer model 2,



I like using the model 8, if find it's easier to position the blade.



but recently moved to a model 7...



"A superbly designed ergonomic bypass Felco pruner for the professional. The Felco 7 has a rotating handle that revolves on its axis, allowing the fingers to move naturally, reducing the blisters and hand fatigue that so often accompany prolonged pruning work. This unique swivel action requires up to thirty percent less effort than conventional models and offers maximum comfort on continuous pruning. The swiveling handle may feel strange at first, but you'll quickly come to wonder how you ever lived without it."

Rest assured though, I still have my old model 8, it is, after all, a family heirloom.

December 5, 2007



First a quote: "Chardonnay may still be that most popular of wines, but it failed to make much of an impression this year. There were standouts: Bottles like the Iron Horse Rued Clone represent the very best of American wine." Jon Bonné, San Francisco Chronicle Wine Editor Sunday, December 2, 2007. Jon Bonné, is obviously a great guy.

The good news is that we've had some good frosts, the vines are truly shut down and the leaves have all fallen off (and are becoming soil). We're even getting some rain, and we got the olives in, not a lot, about .58 tons, so enough for home consumption.



The only things left to pick are the persimmons (which I think are best prepared by simply putting them in the freezer, then slicing off the top, grab a spoon and serve to someone who likes persimmons).



We've also been busy raising the canopy in P6, arguably our best Pinot Noir block. The problem is too much vigor, which we're trying to control with a different cover crop, but still may require hedging before spraying or otherwise doing any tractor work, like mowing. Hedging is something we try to avoid. So we got about 400 high-way posts and cut them in two (we rented the circular saw).



The cross arms were then bolted to the wooden posts and with added wire we can raise the canopy up another 18".



This is good, less need to hedge (which often results in laterals, we don't like laterals), higher and stronger shoots (this encourages more reproductive growth, i.e. grapes) and better light (more better flavors). Also, the block will be a lot easier to work.

Bein' Green At Iron Horse Vineyards

"It's not easy bein' green."
Kermit the Frog

These days there isn't anyone who doesn't claim some degree of greenness. Even Duke Energy CEO Jim Rogers is pushing conservation and caps on carbon emissions. The problem is that often trying to be green is like trying to keep up with the Joneses, there is always some one who will claim to be greener.

There are also many 'shades' of green. Consider the following conundrum: A Texas birdwatcher seeing a cat about to eat an endangered plover, shoots the cat, he then faces trial, but isn't convicted, whereupon some one shot at him. Ask a bird lover and he'll say the birdwatcher did the right thing, ask a cat lover and she'll say he did wrong, ask the birdwatcher was whomever shot at him wrong, and he'd probably agree.

Still, how about a more relevant wine related example: If we were in Bordeaux, and organic, and had to face 60 days of warm rain (which is what happened this spring) then what? The conditions were perfect for Downy Mildew. For the record, we use surfactants and certain other non-organic products, but we only had to make seven fungicide applications in 2007, only one of which involved sulfur. Instead of surfactants and strobilurin (I can't pronounce it until after at least one glass of Pinot Noir) fungicides, the organic solution is the 'Bordeaux Blend,' sulfur (S₂, pretty unpleasant to work with) and copper sulfate (CuSO₄ - which is quite toxic and very unpleasant to work with). Sulfur and copper sulfate work only on contact (unlike strobilurin fungicides, which offer longer protection), and without a surfactant to make them stick, are easily washed off by the rain. That means every time it rains a grower needs to make a new application - until such time as it's too muddy and the tractor gets stuck. All that tractor time is not good if one is trying to reduce one's carbon footprint. Worse, think of the kilos of sulfur (my guess is about 7.5 kilos per hectare per application) introduced into the soil and becoming sulfurous acid. Next, there's the toxic effect the copper sulfate has on beneficial microorganisms, combined with copper residue and sulfurous acid, the grower is, in effect, killing the soil. Plus, in the end they still lost, in some cases, as much as

90% of the 2007 crop. So I fail to see how being organic was a good option from the perspective of the environment. It is my understanding that biodynamic growers simply lost their crop.

That doesn't mean we at Iron Horse don't try to be 'green.' Our first rule is, we need grapes, no grapes no business. Second rule we want great grapes. Third rule, make great wine. Then, save the planet. We have reduced the number of vineyard applications to only those reasonably necessary (and stopped using really nasty stuff like Dithane), we are narrowing the strip when we strip spray (less Roundup, more micro-biological activity, we can do that using the yellow utility vehicle, or "Yuv Machine").



We engage in energy conservation wherever possible, such as air curtains, low usage bulbs and maintenance (you'd be amazed at the savings), and recycle as much as we can.

So what makes us greener than others? First we have 360 acres primarily covered with vegetation of some sort, most of which (about 160 acres) are planted with vines and cover crops (what's greener than plants?), so while maybe we release some CO₂ during fermentation, chances are, we are, possibly, carbon neutral and maybe even carbon negative, it being the bottles, packaging and travel that could skew the numbers the wrong way.

Another plus is that we live in Sonoma County, that means most, if not all of our electricity is from the Geysers, a geothermal field (i.e. a renewable resource) above the Alexander Valley, which produces 850 megawatts, or enough to power one million homes. The plants are able to operate because Santa Rosa and other participants in a sub-regional system (like nearby Sebastopol) recycle reclaimed tertiary treated waste water to enhance the existing steam reservoir, thereby extending the life of the steam field. Any other electricity we may be using which doesn't come from the Geysers, is most likely from relatively clean, and probably domestic sourced, natural gas powered plants. So it's good that one of our forklifts is battery powered, and whenever possible I use rechargeable batteries (just remember never to mix them with standard batteries).

Finally water. For our frost protection and irrigation needs, in addition to rain, we too use reclaimed tertiary treated waste water, only from Forestville. I feel pretty comfortable that the fine people of Forestville eat and drink right (with the current lack of rain I've been advocating they hold Oktoberfest at least once a month) and don't need hormone treatments or Viagra, most of the time. Seriously, we've had the water tested and it's cleaner than anything we used to get from the creek. More to the point it means we can leave water in the creek for the steelhead trout the Dept. of Fish & Game are trying to revive. We also make sure all of the storm water and 'grey' water produced by the winery also goes into our reservoir and properly reused. At times it can be a little

embarrassing, for example, when we had to submit a sample for a group storm water monitoring program, the 'discharge' started on a day we were cleaning Pinot Noir barrels. I believe we were the only ones to send in pink samples.

So, I think we're helping. In the meantime here's Chef Chris Greenwald cooking.



November 20, 2007



It's been a pretty mild autumn so far. Beautiful afternoons in the 70's, with just enough rain to get the cover crop going... so you'd think I'd be happy- well, heck no. Many of the vines, including the babies in H still have their leaves, and many of the leaves are green! This is not what I want.



We need at least two really good rainstorms and maybe a week of frosts before we can prune. The problem is a fungus called eutypa. It's bad. According to U.C. Davis: "Eutypa dieback delays shoot emergence in spring, and causes shunted shoots and leaves that are chlorotic, tattered, and cupped. Symptoms in the wood are characterized by darkened cankers that develop in the vascular tissue. The cankers are often wedge shaped (like a pie chart) in cross-cuts of affected cordons or trunks... Extensive infections lead to vine death." Applying boron to the cuts helps, but a few good storms before pruning is preferred. It is also better to prune later in the season when wounds heal faster, but this year we'll have an extra 22 acres (otherwise known as C Block) to prune, so we'll need to start sooner, which is why frost is good, as the vines will properly shut down and lose their leaves. I must be a farmer if I'm complaining about nice weather.

In the meantime other fungi are showing up – like amanita muscaria, commonly known as the fly agaric or fly amanita. Beautiful, but scary, I mean, where's the gnome?



From Wikipedia: "Fly agaric or fly amanita is a poisonous and psychoactive basidiomycete fungus. Though it is generally considered poisonous, amanita muscaria is otherwise famed for its hallucinogenic properties with its main psychoactive constituent being the compound muscimol. Fly agarics are known for the unpredictability of their effects." In other words, it could lead to enlightenment (I can think of a number of people, myself not included, who could use a hefty dose of enlightenment), or nothing, or enlightenment followed by amnesia, or death - and not a pleasant one at that: "In cases of serious poisoning it causes a delirium, characterized by bouts of marked agitation with confusion, hallucinations, and irritability followed by periods of central nervous system depression. Seizures and coma may also occur in severe poisonings. Effects typically appear after around 30 to 90 minutes and peak within three hours, but certain effects can last for a number of days." I don't think my family could handle the irritability (okay more irritability), that and I don't need enlightenment, as noted above, so I shall resist the temptation. It seems it's also good at attracting and killing flies, which, I suppose, at least, die in a state of fly satori.

In the meantime, what is doing in the vineyard? Well, 20 more soil pits. We started looking underground in P and Q, getting ready, sooner rather than later, to replant all of the blocks planted on AXR rootstock. Notice the one below in P Block is only three feet deep.



Normally a pit would be five feet down, but the backhoe hit rock. This, according to Daniel Roberts is perfect for Pinot Noir. So we are going to plant Pinot Noir. To me this is why we are doing what we are doing. That over the past 22 years P has been a fine Chardonnay block is not enough to stay that way. First the topography of the site says Pinot Noir (i.e. the rows should run North – South, which they are now, but we know that is best for Pinot and not Chardonnay) and now the land itself is telling us Pinot. Then there is the bad news, phylloxera. Look close enough (as is Paul Anamosa, PhD. below – by the way, only PhD's are allowed cool hats like Paul's) and you can see the evil, nasty critters:




Here's a close up, with a cleaner hand:



Okay, you still can't see them, but trust me they are there. Eventually there will be a lot more and no amount of attention or affection will keep the block alive. So we start now, first working out what to do and when, and then doing it, knowing that they end result will be wines that are that much better.

Finally Gail Davis from the county Ag Commissioner's Office came out to check on Train B. Note, "excellent cover crop." It's called 'precision farming.'



Certificate of Inspection

Vineyard Erosion & Sediment Control Ordinance

Sonoma County Agricultural Commissioner's Office
Lisa Corvira, Agricultural Commissioner/Sealer
133 Aviation Blvd., Suite 110
Santa Rosa, CA 95403
Phone (707) 565-2371 Fax (707) 565-3850

Project Address: 9796 Rose Station Rd

Owner: Iron Horse Ranch

Agent: same

Temporary Plan: ☐ Yes ☒ No

Final Plan: ☐ Yes ☒ No

Engineer Post-Construction Plan Compliance Letter: ☐ Yes ☒ No

Project Completed by Deadline (Nov 1st - New Development, Nov 15th - Replants): ☒ Yes ☐ No

Erosion & Sediment Control			
Requirements	Compliance		
	Yes	No	N/A
1 Cover Crop	X		
2 Mulch	X		
3 Fiber Rolls	X		
4 Silt Fencing			X
5 V-Ditches			X
6 Jute Netting			X
7 Swales		X	
8 Other:		X	
9 Other:			

Drainage			
Requirements	Compliance		
	Yes	No	N/A
10 Drain Pipes			X
11 Inlets			X
12 Outlets			X
13 Sediment Basin			X
14 Water Bars			X
15 Check Dams			X
16 Straw Bale Dikes	X		X
17 Other:			
18 Other:			

Remarks: (Include description of all non-compliances)

Excellent Cover Crop

PLAN CONFORMANCE: ☒ Yes ☐ No

If a "no" is checked above, you may be in violation of Article V of Chapter 30 of the Sonoma County Code (Sonoma County Vineyard Erosion and Sediment Control Ordinance). Any person who violates or knowingly permits violation of any provision of Article V of Chapter 30 of the Sonoma County Code shall be guilty of a misdemeanor, punishable by a fine not exceeding \$1,000, or by imprisonment for a term not exceeding six months, or by both. In addition, any person who violates or knowingly permits violation of any provision of Article V of Chapter 30 of the Sonoma County Code may be subject to civil penalties of up to \$1,000 per day for each day or portion thereof that the violation continues.

Received by: Laura Anderson 1687 Date: 11/19/07

Inspected by: Gail Davis thurs Date: 11/19/07

Original: County First copy: Inspector Second Copy: Person/Firm Inspected

November 8, 2007

It's been pretty quiet since harvest was over. While the mornings are cold by afternoon it's been close to warm and almost lazy. So, I've had time to take pictures - and any way, the last update was a bit wordy. (F.Y.I, there are six birds below, three cormorants and three egrets.)



In the vineyard we've been laying out Upper A, Lower A and Train Bin. In the photo below of Train House B you can see how 'precise' Victor's rows are, and without using GPS or lasers – the point being, 'precision farming' is not high-tech, it's hard work, that is, hard work by people other than me.



We're also getting ready for the winter rains, when and if they come.



So, from my point of view, not much is happening. We've got plenty of projects, like putting in the rest of the wire in C (about 200 miles worth in C alone) - which means we are finished with the actual replanting of C, fixing gaps in the deer fence, raising the canopy in P6, preparing a budget for replanting L, N, N, O, P & Q, do some soil pits in P & Q, but nothing particularly exciting. So just chomp at the bit until it's time to prune.

We did have some visiting former rugby players and now Irish Television rugby commentators who do travel items. I feel terrible that 550,000 Irish viewers will have been led to believe that at Iron Horse we approve of PT Cruisers. For the record, we don't.



And we also got to pour at Wine & Spirits Top 100 shindig in the Presidio. Here's Joy pouring Classic Vintage Brut (one of two of our wines in the Top 100, the other was our 2005 Native Yeast Chardonnay) for Andrea Immer:



But, as you can see from the shot I took for the Wine News, which wanted a picture of a winemaker “nosing the wine,” we’ve got time on our hands.



One reason is big changes in the disgorging cellar:



We may start with mid-20th century (maybe even earlier) technology:



But, with the new corker and cage-puter-oner we leap into the 21st Century. The main thing is we can now disgorge 30% more bottles a week than before, and possibly as much as 600 cases of sparkling a week. Even the gyro-palettes (riddling machines) now have a new brain and a 20% increase in capacity. Meaning, back to 'just in time' as opposed to slightly late. Granted we maybe modernizing, but, as is always the case, the 'Iron Horse' way. I don't know what we'd do without duct tape and string (the hose is filled with corks).

