

Powdery mildew is the most important disease pressure we face in Northern California

By the time you can see it, it is already probably too late to control it

Even just a few percent of fruit infection can destroy wine quality

It is always present in the environment, in the grapevine's bark, and in dormant buds

If you had an outbreak last year, you need to knock down the infection with lime sulfur or oil

Spraying sulfur every two weeks is the standard – last year that was probably insufficient



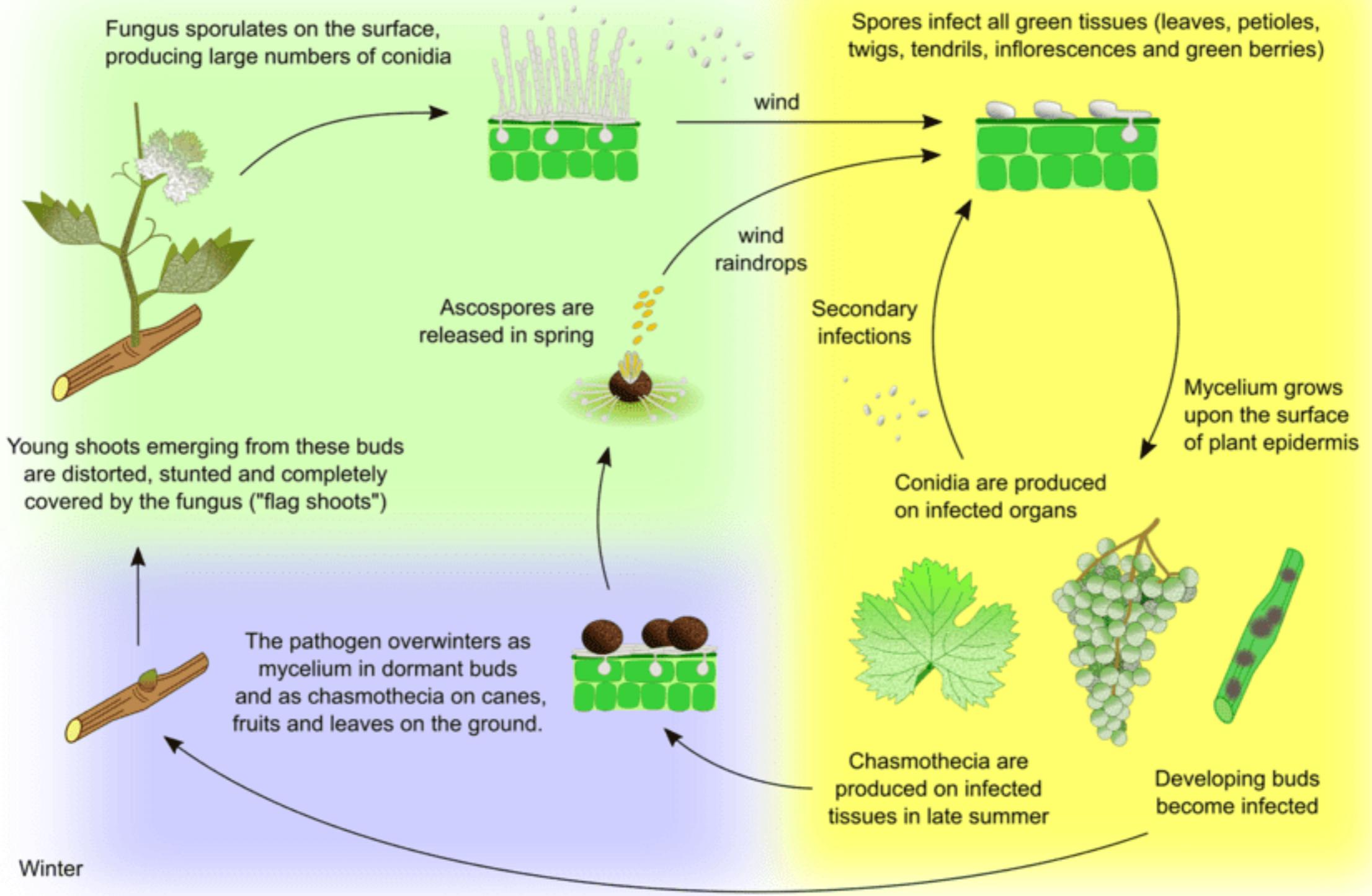
Let's talk mildew



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Spring

Summer



Let's talk mildew

Practical Management for regular mildew pressure

1. Do you need to obliterate last year's outbreak? Use lime sulfur or oil before bud break
 2. Sulfur is your core defense. First spray at 3-6" shoot length (yes there is organic certified sulfur and oil)
 3. Use an oil treatment early, but it must be 14 days after a sulfur application and the temperature should not get above 90F. Oil also is also challenging for vines and beneficial insect populations
 4. Mildew stops growing on berries above 12 brix, and above 90 degrees. BUT it can still grow on leaves and stems. Oil and sulfur can burn in these temperatures, so consider rotating a third control agent into the mix. Mildew control is much more complete when rotating sprays that use several modes of action
- * We winemakers do not like sulfur to be used near harvest time, and it can burn vines in high temperatures. Sulfur can also become trapped in bunches as berries expand and the bunches close, Petite Sirah, Pinot Noir, maybe Chardonnay or Merlot

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Best bet for cool, late-season high-pressure: Serenade or Sonata, both of which are bacillus base and organic certified

What the frac is FRAC? Fungicide Resistance Action Committee

These are late-season options that can be rotated in to increase effectiveness but none are organic

Table 1. Some alternative fungicides for controlling powdery mildew in grapes.

Fungicide	Frac Code	PHI (days)
Merivon Xemium	7 +11	14
Quintec	13	21
Topsin M	1	7
Torino	U6	3
Vivando	U8	14

Outbreak cleanup - try soaps or Kaligreen (baking soda) but most likely too late

Your first line of defense is shoot thing, followed by shade-side leafing

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Your first line of defense is shoot thing, followed by shade-side leafing

Followed by sulfur and oil and then possibly an additional pass for a total of maybe five treatments depending on vineyard location. Consider a last pass with a non-sulfur treatment

Now what about the Gubler-Thomas Powdery Mildew Index?

SPRAY INTERVALS BY FUNGICIDE GROUPS BASED ON DISEASE PRESSURE USING THE UC DAVIS POWDERY MILDEW RISK INDEX MODEL

Index	Disease pressure	Pathogen status	Suggested spray schedule			
			Biologicals ¹ and SARs ²	Sulfur	Demethylation-inhibitors (DMI) ³	Strobilurins and Quinolines ⁴
0-30	low	present	7- to 14-day interval	14- to 21-day interval	21-day interval or label interval	21-day interval or label interval
40-50	moderate	reproduces every 15 days	7-day interval	10- to 17-day interval	21-day interval	21-day interval
60 or above	high	reproduces every 5 days	use not recommended	7-day interval	10- to 14-day interval	14-day interval

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<https://napa.westernweathergroup.com/> or replace Napa with Sonoma or Lake

Powdery Mildew Stress Points - 2025

Daily Data

3/1/2025 - 10/1/2025

as of 1/18/26 2:09 PM PST



Date	Twomey Calistoga	Fotsch (Maple Lane)	Diamond Mtn (Schramsberg)	Diamond Mtn (McEachran)	St. Helena-North	Deer Park	St. Helena (NVV Office)	Tiara Fria (East St. Helena)	Rutherford Hill Estate	Rutherford-North (Mee Ln)	Rutherford (STS)	Oakville-NE (Ranch 88)	Silver Oak OV	Crossroads Ranch	To Kalon Remote (TKKE)	UC Oakville Research	To Kalon	To Kalon Remote (TKN5)	OV5 East
5/21/25	90	90	90	90	70	90	70	70	70	60	70	90	90	90	70	90	90	70	70
5/20/25	100	100	100	100	80	100	80	80	80	70	80	100	100	100	80	100	100	80	80
5/19/25	90	100	100	100	90	100	90	90	90	80	90	100	90	90	90	100	90	90	90
5/18/25	100	100	90	90	100	100	100	100	100	90	100	100	100	100	100	100	100	100	100
5/17/25	100	100	70	70	100	80	80	100	100	70	100	100	100	100	100	100	100	100	100
5/16/25	90	100	50	80	90	60	60	90	80	50	90	100	100	90	80	100	80	80	80
5/15/25	70	90	30	60	70	40	70	70	60	60	70	100	90	70	60	90	60	60	60
5/14/25	50	70	10	40	50	20	50	50	40	40	50	100	70	50	40	70	40	40	40
5/13/25	30	50	20	50	30	0	30	30	20	20	30	90	50	30	20	50	20	20	20
5/12/25	40	60	30	60	40	0	40	40	30	30	40	70	60	40	30	60	30	30	30
5/11/25	50	70	40	70	50	10	50	50	40	40	50	80	70	50	40	70	40	40	40
5/10/25	60	80	50	80	60	20	60	60	50	50	60	60	80	60	50	80	50	50	50
5/9/25	70	90	60	90	70	30	70	70	60	60	70	70	90	70	60	90	60	60	60
5/8/25	80	100	70	100	80	40	80	80	70	70	80	80	100	80	70	100	70	70	70
5/7/25	90	90	50	90	90	50	90	90	80	80	90	90	80	60	80	80	80	80	80
5/6/25	100	100	60	100	100	60	100	100	90	90	100	100	90	70	90	90	90	90	90
5/5/25	100	100	0	80	100	0	100	100	70	70	90	80	70	50	70	70	70	70	70
5/4/25	90	80	0	60	80	0	100	90	50	50	70	90	50	30	50	50	50	50	50
5/3/25	70	60	0	40	60	0	80	70	30	30	50	70	30	10	30	30	30	30	30
5/2/25	80	70	0	50	70	0	90	80	40	40	60	50	40	20	40	40	40	40	40
5/1/25	90	80	0	60	50	0	100	90	50	50	70	60	50	30	50	50	50	50	50
4/30/25	70	60	0	0	30	0	80	100	60	60	80	0	60	40	60	60	60	60	60
4/29/25	50	0	0	0	40	0	60	80	40	40	60	0	40	20	40	40	40	40	40

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There are lots of resources online so doing a little research is highly encouraged. But here is a quick recap:

- We all have mildew, we are just controlling and suppressing it
- First spray at 3-6" cane length, this year you might need to use lime sulfur before the vines are growing reset the overwintering population
- Mildew doesn't like wind or sunlight, so prompt suckering and shoot thinning at 1' cane length helps suppress it and means better spray penetration. Nearby trees that shade vines are an extra pressure point
- Never push past 14 days between spray intervals, 10 if it is high pressure
- Check leaves and berries frequently for white spots, grey dots or powder, and a white mushroom/stale white pepper smell. If you see that, then you probably need an eradicant. **CUT OFF ALL INFECTED FRUIT!!!**
- Early careful timing and prompt canopy work means doing less later

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