Plenty of downy out there and likely to be more soon after last week’s meteorological festivities. There are a number of spray materials available to help keep this disease at bay for the remainder of the season, here’s a quick reminder of some of their basic characteristics.

CAPTAN. It works well, doesn’t require a second mortgage to purchase, never has and probably never will have resistance issues. It will also provide good control of some major warm weather late season rots (bitter rot, ripe rot) if those are a potential issue (bitter rot shows up in warm, wet seasons on Long Island, especially on Chardonnay). But you know the downside: 3-day REI (check the label, a few products still have 4-day), it’s a no-no for juice grape processors, some winemakers have concerns about late season use, incompatibility with oils. Strictly a protectant, no post-infection activity, and more subject to wash-off than systemic and locally systemic compounds.

COPPER. The original DM fungicide, and it still works. Will also provide some late season control of foliar powdery mildew, especially on cultivars that are only moderately susceptible (e.g., Concord). Lots of formulations on the market, some more pleasant to work with than others. Quite a range of label rates, with some newer low-rate products available. Not too many independent verification of some of the claims being made for their efficacy but that should start changing soon. You know the positives: effective, some OMRI-certified products available, relatively economical. Negatives include the potential or likelihood of injury on some cultivars; some winemaker concerns about late season residues; the need to avoid acidified spray water; indefinite persistence in the soil. Strictly a protectant, no post-infection activity, subject to wash-off.

PHOSPHOROUS ACID PRODUCTS. We’ve talked about these for years, no need to rehash it to death. Remember, limited protective activity, significant post-infection activity, which is boosted by back-to-back applications and not skimping on the rate. I do hear more anecdotal reports than I’d like to about disappointing performance, not sure how much of that is due to unrealistic expectations or something more worrisome.

As pointed out on several occasions, these are real fungicides (despite how some of them are marketed) and the DM organism can develop a “quantitative” resistance to them after repeated use, as we’ve encountered with the DMI (sterol inhibitor) fungicides and powdery mildew. This means that, over time, they’ll provide progressively less control unless we keep raising the rate or substituting a more active member of the class. We’ve been able to do the latter with the DMIs (remember when we only had Bayleton and Rubigan?), but phos acid is phos acid, there’s really only one form of the truly active component in all of the products out there. And not only is there no option to substitute a more active form, but there’s a limit as to how high we can raise the rate due to the potential for plant injury (and cost). So if we beat these materials into the ground, that’s it.
Do not add these products to every spray tank during the summer if you want to maintain their efficacy. There’s no magic number of “safe” applications per year, but three is a nice round number, with no more than two back-to-back before switching to something else.

PRESIDIO. Another relatively new product unrelated to anything else on the market for grapes. It has given us excellent results in a couple of trials and appears to have some significant post-infection and antispore activity in addition to protective activity, although these are not well characterized. It’s not cheap. Resists wash-off, 21-day PHI.

RANMAN. Relatively new, it’s the only product used on grapes that’s in this group of chemicals (Group 21). Has given good results in our trials, appears to be strongest in a protective mode and has performed better on 14-day spray intervals when mixed with a phosphorous acid product, which provides complimentary post-infection activity. Should resist wash-off, 30-day PHI.

REVUS (and REVUS TOP). I’ve consistently gotten very good results with this compound in my trials. It’s a “locally systemic” material that’s absorbed by the plant tissues (hence, resists wash-off) and should have at least some post-infection activity, but that does not appear to be its strength. Rather, indications are that it’s stronger in the protective mode, although its physical mode of action is not very well characterized. 14-day PHI. Not related to any other product currently marketed in NY, although it is in the same “Group 40” as one of the components of the new product, Zampro (labeled in most states other than NY, maybe next year here).

RIDOMIL GOLD COPPER. The biggest weapon in the arsenal (and priced accordingly). Provides significant protective, post-infection, antispore, and even some eradicative activity. Also has significant vapor phase activity for redistributing the material to unsprayed tissues as a gas, and it moves through the plant systemically. Which does NOT mean that you can get away with applying it sloppily, but these properties make it more forgiving of applications that are anything less than perfect, should anyone ever need to deal with such a situation. Wash-off is not an issue.

Ridomil is at very high risk for resistance development. Using it to “put out fires” is a good way to hasten this process and lose a unique tool. I wouldn’t recommend using it to try to rescue a full-blown disaster (and it won’t, anyway), but if you see more downy than you’re comfortable with this time of year and feel like it has a chance of getting away from you unless you hit it hard, there’s nothing better. However, if you’re going to use the product this way, use it once per season to get things under control, then switch to something else. You won’t go to heck if you use it twice, but the more you do this, the greater the risk. We really want to maintain this control option into the future, so resist the temptation to burn it out. Remember, there’s a 42-day PHI.

“STROBILURINS” (Group 11; Abound/Quadris Top, Pristine, Reason). I put “strobilurins” in quotes because Reason is in this group because it has the same biochemical mode of action and resistance risks, even though it’s not a true strobie. As mentioned on other occasions, these materials largely working against downy in some states to our south several years ago due to resistance development. We’ve managed to dodge that bullet to a great extent in
NY, probably because we started severely limiting their use after the powdery resistance problems in 2002 (a dozen years ago!). But it’s probably a matter of when we’ll hit the wall with them, not if.

Strobie resistance can come on suddenly and intensively in a year of high disease pressure (this one qualifies). These can be great products without resistance, but if they don’t work then they don’t work. If you’ve been using them conservatively (no more than twice per year) and they’ve been doing a good job, great. But keep a close eye out, and if it looks like the first application of one of ‘em didn’t do much, don’t rely on a second one.