

## Sour Notes in the Garden Chorus

Were I given to complexes, I would surely have a monumental one after studying the exquisite photographs in garden magazines. Never is a Sarah Bernhardt peony caught with a bowed, rain-lashed head; never is a sturdy lily stalk seen decapitated by a visiting deer's casual munching. Nor is a pictured old rose caught draped in mildew!

Had I a camera one picture would show stalwart clumps of daylily with each stalk severed mid-length. Daylilies do not recover from such an indignity until the following year. I have used the foul-smelling "Liquid Fence" with some success, but its application requires the same degree of dedication as medications.

Echinaceas and phlox were on the menu for last night's buffet but they will rally, breaking into growth below the leader, even if later and smaller blooms result. That is good. The deer trail through the border finding plants hidden by an explosion of gaura, coreopsis, and lychnis seedlings. They may feast on roses and hosta but leave ferns, rudbeckia, weeds, daisies, kniphofia and geraniums. There is much to be thankful for.

Rose gardeners fend off rust and the fungi-caused diseases of black spot, powdery mildew, and downy mildew partly by planting resistant species and partly by strict sanitation, not allowing spores to winter over in rubbish under the plants and avoiding watering the foliage or watering in the evening.

One problem in cool springs may be downy mildew, long ago and far away confined to roses grown in greenhouses where it was easily defeated by raising the temperature and lowering the humidity. Outdoors it is bad news. It begins on the underside of newer foliage, often shows red-purple or dark brown spots on leaves or canes, and ends with leaf-drop. A lens is needed to actually see downy mildew but we are familiar with the powdery mildew that makes the plant look as if it had been dusted with baby powder. Younger leaves may crinkle and turn white.

Powdery mildew appears spring and fall when nights are cool, days sunny, and humidity high. The spores don't need moisture once they land and prefer dry leaves so a strong spray of water can wash them off. It can be contained by pruning crowded roses in July to improve air circulation. With ramblers, removing the old wood is a preventive. A spray of baking soda and water is effective, safe and cheap, 1 tablespoon to a gallon. You can add a bit of soap to help it stick. Old plants may experience powdery mildew if they become too shaded. Small problems indeed in a month when just to have a garden is bliss.

### READ IT AND WORRY

A friend lent me "Unquenchable – America's water crisis and what to do about it" by Robert Glennon. It is one of the latest books in decades of fine studies written in an effort to awaken us to the folly of our ways. Fascinating all of them but there is something in our collective psyche that will not permit us to face unpleasant facts. We are so wonderfully ingenious, we think: we will find the water we need by flooding the Grand Canyon, lassoing icebergs to haul to San Diego, seeding clouds with silver iodide from planes.

When we say, “we put a man on the moon” as the paradigm for solving the water crisis, we forget that space was totally new with the challenge of new problems. With water, it is all old; we are addicted to maintaining our disastrous ‘status quo because we think we know more than we do.

One of the many stories in this book tells of the desalting plant in Yuma, Arizona. This largest ever \$250 million desalination facility was intended to reduce salt content in the Colorado River water that the US delivers to Mexico under a 1944 treaty. After being under construction for 20 years it started up in 1992 but closed 8 months later due to design flaws. The water continued its southward path where it created a needed wetland important to migrating birds.

In 2007 after more money and a year of work the plant restarted using newer technology in desalinization. On the site is the only reverse osmosis testing facility in the country. The ramifications of these solutions are endless but thousands of large and small energy intensive plants throughout the world are striving to create fresh water from salt. They succeed to a degree but so far the only constant has been bankruptcy.

A more promising solution to water shortages is re-use, recycling, cleaning up rivers, limiting pollution in the first place, state of the art treatment plants, and avoiding waste. No solution will be easy, nor inexpensive.