Rose downy mildew has become a serious problem, causing significant losses to growers almost every year. The disease has been found in nearly every state across the US (and Canadian provinces), although it does not occur every year due to weather variation.

**SYMPTOMS:**
The most common symptom has been angular, tan spots with a very small amount of white crystalline sporulation on the underside of a leaf. On the East Coast, purple-brown angular spots appear on the upper leaf surface. Under moist conditions, leaves turn yellow and severe leaf drop occurs. A white downy growth may occur on leaf undersides, but usually cannot be seen without a microscope. Under drier conditions, leaf spots appear as brown burned areas, resembling spray damage. Reddish streaks or sunken cankers can also occur on rose canes. Cankers can also be caused by other pathogens like Botrytis and Coniothyrium, so having a lab diagnosis is suggested.

**HOW TO CONTROL:**
Downy mildew weather is cool to warm, humid and rainy—not hot and dry. Fans or wind easily move spores from plant to plant but are your best allies in preventing downy mildew outbreaks since they improve air circulation around plants. Six hours of constant leaf wetness is enough for spores of many downy mildew pathogens to germinate and infect leaves.

It is suggested that roses are watered whenever leaves will dry quickly to ensure that there is no wet foliage at night. Early detection is the only way to control downy mildew. Scout all plants for symptoms at least once a week and preferably every 2–3 days. Roses should be walked/scouted as often as possible during periods of potential infection, which are cloudy, cool periods between March and June and September and October. This disease can spread very quickly if not addressed immediately.

**These five steps should be taken when growing garden roses:**
1. Destroy rose debris from previous crops—spores can over-winter in leaves and canes.
2. To protect them from infection, isolate new shipments away from other plants.
3. Space plants to allow rapid drying of leaves. If the plants are too close and the humidity increases, downy mildew and other disease may appear.
4. Water early in the day to promote the fastest possible drying.
5. Apply preventative fungicides.

**FUNGICIDE ROTATION:**
1. Rampart 64oz plus Protect DF 1lb/100gal
2. Orvego 12oz/100gal
3. Segovis 2oz/100gal
4. Pageant 16oz/100gal
5. Segway 3oz plus Affirm 8oz/100

- West Grove location sprays every 7 days mid-February through November.
- This rotation targets Downy Mildew, Powdery Mildew and Black Spot.
- **Curative Downy Mildew spray:** Subdue maxx 1oz, plus Adorn 3oz

*The information provided above was obtained from trials conducted in Southeastern Pennsylvania and it is provided only as a reference. Star® Roses and Plants does not warrant the exact results to be achieved as this can vary depending upon your location and cultural practices.*