

## Onion Foliar Diseases: Post Harvest Cultural Recommendations.

Ana M. Pastrana

Plant Pathology Advisor - Imperial, San Diego, and Riverside

ampastranaleon@ucanr.edu

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### Onion Foliar Diseases:

During the 2023-24 crop season, several onion growers in the Imperial, Palo Verde, and Coachella Valleys faced various foliar diseases, including downy mildew, Stemphylium leaf blight, purple blotch, and occasionally powdery mildew. These pathogens can spread throughout production areas each year, negatively impacting nearby and distant producers. To address these challenges, implementing cultural management methods becomes crucial. Here, you'll find some cultural methods aimed at reducing the inoculum levels of these pathogens in your fields.

#### RESIDUE MANAGEMENT:

**Sanitation plays a crucial role in disease prevention!**

While spores from these diseases can be carried by equipment and insects, wind is the primary mode of dispersal. **Proper sanitation of onion debris is crucial.** It's essential to:

- Incorporate this material into the soil **immediately after harvest** and well ahead of planting the next crop.
- Ensuring that **no exposed plant debris remain in the growing region** at the time of next planting is imperative.

#### CROP ROTATION:

- To enhance the effectiveness of your rotations, strive for a **three- or four-year cycle** excluding all allium crops. Furthermore, take into account neighboring fields.
- **Manage wild and volunteer alliums** in nearby areas. These plants can act as reservoirs for diseases during non-cropping years, impacting the success of your rotations.

#### WEED MANAGEMENT:

Considering the wide range of hosts these pathogens can affect, it is advisable to implement management practices to **control weeds within and around onion fields.**

#### SOIL SOLARIZATION

This method, originating in the mid-1970s, utilizes heat to control pests in field soil. Early 20th-century practices, like mid-summer cultivation in California's Imperial Valley, highlighted soil exposure to high temperatures for pest control. Today, modern solarization techniques employ plastic film mulch to trap solar energy. Recognized by USDA Organic standards and other certifications, it's vital for growers in pest-prone areas or those dealing with diseased plant debris, as it can greatly