

Watermelon Spray Guide for 2016

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Three major diseases that affect watermelon leaves in the southeastern United States



Gummy stem blight is large, round, target-shaped spots on the edges of leaves and cankers on the main stem. The best fungicides are Luna Experience, Switch, Inspire Super, or tebuconazole.



Powdery mildew is yellow spots on the top of leaves and white powdery mildew on the bottom. The best fungicides are Torino, Quintec, Luna Experience, and Procure.



Downy mildew starts as dark irregular spots that spread quickly. Diseased leaves curl slightly. If seen, spray immediately with Ranman, followed by Gavel the next week.

Step-by-Step Guide to Spraying

1. **Start spraying when vines start to run**, no later than the first (male) blooms open.
2. From vine run until mid-May, spray every 10 days.
3. After mid-May or when powdery and downy mildew typically show up, **spray every week through harvest regardless of the weather.**
4. **Do not stop spraying until one week before the final pick.** Downy or powdery mildew can attack any time a crop goes more than a week without a fungicide

- Chlorothalonil and mancozeb protect against gummy stem blight, downy mildew, and anthracnose; chlorothalonil also protects against powdery mildew. These two fungicides are the backbone of the spray program.
- Rotate systemic fungicides, like tebuconazole, to reduce the risk of fungicide resistance. Rotation is built into the spray programs on page 2.
- Dry weather limits gummy stem blight but favors powdery mildew; dry weather does not stop downy mildew or anthracnose when they are already in a field.
- Apply fungicides before a predicted rain rather than after. As long as the fungicide dries on the leaves before rain starts, it will protect plants.

Spray Programs

- The spring program is designed to manage bacterial fruit blotch, bacterial leaf spots, gummy stem blight, powdery mildew, anthracnose, and downy mildew on watermelon. The fall program is designed to manage gummy stem blight, downy mildew, and anthracnose.

How to Get the Most Out of Spraying

- Crop rotation for three years is an important start to controlling gummy stem blight.

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- If leaves stay wet for 48 hours, apply Inspire Super or Luna Experience (before harvest) or Switch (during harvest) to protect against gummy stem blight.
- Tebuconazole, Inspire Super, and Luna Experience have a 7-day pre-harvest interval (PHI) on watermelon. These fungicides should not be sprayed

during the harvest period (weeks 6 to 8 in the spray program). When harvest begins, skip ahead to spray #6. Mancozeb and Gavel have a 5-day PHI.

See the current edition of the Southeastern U.S. Vegetable Crop Handbook for more information:
<http://www.thepacker.com/guides/Pest-production-guides>

Spray	Fungicide Program for Spring Watermelon*	Comments on Spring Program	Fungicide Program for Fall Watermelon*
1 (vine run)	mancozeb + fixed copper	For prevention of bacterial leaf spots and fruit blotch.	chlorothalonil or Catamaran
2	chlorothalonil or Catamaran	Do not tank mix copper with chlorothalonil or Catamaran.	tebuconazole + Ranman
3	tebuconazole	If fruit blotch or bacterial leaf spots are a concern, add fixed copper.	chlorothalonil
4	chlorothalonil	If fruit blotch or bacterial leaf spots are a concern, substitute mancozeb + fixed copper.	mancozeb
5a**	mancozeb + <u>Quintec</u>	The protectant switches from chlorothalonil to mancozeb to avoid injury to fruit on hot, sunny days. Use <u>Luna Experience</u> if gummy stem blight is present.	Gavel
5b**	<u>Luna Experience</u>		
6	Gavel	Note 5-day PHI.	Quadris Top
7a**	mancozeb + <u>Torino</u> (or mancozeb + <u>Procure</u>)	Note 5-day PHI on mancozeb. Use Switch if gummy stem blight is present.	mancozeb + Ranman
7b**	Switch		
8	mancozeb + Ranman	If downy mildew is seen earlier in the season, apply Ranman as soon as possible.	chlorothalonil
9-11	If more sprays are needed after spray 8 to extend the season, apply sprays 6 to 8 again.		

*Fungicides for downy mildew are in bold. Fungicides for powdery mildew are underlined.

**Option "a" is a lower cost treatment that may be less effective. Option "b" is a more expensive fungicide that also is more effective when disease is already in the field or when weather conditions favor disease getting worse.

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