

## Watermelon Spray Guide for 2012

Spray recommendations for watermelon are based on the fact that “It is easier to prevent disease than to cure it.”

**1) Crop Rotation** is very important for a good start to controlling gummy stem blight and anthracnose. Growing watermelon, cantaloupe, or cucumber only once every 3 years in a field will minimize problems with these diseases. Never double-crop cucurbits on the same plastic.

**2) Spray Early.** The first spray should be put on when vines start to run or no later than when the first blooms (the male ones) open. This is the most important spray of the season!

**3) Rotate Systemic Fungicides.** Do not make more than three applications of fungicides from FRAC Group 3 per season to reduce the risk of resistance. For rates, see the fungicide labels and the current edition of the *Southeastern U.S. Vegetable Crop Handbook*:  
[www.thegrower.com/south-east-vegetable-guide](http://www.thegrower.com/south-east-vegetable-guide).

**4) Choose the right fungicides based on disease pressure.** Watermelon growers should watch for four common diseases and pick fungicides based on which disease will most likely appear.



**Gummy stem blight** often starts on old leaves near the crowns of plants inside the rows. Leaf spots are dark brown and start on leaf edges. The gummy stem blight fungus in South Carolina and other states is resistant to

strobilurins (Group 11 fungicides), Topsin M, and Pristine. Growers should use tebuconazole (Group 3), Inspire Super (Groups 3 + 9), or Switch (Groups 9 + 12) to manage gummy stem blight. **However, do not make more than three applications of Group 3 fungicides per season to reduce the risk of resistance.**

**Powdery mildew** appears during dry spells in June as yellow or white powdery spots on the top or bottom of leaves. Often, leaves may yellow from powdery mildew growing on the bottom side of the leaf. Cucurbit powdery mildew in some areas has become resistant to



fungicides in Groups 1, 3, and 11. The recommended fungicides for powdery mildew are Quintec, Procure, or Switch. Quintec and Switch must be rotated after two applications.



Leaf spots of **anthracnose** are smaller and more angular (pointed) than gummy stem blight spots. Look for ½ to 1-inch-long narrow, reddish brown spots on the vines. Anthracnose fruit rot starts as round, sunken spots that usually are found on the belly of the fruit. Cabrio is the best fungicide to spray for anthracnose; Topsin M also controls it.

**5) Spray Schedules.** There are two basic types of fungicides: protectant or contact fungicides (such as chlorothalonil and mancozeb) and systemic fungicides that are absorbed by leaves (most new fungicides). Use a protectant for the first several sprays. Use systemic fungicides mid- to late season, when their ability to get into leaves is useful during rainy periods.

### Spray Schedule #1 for Spring Watermelon to Control Gummy Stem Blight, Powdery Mildew, and Anthracnose

Spray	Fungicide*
1 (vine run)	chlorothalonil or Catamaran
2	chlorothalonil or Catamaran**
3	<b>tebuconazole</b>
4	chlorothalonil or Catamaran
5	<b>Inspire Super</b>
6	mancozeb + <b>Cabrio</b>
7	<b>Switch</b> (or <b>tebuconazole</b> )
8	mancozeb + Quintec or <b>Procure</b>

\*Systemic fungicides are in **bold** type.

\*\*May use mancozeb + copper to protect against bacterial fruit blotch in week 2.

After the first protectant spray at vine run, match the spray schedule to fit general weather conditions.

- In spring, if it is dry, spray every 10 to 14 days.
- During a wet period, spray every 5 to 7 days. The chlorothalonil label limits the spray interval to 7 days for watermelon.
- If leaves stay wet for 48 hours, use a systemic fungicide for the next spray.
- In the fall, spray every 7 days, starting at vine run, and shorten the spray interval to 5 days during rainy periods.
- 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 from new infections.

### Spray Schedule #2 for Spring Watermelon to Control Powdery Mildew, Gummy Stem Blight, and Anthracnose

Spray	Fungicide*
1 (vine run)	Catamaran
2	<b>tebuconazole</b>
3	Catamaran
4	<b>Inspire Super</b>
5	mancozeb + Quintec
6	<b>Switch (or tebuconazole)</b>
7	mancozeb + <b>Cabrio</b>
8	mancozeb + <b>Procure</b>

\*Systemic fungicides are in **bold** type.



**Bacterial fruit blotch** often appears first as dark, greasy blotches on nearly ripe fruit. Leaf symptoms, if they are present, are small irregular spots. Fruit blotch often can be prevented with 3 sprays of copper hydroxide. These can be mixed with fungicides other than chlorothalonil and must be applied 2 weeks before female flowers open, at bloom, and 2 weeks after bloom. Applications later than this will be too late to protect early fruit. Additional applications can be made to protect late-season fruit.

### Spray Schedule #3 for Spring Watermelon to Control Bacterial Fruit Blotch and Other Diseases

Spray	Fungicide*
1 (vine run)	mancozeb + copper**
2	mancozeb + copper
3	<b>tebuconazole</b> + copper
4	mancozeb + copper
5	<b>Inspire Super</b> + copper
6	mancozeb + <b>Cabrio</b> + copper
7	<b>Switch (or tebuconazole)</b>
8	mancozeb + Quintec or <b>Procure</b>

\*Systemic fungicides are in **bold** type.

\*\*Do not mix copper with chlorothalonil. When spraying copper weekly, use 1 pound per acre.



**Downy mildew** can infect watermelon in the fall. It spreads very quickly after infection on unsprayed crops. Chlorothalonil and mancozeb provide some protection from initial infection, but they are not enough to stop downy mildew once it starts in a field. Cucurbit downy mildew is resistant to Ridomil Gold and strobilurin (Group 11) fungicides. Ranman and Previcur Flex are included in Spray Schedule #4 to prevent downy mildew. If downy mildew is found, switch to Presidio rotated with Ranman on a weekly schedule. You must tank mix a protectant with Presidio and Ranman.

### Spray Schedule #4 for Fall Watermelon to Control Downy Mildew, Gummy Stem Blight, and Other Diseases

Week	Fungicide*
1 (vine run)	chlorothalonil or Catamaran
2	<b>tebuconazole</b>
3	chlorothalonil + <b>Ranman</b>
4	<b>Switch (or Inspire Super)</b>
5	mancozeb + <b>Previcur Flex</b>
6	<b>Inspire Super (or tebuconazole)</b>
7	mancozeb + <b>Ranman</b>
8	chlorothalonil or Catamaran

\*Systemic fungicides are in **bold** type.

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