

# SPRAY FORMULATIONS

## Products for Larger Rose Gardens

<u>Problem / Solution</u>	<u>Toxicity</u>	<u>Amount/Gal</u>	<u>Notes</u>	<u>MOA*</u>
<b><u>Blackspot and Powdery Mildew</u></b>				
Aliette	Caution	1 1/2 Tablespoons	Treatment for Downy Mildew	6
Banner Maxx (14.3%)	Warning	1/3 teaspoon	Systemic action for 14-21 days	1
Strobe 50 WG	Caution	1/4 to 1/2 teaspoon	Broad spectrum fungicide	5
Honor Guard PPZ	Warning	1/3 teaspoon	Generic form of Banner Maxx with same properties	1
Propiconazole 14.3	Caution	1/3 to 2/3 teaspoon	Generic form of Banner Maxx with same properties	1
Cleary's 3336F Plus	Caution	1 teaspoon	Systemic action for 7-10 days	2
OHP 6672 50% WP	Caution	1 teaspoon	Wettable powder generic form of Cleary's 3336F with same properties	2
Compass (50 WDG)	Caution	1/4 teaspoon	Translaminar action for 14 days, alternate with another product	5
Daconil Ultrex (WDG)	Danger	1/2 Tablespoon	May burn foliage when used in hot weather	6

### **Blackspot**

Dithane 75DF	Caution	1/2 teaspoon	Also somewhat effective for Botrytis	6
Dithane M45 (wettable powder)	Caution	1 1/2 Tablespoons	Helps prevent and eradicate blackspot with little residue on foliage	6
Dithane M75 (wettable powder)	Caution	1 Tablespoon	Helps prevent and eradicate blackspot with little residue on foliage	6
Phyton 27	Danger	1/2 Tablespoon	Systemic (Use 1 Tablespoon/gallon for therapeutic action)	6
Manzate	Caution	1 Tablespoon	Can be used at 3 day interval to eliminate disease	6

### **Severe Powdery Mildew**

Rubigan EC	Warning	1/4 teaspoon	For severe case use 1/2 teaspoon/gallon every 14 days	1
E-Rase Concentrate (Jojoba Oil)	Caution	4 teaspoons	Will remove powdery mildew from foliage, will not control	6

### **Botrytis (blooms develop brown edges and appear to rot, primarily in spring and fall)**

Chipco 26019	Caution	1 to 2 teaspoons	Use 1 teaspoon to prevent and 2 teaspoons to eradicate	3
Decree 50% WDG	Warning	1 teaspoon	Use every 14 days during cool, wet weather	1

### **Insects (Use only when necessary)**

Conserve SC	Caution	1/2 teaspoon	Excellent for thrips, locally systemic	4
Kontos	Caution	1/8 - 1/4 teaspoon	Substitute for Merit with Spider Mite control. Systemic & translaminar	6
Merit 75 WP	Caution	1/8 teaspoon	Effective for aphids, whiteflies, & Japanese Beetles on foliage	4
Zenith 75 WSP	Caution	1/8 teaspoon	Generic form of Merit with same properties	4
Orthene (97% WSP)	Caution	1/2 to 1 teaspoon	(Powder) Use as needed to eliminate thrips, aphids, etc.	1
Sevin (over the counter)	Caution	4 teaspoons	Japanese Beetles, mix with Tempo to prevent resistance by other insects	1
Talstar Flowable or Bifen I/T	Caution	1/2 Tablespoon	Contact miticide and insecticide	2
Tempo	Caution	1/8 teaspoon	Effective for aphids, thrips, Japanese Beetles	2

### **Spider Mites**

Avid	Warning	1/4 teaspoon	Translaminar, kills adult mites only, use 1/2 tea/gal for severe case	3
Lucid	Warning	1/4 teaspoon	Generic form of Avid with same properties	3
Minx 2	Caution	1/4 teaspoon	Generic form of Avid with same properties	3
TetraSan	Caution	1/2 teaspoon	Translaminar that kills eggs and nymphs, combine with Avid	5
Forbid 4F	Caution	1/4 teaspoon	Miticide with translaminar activity for all life stages.	6

### **Spray Adjuvants**

Beaty WSP Surfactant	Warning	1/8 teaspoon	Penetrant/wetter/spreader for systemic and translaminar pesticides
Cadence	Caution	1/2 teaspoon	Penetrant/wetter/spreader for systemic and translaminar pesticides
Binde	Caution	1/2 - 1 teaspoon	Extender/sticker/spreader for contact pesticides

### **Weights and Measures**

<u>Equivalents</u>	<u>Definitions</u>
3 tsp = 1 TBSP	TBSP = Tablespoon
2 TBSP = 1 Fluid Oz.	tsp = teaspoon
4 TBSP = 12 tsp = 1/4 Cup = 2 fluid oz.	Gal = Gallon
1 Cup = 16 TBSP = 8 Fluid Oz.	
32 TBSP = 2 Cups = 1 Pint	
64 TBSP = 4 Cups = 2 Pints = 1 Quart	
1 oz = 3 TBSP dry weight (approximately)	

<u>Toxicity Category</u>	<u>Signal Word</u>
I - Highly Toxic (1)	DANGER
II - Moderately Toxic	WARNING
III - Slightly Toxic	CAUTION
IV - Relatively non-toxic	CAUTION

Note (1) - Pesticides in this category with signal word DANGER (skull & crossbones) POISON in red are acutely toxic in oral, dermal and inhalation exposures. If signal word is DANGER by itself, it means that toxicity rating is based on eye and skin irritation.

**Please Note: Before using any chemical always READ THE LABEL, wear protective clothing, and think safety.**

\* MOA (Mode of Activity) for detailed explanation see associated article at [www.chattanoogaarose.org](http://www.chattanoogaarose.org)

While the information contained herein is believed to be true and accurate, the Tri-State Rose Society of Chattanooga makes no warranty, express or implied, with respect to the material contained herein.

Updated 4/11/23

# SPRAY FORMULATIONS

## Products for Larger Rose Gardens

<u>Problem / Solution</u>	<u>Toxicity</u>	<u>Amount/Gal</u>	<u>Notes</u>	<u>MOA*</u>
<b><u>Blackspot and Powdery Mildew</u></b>				
Aliette	Caution	1 1/2 Tablespoons	Treatment for Downy Mildew	6
Banner Maxx (14.3%)	Warning	1/3 teaspoon	Systemic action for 14-21 days	1
Strobe 50 WG	Caution	1/4 to 1/2 teaspoon	Broad spectrum fungicide	5
Honor Guard PPZ	Warning	1/3 teaspoon	Generic form of Banner Maxx with same properties	1
Propiconazole 14.3	Caution	1/3 to 2/3 teaspoon	Generic form of Banner Maxx with same properties	1
Cleary's 3336F Plus	Caution	1 teaspoon	Systemic action for 7-10 days	2
OHP 6672 50% WP	Caution	1 teaspoon	Wettable powder generic form of Cleary's 3336F with same properties	2
Compass (50 WDG)	Caution	1/4 teaspoon	Translaminar action for 14 days, alternate with another product	5
Daconil Ultrex (WDG)	<b>Danger</b>	1/2 Tablespoon	May burn foliage when used in hot weather	6

### **Blackspot**

Dithane 75DF	Caution	1/2 teaspoon	Also somewhat effective for Botrytis	6
Dithane M45 (wetttable powder)	Caution	1 1/2 Tablespoons	Helps prevent and eradicate blackspot with little residue on foliage	6
Dithane M75 (wetttable powder)	Caution	1 Tablespoon	Helps prevent and eradicate blackspot with little residue on foliage	6
Phyton 27	<b>Danger</b>	1/2 Tablespoon	Systemic (Use 1 Tablespoon/gallon for therapeutic action)	6
Manzate	Caution	1 Tablespoon	Can be used at 3 day interval to eliminate disease	6

### **Severe Powdery Mildew**

Rubigan EC	Warning	1/4 teaspoon	For severe case use 1/2 teaspoon/gallon every 14 days	1
E-Rase Concentrate (Jojoba Oil)	Caution	4 teaspoons	Will remove powdery mildew from foliage, will not control	6

### **Botrytis (blooms develop brown edges and appear to rot, primarily in spring and fall)**

Chipco 26019	Caution	1 to 2 teaspoons	Use 1 teaspoon to prevent and 2 teaspoons to eradicate	3
Decree 50% WDG	Warning	1 teaspoon	Use every 14 days during cool, wet weather	1

### **Insects (Use only when necessary)**

Conserve SC	Caution	1/2 teaspoon	Excellent for thrips, locally systemic	4
Kontos	Caution	1/8 - 1/4 teaspoon	Substitute for Merit with Spider Mite control. Systemic & translaminar	6
Merit 75 WP	Caution	1/8 teaspoon	Effective for aphids, whiteflies, & Japanese Beetles on foliage	4
Zenith 75 WSP	Caution	1/8 teaspoon	Generic form of Merit with same properties	4
Orthene (97% WSP)	Caution	1/2 to 1 teaspoon	(Powder) Use as needed to eliminate thrips, aphids, etc.	1
Sevin (over the counter)	Caution	4 teaspoons	Japanese Beetles, mix with Tempo to prevent resistance by other insects	1
Talstar Flowable or Bifen I/T	Caution	1/2 Tablespoon	Contact miticide and insecticide	2
Tempo	Caution	1/8 teaspoon	Effective for aphids, thrips, Japanese Beetles	2

### **Spider Mites**

Avid	Warning	1/4 teaspoon	Translaminar, kills adult mites only, use 1/2 tea/gal for severe case	3
Lucid	Warning	1/4 teaspoon	Generic form of Avid with same properties	3
Minx 2	Caution	1/4 teaspoon	Generic form of Avid with same properties	3
TetraSan	Caution	1/2 teaspoon	Translaminar that kills eggs and nymphs, combine with Avid	5
Forbid 4F	Caution	1/4 teaspoon	Miticide with translaminar activity for all life stages.	6

### **Spray Adjuvants**

Beaty WSP Surfactant	Warning	1/8 teaspoon	Penetrant/wetter/spreader for systemic and translaminar pesticides
Cadence	Caution	1/2 teaspoon	Penetrant/wetter/spreader for systemic and translaminar pesticides
Binde	Caution	1/2 - 1 teaspoon	Extender/sticker/spreader for contact pesticides

### **Weights and Measures**

<u>Equivalents</u>	<u>Definitions</u>
3 tsp = 1 TBSP	TBSP = Tablespoon
2 TBSP = 1 Fluid Oz.	tsp = teaspoon
4 TBSP = 12 tsp = 1/4 Cup = 2 fluid oz.	Gal = Gallon
1 Cup = 16 TBSP = 8 Fluid Oz.	
32 TBSP = 2 Cups = 1 Pint	
64 TBSP = 4 Cups = 2 Pints = 1 Quart	
1 oz = 3 TBSP dry weight (approximately)	

<u>Toxicity</u>	<u>Signal</u>
<u>Category</u>	<u>Word</u>
I - Highly Toxic (1)	DANGER
II - Moderately Toxic	WARNING
III - Slightly Toxic	CAUTION
IV - Relatively non-toxic	CAUTION
Note (1) - Pesticides in this category with signal word DANGER (skull & crossbones)	
POISON in red are acutely toxic in oral, dermal and inhalation exposures. If signal word is	
DANGER by itself, it means that toxicity rating is based on eye and skin irritation.	

**Please Note: Before using any chemical always READ THE LABEL, wear protective clothing, and think safety.**

\* MOA (Mode of Activity) for detailed explanation see associated article at [www.chattanoogaarose.org](http://www.chattanoogaarose.org)

While the information contained herein is believed to be true and accurate, the Tri-State Rose Society of Chattanooga makes no warranty, express or implied, with respect to the material contained herein.

Updated 4/11/23