

REACTION OF ROSE CULTIVARS TO BLACK SPOT DISEASE, 2001.

Eighty-two rose cultivars were rated for defoliation from natural black spot infections. Cultivars were arranged in a randomized block design with two replications of five plants each. A weekly black spot control schedule was followed that alternated Daconil 2787 and Funginex. Insecticides were used as needed. Irrigation was as needed through a drip line equipped with spray emitters. Rainfall from Jan through June totaled 36 in. which was 6 in. above the 30 year average. Visual defoliation ratings were made 5 July and data subjected to statistical analysis using the general linear models procedure and means separation tests.

Overall black spot disease pressure was less intense than in 2000. Although rainfall in June was four times above average, total rainfall during the months of Feb, Apr and May was five times below normal. Significant differences in black spot severity were observed among cultivars with Knock Out, Chrysler Imperial and Carefree Delight again among those showing least disease. Spanish Sun, Viva and Arkansas again were among those cultivars most severely infected with black spot disease.

Cultivar	Rating*	Cultivar	Rating
Knock Out.....	2.0 a**	Betty Boop	3.2 a-m
Chrysler Imperial.....	2.0 a	All That Jazz	3.2 a-m
Carefree Delight	2.0 a	Mikado	3.2 a-m
Love and Peace.....	2.0 a	Neon Lights.....	3.3 b-m
Sunset Celebration.....	2.0 a	Brite Lites.....	3.3 b-m
Starry Night	2.0 a	Singin' In The Rain.....	3.3 b-m
Tournament of Roses.....	2.1 ab	Cherish	3.4 c-m
Queen Elizabeth.....	2.1 ab	Baby Blanket.....	3.4 c-m
Red Masterpeace	2.2 a-c	Betty Prior	3.4 c-m
Sheer Bliss	2.3 a-e	Brigadoon	3.4 c-m
Shreveport.....	2.3 a-e	Friendship.....	3.5 d-m
Perfume Delight.....	2.3 a-e	Crimson Bouquet	3.5 d-m
First Light	2.3 a-e	Redgold	3.5 d-m
Tiffany	2.4 a-f	Secret.....	3.5 d-m
Glowing Peace.....	2.4 a-f	Olympiad.....	3.5 d-m
Summer Dream.....	2.5 a-g	Gemini.....	3-6 e-m
Paradise.....	2.6 a-h	Grand Masterpiece	3.6 e-m
Double Delight	2.6 a-h	Barbara Bush.....	3.6 e-m
Black Garnet.....	2.6 a-h	New Day.....	3.7 f-m
Candelabra.....	2.6 a-h	Smoky	3.7 f-m
Mister Lincoln	2.6 a-h	First Kiss	3.7 f-m
American Pride.....	2.6 a-h	Class Act	3.7 f-m
Senorita.....	2.7 a-i	Tiger Tail.....	3.7 f-m
Mirandy.....	2.7 a-i	Sheer Elegance.....	3.8 g-m
Medallion.....	2.7 a-i	Apricot Nectar.....	3.9 h-m
Showbiz	2.7 a-i	Bill Warriner	3.9 h-m
Rio Samba.....	2.7 a-i	Sexy Rexy	3.9 h-m
King's Ransom	2.8 a-j	Tropicana.....	3.9 h-m
Carribean.....	2.9 a-k	Pride 'N' Joy	4.0 i-m
Ingrid Bergman.....	2.9 a-k	Blue Girl.....	4.0 i-m
Artistry	2.9 a-k	Bonica	4.1 i-m
Heirloom.....	3.0 a-k	Europeana.....	4.1 j-m
Amber Queen.....	3.0 a-k	First Prize	4.1 j-m
Saratoga	3.0 a-k	Kaleidoscope.....	4.1 j-m
John F. Kennedy.....	3.0 a-k	Perfect Moment.....	4.1 j-m
Silver Spoon	3.0 a-k	Peacemen.....	4.1 j-m
Pristine	3.1 a-l	Gene Boerner	4.1 j-m
Old Smoothie.....	3.1 a-l	Impatient	4.1 j-m
Touch of Class.....	3.1 a-l	Lady X.....	4.2 k-m
Disco.....	3.1 a-l	Arkansas	4.5 lm
Pleasure.....	3.1 a-l	Viva.....	4.6 m

*Black spot defoliation severity rating based on a scale of 1-6 where 1 = 0 defoliation, 2 = 1-10%, 3 = 11-25%, 4 = 26-50%, 5 = 51-75%, and 6 = 76-100% defoliation.

**Means followed by the same letter(s) are not significantly different (SNK test, P = 0.05).

Powdery mildew disease has not been a problem in the Burden Center rose garden in the past, although small amounts are seen occasionally. During spring 2002, powdery mildew was severe on some varieties, especially in the southern half of the garden. This disease normally occurs on new growth of roses in the spring months of April and May. Infections no longer occur during the hot summer months. Some fungicides used to control powdery mildew are Heritage, ConSyst, Tri-Basic Copper Sulfate, Rubigan, Cygnus, Systane, Banner Maxx, Bayleton and Fungo.

Comparison of Rose Cultivar Reactions to Powdery Mildew. Ratings made 4/17/02 by G. E. Holcomb.

Cultivar	Rating ^a	Cultivar	Rating	Cultivar	Rating
Fragrant Cloud	1.0	Mikado	1.0	Blue Girl	2.0
Redgold	1.0	Sweet Inspiration	1.0	Proud Land	2.0
French Lace	1.0	Kaleidoscope	1.0	Shreveport	2.0
All That Jazz	1.0	Dynasty	1.0	First Prize	2.0
Celebrity	1.0	Cerish	1.0	Old Smoothie	2.0
Child's Play	1.0	Timeless	1.0	Opening Night	2.0
Red Ribbons	1.0	Bewitched	1.0	Smoky	2.0
Fame	1.0	Gemini	1.0	Perfect Moment	2.1
Chicago Peace	1.0	78-15411	1.0	Tiffany	2.1
Knock Out	1.0	Saratoga	1.0	Summer Dream	2.2
Brite Lites	1.0	Sheer Elegance	1.0	Brandy	2.2
Carefree Delight	1.0	Fountain Square	1.1	Lady X	2.2
Apricot Nectar	1.0	First Light	1.1	Silver Spoon	2.4
Baby Blanket	1.0	Brigadoon	1.2	Party Time	2.4
Friendship	1.0	Sunbright	1.2	Midas Touch	2.4
Arkansas	1.0	Coral Orange	1.2	Love and Peace	2.4
Viva	1.0	American Pride	1.2	Starry Night	2.5
Tiger Tail	1.0	Glowing Peace	1.3	John F. Kennedy	2.5
Betty Boop	1.0	Sunset Celebration	1.3	Barbara Bush	2.6
Vision	1.0	Europeana	1.4	Olympiad	2.7
Showbiz	1.0	Sun Sprinkles	1.4	New Day	2.7
Sexy Remy	1.0	White Delight	1.4	Mr. Lincoln	2.9
Bonica	1.0	Tournament of Roses	1.4	Mirandy	3.0
Sheer Bliss	1.0	Rio Samba	1.4	Medallion	3.0
Bill Warriner	1.0	Betty Prior	1.4	Queen Elizabeth	3.0
Pleasure	1.0	Ingrid Bergman	1.4	Disco	3.0
Neon Lights	1.0	Double Delight	1.4	King's Ransom	3.2
Singin' in the Rain	1.0	Spanish Sun	1.4	Prominent	3.4
Impatient	1.0	Secret	1.5	Oldtimer	3.6
Scintimental	1.0	Carribbean	1.5	Seashell	3.7
Gene Boerner	1.0	Artistry	1.6	Tropicana	3.8
First Kiss	1.0	Crimson Bouquet	1.6	Peace	3.9
Pride 'n' Joy	1.0	Heirloom	1.7	Red Masterpiece	4.3
Class Act	1.0	Pristine	1.8	Black Garnet	4.4
Senorita	1.0	Chrysler Imperial	1.9	Perfume Delight	4.7
Candelabra	1.0	Paradise	1.9	Touch of Class	4.8
Grand Masterpiece	1.0				

^aRatings based on a scale of 1 to 6, where 1 = no powdery mildew present, 2 = 1-10% of foliage with mildew, 3 = 11-25%, 4 = 26-50%, 5 = 51-75% and 6 = 76-100% of foliage with mildew.