

## Pest Resistant Shrub Roses: The Rest of the Story

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**Nature of Work:** A no spray rose trial was established at the Mountain Horticultural Crops Research and Extension Center, Fletcher, NC in 1994. An average of 1.32 in. of rainfall per week during that rainy growing season (April through October) was recorded. Results from this trial were presented at the 1995 Southern Nurserymen's Association Research Conference (Bir).

Canes of roses in this trial were pruned to a length of approximately 15 inches in early March 1995 with weakest canes removed. Thereafter, the test was continued under the same cultural conditions reported earlier.

**Results and Discussion:** Very little disease was experienced during the 1994 growing season. However, April through October 1995 was even wetter than 1994 with an average of 1.36 in. of rainfall per week. Infestations of blackspot (*Diplocarpon rosae*) and *Cercospora* leaf spot became a major problem on some cultivars while adjacent plants of other cultivars, often with foliage touching, remained free of disease.

The only insect pest noted was Japanese beetle. Only one cultivar, 'Sarah van Fleet,' had foliage damaged by Japanese beetle. Three cultivars, all with white flowers, had petals damaged by Japanese beetles. These cultivars were 'Albo-plena,' 'Blanc Double de Coubert,' and 'Rugosa alba' with the most damage on 'Rugosa alba.'

Powdery mildew (*Erysiphe cicharoacearum*) was a problem only on 'Sarah van Fleet.' Petal blight (*Botrytis cinerea*) was an occasional problem on 'Linda Campbell' and a continuing problem on 'Roseraie de la Hay'. None of the other cultivars displayed symptoms of either of these disease problems.

The major disease problem of roses in the humid southeastern United States is blackspot (Dirr). This, as well as a leafspot caused by *Cercospora sp.*, infested five cultivars, two of which were so severely affected as to be mostly defoliated by early September 1995. All of the Meidiland roses in the test, 'Alba Meidiland,' 'Bonica,' 'Pink Meidiland' and 'Scarlet Meidiland' plus 'Linda Campbell' were susceptible to blackspot. 'Linda Campbell' and 'Pink Meidiland' were nearly without leaves by the end of the 1995 growing season. These same cultivars were all susceptible to the *Cercospora* leaf spot, which developed about mid-season in 1995. 'Bonica' was slightly affected. 'Alba' and 'Scarlet Meidiland' displayed the leafspot at an intermediate level but continued to be vigorous growers. 'Linda Campbell' and 'Pink Meidiland' were most susceptible to this leafspot as well as blackspot.

**Significance to the Industry:** Shrub roses are being touted to the gardening public as excellent choices for reducing pesticide use in the garden while still enjoying beautiful flowers (Springer, Verrier 1996). Unlike many other shrub roses, all of the cultivars in this trial were repeat bloomers. One, 'Fru Dagmar Hastrup' produced at least three distinct crops of pink flowers followed by large, scarlet hips so that flowers and hips were prominent at the same time in mid summer.

Pests were demonstrated to be a problem on some shrub rose cultivars in this test. In areas of the southeast prone to regular rainfall and high humidity 'Rosarie de la Hay' should be avoided since it is petal blight prone. 'Linda Campbell' and 'Pink Meidiland' should similarly be avoided in areas where blackspot and *Cercospora* leaf spot are a problem. 'Bonica,' 'Alba Meidiland' and 'Scarlet Meidiland' were susceptible to both of these diseases but continued to be vigorous growers displaying good resistance under conditions highly favorable to disease development. 'Sarah van Fleet' had occasional infestations of Japanese beetle and powdery mildew but these were only an irregular nuisance.

The following cultivars had only minor pests or no pest problems at all: 'Albo-plena,' 'Blanc Double de Coubert,' 'Fru Dagmar Hastrup,' 'Rugosa alba,' and 'Topaz Jewel.' 'Topaz Jewel,' which is allegedly of questionable hardiness (Verrier 1991), survived 0 F. with no protection and displayed no injury.

#### Literature Cited

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**Acknowledgement:** Thanks to Wayside Gardens, Hodges, SC and Jeff Epping of Chicago Botanic Gardens, Chicago IL for providing the plants in this test.