

Texas Rose Rustlers
April 1995
Annual Symposium

Saturday, April 29th
 Horticultural Science Building
 Texas A & M University
 College Station, Texas

AGENDA

Spring Bloom Exhibition begins at 10AM

We need more blooms and more variety than ever before. Come as early as 9:30 to setup your blooms in vases provided and label them with variety name, class, and your name. Please bring as many as you can to make the exhibition a success.

Annual Business Meeting at 11:45AM

Lunch at 12:00

Tables, drinks, and ice will be provided.

Drawings for Door Prizes at 12:45

All Texas Rose Rustlers members may participate.

Discussion Groups begin at 1:00

We will break up into four different discussion groups. Each group will have a separate classroom. A group leader will be in each group to help with the discussions and to submit an article to our quarterly newsletter on the content.

The discussion groups are as follows and feel free to wander from group to group as you wish:

[1] In Search of Lost Roses

Bring your unknown roses -- blooms (or pictures) and cuttings -- for "a show and tell" on the discoveries you have made and wish to share. Or maybe you would like some tips on cemeteries and towns to "rustle".

[2] Landscaping with Antique Roses

Have a discussion with other interested "old rose" gardeners on the best use of classes or specific varieties in landscape situations. Bring pictures to explain the situations and get suggestions from others in the group.

[3] Cultivation of Antique Roses

Now's your chance to share how you grow'em or prune'em. There should be a wide spectrum of approaches for you to encounter in this group.

[4] Propagation of Antique Roses

Whether you use willow water, go by the phases of the moon, use Rhizopan, ziplock bags, jars, or oasis, share with others your success secrets or try to solve the failures others are frustrated with.

Field Trip to A&M Evaluation Garden at 3:30PM

We will drive several miles West of College Station to visit the vast A&M Rose Evaluation Site. It contains nearly 500 plants and of such variety that it may be your only chance to see such varieties blooming. Many species and rare cultivars, as well as crosses from their breeding program, are maintained. If it has rained recently you must bring boots because there will be sticky clay mud everywhere that cannot be avoided.

MLB 3-30-95

No. 12

Horticulture Building

TEXAS A&M UNIVERSITY

Campus



FIELD STUDY OF BLACK SPOT RESISTANCE IN ROSE

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Overton, TX 75684-2127

Introduction

The disease known as black spot has long been the bane of rose growers. This fungal disease caused by the pathogen *Marssonina rosae* proliferates in warm wet weather and attacks primarily the foliage of the plant. The disease is characterized by black irregular lesions appearing on the adaxial surface of the leaves as seen in Figures 1 and 2. The exact size, appearance, and distribution of the lesions can differ among rose varieties and also with environmental conditions. The end result of the infection is the defoliation of infected leaves. If disease pressure is high enough and a variety is susceptible enough then a severe weakening or even death of the bush can occur.

The following research has been initiated for two main reasons. The first is to develop a good rating system to characterize a variety's resistance to black spot which can then be used as a system to screen for black spot resistance in a breeding program. The second is to start screening potential varieties that may be useful in future breeding. Much of this work involves looking at species and interspecific crosses which have already been reported as having good black spot resistance.

Materials and Methods

Two trials have been set up thus far to do a field survey of black spot resistance in rose. Forty-five varieties were planted including species and commercial material in the spring of 1993. The experiment was designed as a randomized block with four replications at two sites. The plants were placed on three foot centers and the variety Peace was used every ten plants to act as a standard and as a spreader of the pathogen. The first site is located ten miles from the main campus of Texas A&M in College Station, Texas. The second site is located at a Texas A&M Extension site in Overton (Northeast Texas). A second trial was planted the spring of 1994 at both of these sites again. The second trial consisted of seventy-eight varieties several of which have been released by a Canadian rose breeding program with reports of resistance.

The 1993 trial was rated four times during the growing season and twice again this year. The 1994 trial has been rated twice this year. Ratings consisted of a black spot rating and a defoliation rating which are described in Figure 3. A black spot rating from 0 to 2.5 was categorized as high resistance. A rating from 2.5 to 5.0 was categorized as moderate resistance and up to 7.5 points was considered low resistance. Above 7.5 was selected as being susceptible. A low black spot rating indicates good resistance, however, a defoliation rating is used to augment the categorization. A variety with a defoliation rating more than 2.5 points, but less than 5.0 points higher than its black spot rating was dropped a category. defoliation between 5.0 and 7.5 and greater than 7.5 moves a variety two or three categories respectively. This methodology was used to compensate for varieties that defoliate quickly after infection and therefore show lesions only briefly. An example of this is the cultivar All That Jazz which has a low black spot rating of (1.50), but a defoliation rating (6.25). Using just the black spot rating alone would give the erroneous conclusion that this cultivar has high resistance.

Discussion

The past two seasons of data have followed expected trends. Most of the species material has shown a high degree of resistance to black spot. Commercial material varied greatly. The Canadian material developed from using *R. rugosa* has shown good resistance thus far this season. Material developed by Dr. Robert E. Basye and currently being used in the Texas A&M breeding program

also good resistance, but not complete immunity. An example of one of his interspecific hybrids is pictured in Figure 4. This hybrid is the result of crossing *R. foliolosa* with *R. rugosa rubra* and thus far it has shown very good resistance to black spot, but it is not tolerant to the calcareous soils found at Texas A&M. The broad based Shrub rose class is found in both the high and moderate categories. Hybrid Teas and Floribundas are predominantly found in the low and susceptible categories.

Seasonal variation in infection rates can be seen in Figure 5. The graph shows the average ratings found on the cultivar Intrigue over the 1993 growing season. This growing season was marked by a prolonged period without rain during the summer at both sites. This is reflected in the ratings which dropped at the August survey. The spores of *Marssonina rosae* require a film of water on the leaf tissue in order to germinate. This same graph shows some of the differences seen at the two sites. The Overton sites showed higher ratings for most of the varieties used. This would suggest that there is more disease pressure at this site. Finally this graph shows that the early to mid summer is the best time to take ratings.

An unexpected event was seen during the 1993 growing season. Two previously unseen races of the pathogen were documented. Initially the cultivar Sunbright showed good resistance, but starting in July one plant became infected and slowly the other three plants at this site became infected. The same thing happened at the A&M site, but it occurred later in the season. Figures 6 and 7 respectively show a healthy and a diseased plant of Sunflare on the same day, but in different locations within the trial. The same scenario was also observed on the cultivar Sunflare. In this case the new race was observed in late October at both sites. The disease progressed rapidly to all plants before the winter dormant season.

Three other fungal diseases were seen in the plots, but no significant insect damage occurred. Powdery mildew caused by the fungal pathogen *Sphaerotheca pa. rosa* f.sp. *rosae* appeared briefly in early spring on some cultivars, but it did not do any significant damage. Rust (Figure 8.) has developed the past two years, but only on *R. setigera*. It caused major defoliation, but it has not seemed to inhibit the species' vigor. This does give an inflated defoliation rating even though this species appears highly resistant to black spot. The final disease known as Cercospora causes a dark reddish brown lesion with the center necrotic on leaf tissue (Figure 9). On some varieties of roses the early stages of these lesions can be confused with black spot lesions. This has made taking the black spot rating more difficult especially at the Overton site where the disease is more prevalent. This disease does not cause the radical defoliation that black spot causes so the actual damage to the bush should be low.

Dear Rustlers,

We are trying to set up a staff to assure you a newsletter in the future. We thank Marion Brandes for this issue, as well as his fine work on planning our Annual Symposium. Our group has grown so big and so enthusiastic that we need to reorganize some of our duties to better perform them.

Everyone has been most cooperative and willing to help. We thank each of you and just ask for your patience as we gradually get things in order. Being an organized group of unorganized rose growers you may expect some occasional surprises.

Remember that this Symposium is our annual "Learning Experience" so be sure to attend to take advantage of all the wealth of knowledge we offer! Just don't forget your lunch!!!

-- Margaret Sharpe, Editor

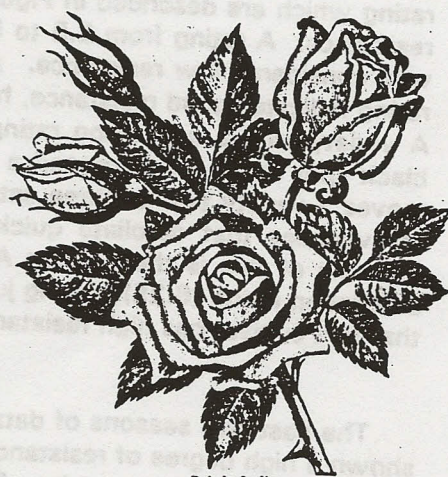


Table 1.

Cultivars With High Resistance to Black Spot

Year Planted	Cultivar Name	Class	BS Rating	Defol Rating
1994	90-300 (<i>R. setigera</i> x <i>R. wich</i>)	IHy	0.00	0.00
1994	Alexander McKenzie	S	0.00	0.00
1994	Bease's Purple	IHy	0.00	0.00
1994	Charles Albanel	HRg	0.00	0.00
1994	Jens Munk	HRg	0.00	0.00
1993	<i>R. banksiae banksiae</i>	Sp	0.00	0.00
1993	<i>R. roxburghii</i>	Sp	0.00	0.00
1994	<i>R. virginiana</i>	Sp	0.00	0.00
1994	<i>R. wichuraiana poterifolia</i>	Sp	0.00	0.00
1993	The Fairy	Pol	0.00	0.00
1994	89-1 (<i>R. wich</i> x <i>R. rox</i>)	IHy	0.00	0.25
1994	90-1 (<i>R. wich</i> x <i>R. bank</i>)	IHy	0.00	0.25
1994	<i>R. multiflora</i> 'Wuci Feychong'	Sp	0.00	0.25
1994	<i>R. wichuraiana</i> thornless	Sp	0.00	0.25
1994	<i>R. carolina</i>	Sp	0.00	0.50
1994	<i>R. foliolosa</i>	Sp	0.00	0.66
1994	<i>R. x odorata</i>	Sp	0.00	0.66
1994	William Baffin	S	0.00	0.66
1993	<i>R. banksiae normalis</i>	Sp	0.00	0.75
1993	<i>R. brunonii</i>	Sp	0.00	0.75
1994	<i>R. pelustris</i>	Sp	0.00	0.75
1994	Henry Hudson	HRg	0.00	1.00
1993	<i>R. rugosa rubra</i>	Sp	0.00	1.67
1993	Pearl Meidiland	S	0.00	2.00
1993	Red Meidiland	S	0.00	4.50
1993	<i>R. setigera</i>	Sp	0.00	7.75
1994	86-7 (<i>R. wich</i> x <i>R. rugosa</i>)	IHy	0.25	0.00
1994	Perle des Jardins	T	0.25	0.25
1994	90-238	S ²	0.25	0.50
1994	90-81	S ²	0.25	1.00
1993	<i>R. rugosa</i>	Sp	0.25	3.00
1994	Martin Frobisher	HRg	0.33	0.66
1993	90-69	S ²	0.50	0.50
1994	Belle Portugaise	LCI	0.50	1.25
1993	Scarlet Meidiland	S	0.50	1.50
1994	62-322	S ²	0.50	2.00
1994	Cuthbert Grant	S	0.50	2.00
1993	Alba Meidiland	S	0.75	0.50
1994	David Thompson	HRg	0.75	0.50
1993	Laffer	HT	0.75	0.50
1993	Belinda's Dream Mrs. B.R. Cant	CI HT	0.75	0.75
1993	Belinda's Dream	S	0.75	1.25
1994	65-626	S ²	0.75	1.50
1994	John Davis	S	0.75	1.50
1994	90-78	S ²	1.00	0.00
1993	88-1 (<i>R. wich</i> x <i>R. rugosa</i>)	IHy	1.00	0.25
1993	<i>R. moschata</i>	Sp	1.00	0.25
1994	Little Eskimo	Min	1.00	1.00
1994	Nearly Wild	F	1.00	1.66
1993	74-193	S ²	1.00	3.00
1994	Hermosa	Ch	1.25	1.75
1994	Agnes	HRg	1.25	2.00
1994	Dortmund	S	1.33	2.33
1994	82-1134	S ²	1.50	1.25
1993	Carefree Beauty ("Katy Road Pink")	S	1.50	1.75
1993	86-3 (<i>R. bank</i> x <i>R. laev</i>)	IHy	1.75	2.67
1993	<i>R. laevigata</i>	Sp	1.75	3.00
1993	<i>R. x fortuniana</i>	Sp	2.25	0.50
1994	Topaz Jewel	HRg	2.25	1.75
1993	Mary Manners	HRg	2.25	3.50
1994	Fellowship	F	2.25	4.50

Table 2

Cultivars With Moderate Resistance to Black Spot

Year Planted	Cultivar Name	Class	BS Rating	Defol Rating
1993	All That Jazz	S	1.50	6.25
1994	Montezuma	Gr	2.00	4.66
1993	Sarrano	T	2.25	5.25
1994	Perfect Moment	HT	2.50	2.00
1993	John Cabot	S	2.50	2.75
1994	Crimson Glory	HT	2.50	3.00
1994	York and Lancaster	D	2.66	2.00
1994	Simplicity	F	2.75	2.25
1994	Duet	HT	2.75	3.25
1994	Tiffany	HT	2.75	4.00
1994	Electron	HT	3.00	2.75
1994	Century Two	HT	3.00	3.25
1993	Pink Meidiland	S	3.25	2.00
1994	Sweet Inspiration	F	3.25	3.00
1994	Gold Medal	Gr	3.25	4.00
1994	Mr. Lincoln	HT	3.25	4.25
1993	Tournament of Roses	Gr	3.25	5.25
1994	Shining Hour	Gr	3.50	2.50
1994	Oklahoma	HT	3.50	3.75
1994	Madame Hardy	D	3.50	4.25
1993	Gartendirektor Otto Linne	S	3.50	5.25
1994	Iceberg	F	3.75	3.00
1994	Rio Samba	HT	3.75	5.50
1994	Touch of Class	HT	4.00	5.33
1994	Heirloom	HT	4.00	6.00
1994	Morden Blush	S	4.25	1.75
1994	Shreveport	Gr	4.25	2.75
1994	Sun Goddess	HT	4.25	5.00
1994	Playgirl	F	4.50	3.25
1994	Carrousel	Gr	4.50	3.75
1994	Angel Face	F	4.50	4.75

Table 3.

Cultivars With Low Resistance to Black Spot

Year Planted	Cultivar Name	Class	BS Rating	Defol Rating
1993	Old Blush	Ch	1.50	7.25
1993	Sheer Elegance	HT	1.50	8.75
1993	America's Choice	HT	1.66	8.66
1993	Sexy Raxy	F	2.00	8.75
1993	Tropicana	HT	2.00	9.00
1993	Ingrid Bergman	HT	2.50	6.50
1994	Golden Showers	LCI	2.75	6.00
1994	Garden Party	HT	3.25	6.25
1994	John F. Kennedy	HT	3.25	6.50
1994	New Day	HT	3.33	7.33
1994	Olympiad	HT	3.66	6.00
1994	Playboy	HT	4.25	5.75
1993	Honor	HT	4.50	7.50
1993	Carefree Wonder	S	5.00	3.50
1994	Picasso	F	5.00	6.00
1994	Persian Yellow	Sp	5.33	7.66
1993	Peace	HT	5.46	5.04
1993	Salsa	HT	5.50	8.75
1994	Pleasure	F	6.00	7.00
1993	Intrigue	F	6.00	8.00
1994	Amber Queen	F	6.50	8.25
1994	Pinstripe	Min	6.50	8.50
1993	Sunbright	HT	7.25	8.75

Table 4.

Black Spot Susceptible Cultivars

Year Planted	Cultivar Name	Class	BS Rating	Defol Rating
1993	Impatient	F	4.00	8.25
1993	Bonica '82	S	4.25	8.25
1994	Queen Elizabeth	Gr	5.33	8.33
1994	Ole'	Gr	5.33	9.00
1994	Purple Tiger	F	8.50	9.00
1993	Sunflare	F	9.00	9.00

Legend

IHY	Interspecific Hybrid
S	Shrub
HRg	Hybrid Rugosa
Sp	Species
Pol	Polyantha
T	Tea
LCL	Large-flowered Climber
HT	Hybrid Tea
Cl HT	Climbing Hybrid Tea
Min	Miniature
Ch	China
F	Floribunda
Gr	Grandiflora

* Defoliation primarily due to water stress

• Defoliation due to rust infection

Complex Hybrids being used in breeding program at Texas A&M

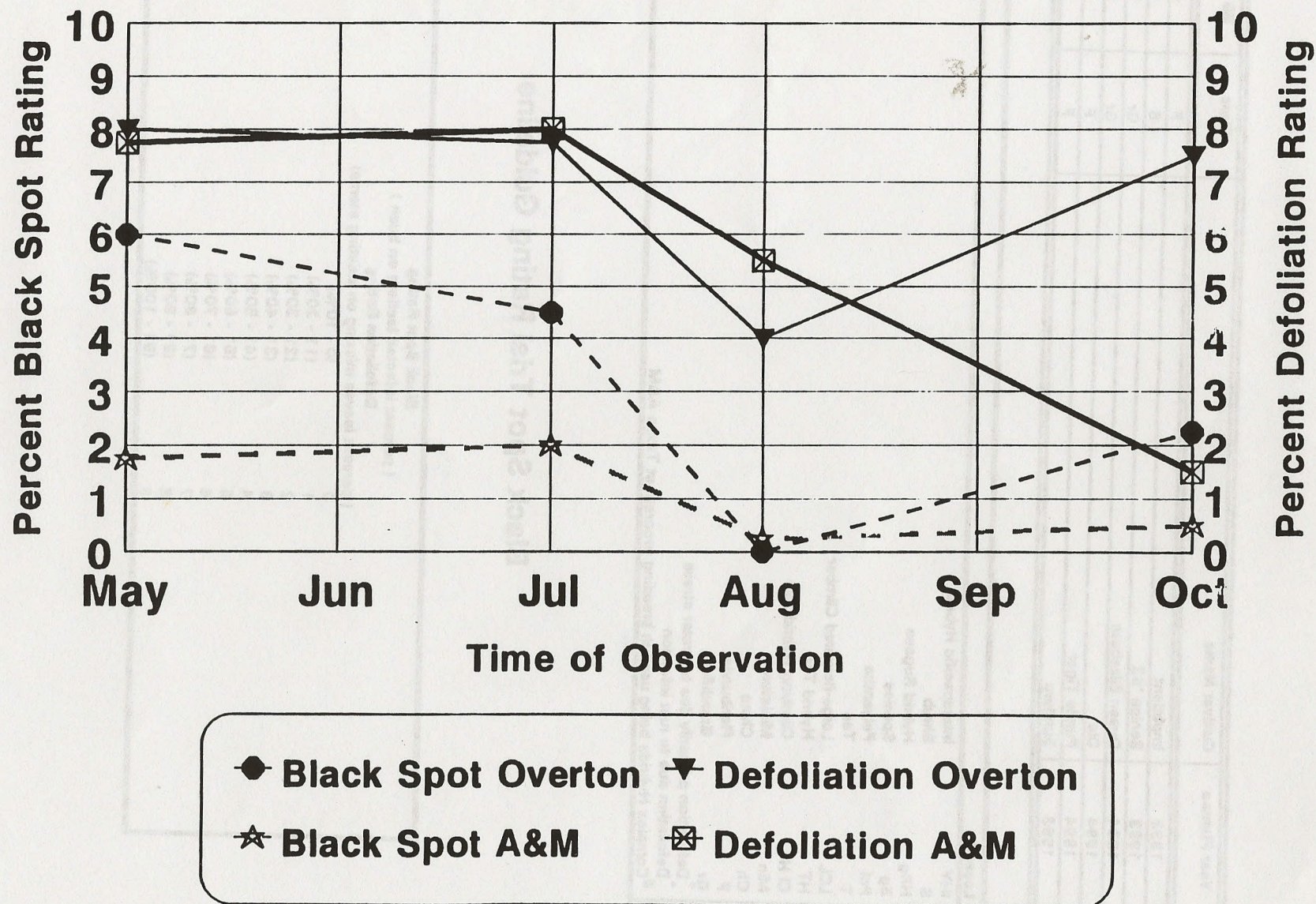
Black Spot Trial Rating Guideline

Black Spot Rating (percent infected leaflets on bush)	
Defoliation Rating (percent leaves missing on existing stems)	
0	(0 - 10%)
1	(11 - 20%)
2	(21 - 30%)
3	(31 - 40%)
4	(41 - 50%)
5	(51 - 60%)
6	(61 - 70%)
7	(71 - 80%)
8	(81 - 90%)
9	(91 - 100%)

Figure 5.

Black Spot Ratings for INTRIGUE at Overton and Texas A&M in 1993

8





Saturday & Sunday, October 14th and 15th
Shreveport ARS Rose Center,
Natchitoches Old American Cemetery,
and Hodges Gardens

If registration response is sufficient, the Texas Rose Rustlers will be traveling in a luxurious bus with a capacity of 40-45 people. There will be a rest room onboard and a cooler full of drinks. There are four TV screens and we'll even view English garden video tapes while traveling. Everyone should bring a picnic lunch for the first day.

The total cost to be prepaid to the Texas Rose Rustlers is \$30 and all costs for overnight accommodation and meals will be paid directly by each person or couple on the trip. The estimated grand total cost would be about \$185 for a couple and \$110 for one person. Your prepayment to register must be sent to Mayo & Lucille Idom before June 1, but considering the limited capacity of the one bus, it would be wise to send your check in as soon as possible.

ITINERARY

Shreveport, Louisiana

The bus will pickup at a parking lot in Houston to be named later and will embark at around 8:30 am on Saturday morning. We will travel all morning (3.5-4 hrs.) to Shreveport and will arrive in time to have a picnic lunch at the ARS National Rose Center. We will spend the afternoon enjoying the many rose gardens, modern and old garden roses in the beautiful beds at the Center. There is very nice gift shop at the Center. We will spend the evening at a nearby Inn.

Natchitoches, Louisiana

We will arrive in the historic town of Natchitoches early Sunday morning (9:15am). We will first visit the old American Cemetery on Second St. at the heart of the historic district, where a large number and variety of roses are reported to be growing. We will then visit the old French Fort St. Jean Baptiste (originally built in 1714) on Mill St., where the "Natchitoches Noisette" is growing nearby. The remaining time left in the morning will be spent browsing the old streets and historic sites within the original settlement. For lunch we will have one of the famous Cajun meat pies (or an alternative if desired) on Front St.. While traveling South to Hodges Gardens we will take the historically scenic route along the Old Cane River Road where there are many restored plantations.

Many, Louisiana

We should arrive at Hodges Gardens around 2:00pm on Sunday. The site of a former rock quarry has been transformed into an island, lake, and surrounding gardens of spectacular beauty. Water falls, fountains, rose gardens, streams, greenhouses, all await our visit. From Hodges Gardens we will drive directly back to Houston arriving in the evening at 8pm (approximately). MLB 3-25-95

REGISTRATION FORM FOR TEXAS ROSE RUSTLERS LOUISIANA BUS-TRIP

Mail

to : Lucille Idom
13106 Blythe, Houston 77015

Return

Confirmation to: _____

Current Memberships:

ARS?

Rose
Rustlers?

Please register _____

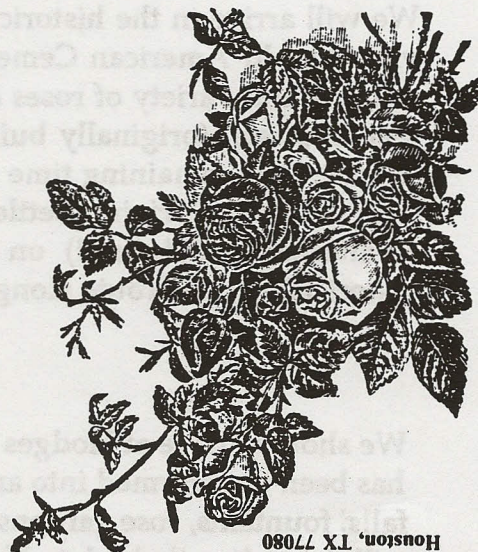
and find a check or money order enclosed for \$30 for each of the above registrants.

You will be mailed a confirmation that you have been registered and instructions on how to make room registration at the Inn where we will be staying. Later in the year you will receive specific instructions on where we will be parking and embarking from in Houston. Each person will have to pay \$5 admission to Hodges Gardens and \$2.50 to ARS Rose Center (ARS members free).

If you should want to cancel you should find someone to take your place because refunds will not be possible. We will assist you in finding a replacement.

You will also be paying for each meal directly on Saturday evening, Sunday breakfast, and Sunday lunch. You will need to bring a picnic lunch for Saturday with you.

cut here



The Texas Rose Rustlers
Mrs Margaret P. Sharpe
9426 Kertwood
Houston, TX 77080



Next Rose Rustler Meeting and Field Trip...

**Texas Rose
Rustlers**

Riverside Park and
Evergreen Cemetary,
Victoria TX

Date: April 1, 1995 Time: 11:00am

As you can see, there has been a change in the date of our Spring meeting but the new site is definitely worth the wait! Riverside Park was the site of the 1989 Fall Rustle, one of the most popular rustles ever. This time, however, we will be seeing it in the Spring so it promises to be even more floriferous than in '89. Its 5200 square foot Rose Garden consists of five concentric rings with a gazebo in the center. The outer ring contains old roses and in front is a 250 foot split-rail fence covered over with yellow, red, and pink climbers.

Marion secured permission to take cuttings and, in return, it would be nice to donate any extra rooted cuttings we may have of Teas, Chinas, Noisettes, Polyanthas, or Hybrid Musks. They do have a number of empty beds and would like to fill them with antiques.

We will meet in the parking lot by the Rose Garden and, after looking at the roses, will lunch at the Grover's Bend picnic pavilion nearby. We will brown bag it but will have a dessert table set up so bring goodies to share, if possible.

After our lunch and meeting, we will proceed to Vine Street to visit Evergreen Cemetary which spans three city blocks and contains some exceptionally large and very fine old garden roses growing at many of the gravesites. There are no fewer than fifteen different varieties of roses there. Look especially for their 6' Marie Pavie, a rare rose called Tip Top, and Marion Brandes' "Victoria Evergreen Red". You may take *discreet* cuttings here, should the spirit move you.

