



March - April 2011



THE CAPITAL ROSE

A publication of the Arlington Rose Foundation
and the Potomac Rose Society.
Affiliated with the American Rose Society.

March Events

Sunday, March 13, 2011, 2:00 p.m.

Arlington Rose Foundation
Monthly Public Meeting
Adventures of a Novice Rosarian

Speaker: Stuart Houston
Merrifield Garden Center

12101 Lee Highway, Fairfax, VA

Stuart Houston has been passively involved with roses since a small child watching and helping parents. For the past several decades he has been actively involved, starting with several hundred HTs and today primarily into David Austin shrubs. During this journey Stuart has encountered his share of successes and failures. He will share these with us. We all have a lot to learn from his adventures.

Thursday, March 17, 2011, 7:30 p.m

Potomac Rose Society
Monthly Public Meeting
All About Pruning

Speaker: Nick Weber

McLean Governmental Center,
1437 Balls Hill Road, McLean, VA

Experienced rosarian and nurseryman, Nick Weber, will discuss techniques for pruning various types of roses. Slides showing the pruning of climbers and shrubs will be complemented by hands-on demonstrations with potted hybrid teas and miniatures. Proper pruning is critical to healthy roses and beautiful blooms, so plan to attend this timely lecture.

Sunday March 20, 2011, 2:00 p.m.

Arlington Rose Foundation
Pruning Demonstration

Bon Air Memorial Rose Garden
850 N. Lexington St, Arlington, VA
ARF Consulting Rosarians

Learn how to prune roses - hybrid teas, climbers, shrubs, and more. Bring your gloves and pruners to practice the techniques.

[more events, pages 3, 10 & 12]

QUEENPOWER

by Bill Blevins,

ARF Consulting Rosarian Emeritus

QUEENPOWER – its first and only appearance was in the Rose Exhibitors’ Forum Winter 1996. I was asked to write it by several attendees at the annual Top Gun exhibitors’ meeting in NC. Randy Scott, among others, said I should submit it to a more public forum. Thanks to Bob Martin, current REF editor, my article has now been liberated from its “time capsule” existence. I plan to do a follow-up article thereby bringing the last 15 years up to date. So mentally digest this older article and prepare to feast on the follow-up article in the next issue. Bon appétit.

I think back to my first glimpse of a rose show in the fall of 1973. My only prior association with roses was when I was in need of a nice bouquet from Mom’s garden at prom time, or to impress some new lady friend.

Upon returning to observe the show results, I was quite content with my 3rd place ribbons for **Apollo** and **Portrait**, the two AARS roses I had purchased in 1972. But, as my wife and I toured the show, I quickly became in awe of the blue ribbon winners and particularly the “Front Table” award winners. Here they were, the “crème de la crème.” Even the names were impressive: **Red Devil**, **Red Queen**, **Red Lion**, and **Red Planet**. Other descriptive names such as **Summer Sunshine**, **Golden Girl**, **Pink Peace**, and **White Knight**. Catchy, charismatic names such as **Tropicana**, **Tiffany**, **White Christmas** and **Touch of Venus**. **John Waterer**, **Soeur Thérèse** and **Ernest H. Morse** must surely be famous people, but I’d never heard of them! **Burnaby** must mean something to somebody! **First Prize** has to be a good one!

My attention was led to the center of the award table - Queen of the Show - then where is the King? That must be the big winner, since I knew kings ruled kingdoms. But not in Rosedom. There it was - by itself - ruler of the whole show – **Garden Party** - Queen of the Show. (Until then the only “Garden Party” I was familiar with was a top 10 hit by Ricky Nelson.) The King, Princess and Prince were merely the best of all the rest.

This was for me. I’d had my fling with glads, irises, dahlias, etc., but even I knew roses were a season long affair. Blooms all summer long until cold weather. Having been raised on a farm and engaging in friendly contests for the biggest tomato, sweet potato, pumpkin, etc., I became determined I had to try and grow some of these long-

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Membership

1 year \$15
2 years \$26
3 years \$33

The term of membership begins on January 1st; dues for new members who join between June 1st and December 31st will carry them through the following year, at no extra charge. Payment should be sent to:

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The Capital Rose

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**WELCOME NEW
MEMBERS!**

ARF

Bob Smith Fairfax VA

PRS reports no new members this month.
Help us grow - tell your rose-growing
friends and neighbors about us!!

PHOTO CREDITS

Page 1 **Garden Party** Bob Dahms
Page 4 **Knockout** Kathy George
Page 8 **Old Blush** Kathy George

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Regular \$15 per year
Sponsor \$25 per year
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Membership is also encouraged in the **American Rose Society (ARS)**, dues for which are \$49 per year (\$46 for those 65 and older). To join ARS, send dues to: **American Rose Society, P.O. Box 30,000, Shreveport, LA 71130** (or see ars.org)

ARF President's Message

by Dave Maxwell

We punctuated this past year with awards and installation of officers at our December brunch. This was well attended and a good time had by all. The American Rose Society Bronze Medal was awarded to Bill Blevins, honoring his many years of dedicated service to the Arlington Rose Foundation. *Congratulations Bill.* These officers were installed:

President	Dave Maxwell
First VP	Pam Powers
Second VP	Joan Von Herbulis
Secretary	Judy Albert
Treasurer	Sheri Mirilovich
Directors	Bill Blevins, Nita Bowen, Capt Eddy Krauss, Ellen Davidson, Art Von Herbulis, Jay Jensen

I thank each officer for their willingness to contribute their time and energy to make the ARF everything it can be in promoting the enjoyment of the rose. I encourage others to help where you can, as there is not much work and usually a lot of fun.

We are off to a very good start to our new year meeting schedule with the outstanding presentation in February on Old Garden Roses by Connie Hilker of Hartwood Roses. The attendance was good and could have been even better based on the regrets I've received from several members who either forgot or had conflicts. Going forward we have a diverse variety of topics which should be of interest to all. Please take advantage of your membership, bring your friends and neighbors, participate in our activities, and hear the many excellent speakers. Our meeting attendance has been running about 25 for the past year. With your support I would like to set a goal of 35 for this year. Please help us in our mission.

As the Arlington Rose Foundation enters its 61st year, I urge each member to participate fully in the other activities as well. From spring and summer rose clinics, to the June rose show and Community Outreach events, there are many opportunities to participate. We are particularly looking for volunteers to help in our Community Outreach, including: rose sales for our nursery partners, Merrifield Garden Center, Campbell & Ferrara and Sam's Farms - weekends May 1 through 21; rose sales at the National Cathedral's annual charity Flower Mart - May 6-7; and rose sales at the Franciscan Monastery - Apr 30-May 1. We will be providing free polo shirts with the ARF logo to volunteers. No special technical knowledge is required of volunteers, just enthusiasm and a desire to contribute. These events are great opportunities to alert the public to our desire to assist them in growing and enjoying roses.

Our Spring Rose Show is June 4th & 5th. Everyone should plan on exhibiting some roses. You don't need to be a member. We are also looking for volunteers to help, including: set up, judges' clerks, information desk and runners; please contact our Show Chairperson, Pam Powers at 703 371 9351. You can also help by becoming a Benefactor for \$50, a Patron for \$25 or sponsoring a trophy for \$35, all of which help defray the expenses of the show.

Finally, don't delay in placing your orders for Country Store products. See the Jan/Feb Capital Rose for an order form. Mail these to Joe Mirilovich, 2817 Center Ridge Drive, Oakton, VA 22124. Bulk orders may be picked up about mid-March at Sam's Farm, 7129 Leesburg Pike, Falls Church, VA 22043. For details call Joe at 703 620 5825.

Have a great year and may all your roses be winners.

Thursday, April 21, 2011, 7:30 p.m.

Joint ARF/PRS

Monthly Public Meeting

Fertilizing Roses & Soil Testing

Speaker: David Maxwell, Consulting Rosarian

McLean Government Center

1437 Balls Hill Rd, McLean, VA

Roses respond well to a broad range of fertilizers, but they do require a balanced diet. Join us to learn what combinations work best. Also learn how to interpret your soil test report and how this affects your choice of fertilizers.

SPRING 2011 ROSE GARDEN CARE

by Kathryn George

To obtain strong, healthy rosebushes that produce beautiful blooms, the rose gardener works hard early in spring. Spring pruning and fertilization carry the rosebushes through much of the upcoming year. Spring rose care includes: a) Pruning; b) Fertilization; and c) Disease and Pest Control.

PRUNING: January and February 2011 in metropolitan Washington DC saw several storms bringing snow, ice, and extreme cold. We suffered cold windstorms, with winds so strong in late February that the 40-foot plus national Christmas tree at the White House cracked and fell over. In Gaithersburg, two tall canes on my climbing Chrysler Imperial were knocked from the garage and bent over to the ground. One cane is cracked and needs hard pruning.

The cold weather caused rosebushes to go dormant and drop their leaves. Sometimes the ground froze. Mid-February brought a turn-around, with some unusually warm days. Then the cold and wind returned. Will we see a March snowfall? Or will spring come early?

Traditional instructions are to hard prune your roses when the forsythia blooms, which ranges from early- to mid-March in Washington. Pruning sooner encourages new growth too early, and a surprise freeze can damage canes. If you do prune early, make another garden tour, about four weeks later, to inspect the bushes and cut out any dieback.

For **Hybrid Teas, Floribundas, repeat-blooming OGR's, and most Shrub roses**, general advice is that if you want a larger number of smaller blooms, such that the bush looks attractive in the garden, prune to about three to four feet. If you want a smaller number of larger blooms, such as to enter at a rose show, then prune harder - down to about 18 inches to two feet.

Cut out any dead or damaged canes. Remove dead and spindly branches on a cane. Don't leave a "coat hook," which is a cane with a two-inch stub of a branch near the end. Cut away stubs, to be even to the cane.

To prune a cane, cut on a slant, just above a good bud eye. Try to prune above outward facing bud eyes, which encourages the rosebush to grow outward, with good air circulation.

Cut below any cracks or purple discoloration to the cane. After cutting, if the cross section of the stem is discolored, feels "mushy," or shows a hole (from a sawfly larvae), then cut lower. Given the harsh winter, you may need to prune the cane hard. Cut until the cane shows a solid end surface with no discoloration or holes. Then seal off cut ends by squirting a dab of Elmer's Glue-All or garden sealant, to protect against carpenter bees drilling into the cane.

Other types of roses are pruned differently. With **Miniature roses**, one may either scale down the advice for Hybrid Teas to a smaller plant, removing twiggy growth, examining canes and

branches individually, and cutting down to three or four main canes. Otherwise, one may prune the bush quickly, by running a large clippers over the top and sides.

For **Continuous-Blooming Climbers**, the main canes tend to be laid out horizontally or in an arching pattern. From bud eyes along the horizontal main canes, laterals will grow vertically, with flower stems along the laterals. This approach yields a "wall of color." (If climber canes only grow vertically, blooms develop only on the ends of the long canes.) When canes are laid out laterally, prune and thin out the vertical laterals. Remove twiggy growth and thin stems.

For **Once-Blooming OGR's**, that bloom on old wood, trim the bushes lightly to clean them up, but do not prune severely or you will have no blooms. (Once blooming antique roses are pruned *after* they bloom - say, in late June or July.) Remove any dead wood or crossing branches.

For **Large Shrub Roses like Knock Out**, be sure to prune hard and thoroughly every about three years, if not every year. We grow two red Knock Out rosebushes and two yellow Carefree Sunshine bushes at the front of the house (see photo). They are about seven feet high by five feet by three feet. They were trimmed but not pruned last year and one bush has two birds' nests. This year, I pledge to cut them back to about three feet to ensure continued healthy growth.



For all classes of roses, use sharp pruning shears. Rub with steel wool to remove rust. Sharpen blades on a cutting stone. Add oil if needed.

FERTILIZATION: Fertilizing provides the rosebush with the nutrients and "food" it needs to grow strong and healthy, to bloom well and often, and to ward off disease and insect problems. Even if you start off with great garden soil, as plants grow, they absorb nutrients and leave the soil depleted.

From history class, we remember that some colonial farmers, before much was known about soil chemistry or plant feeding, depleted the soil; later generations moved west to farm in new soil. As a counter example, if you visit Mt Vernon VA, you will learn that, in addition to serving as our Revolutionary War commanding general and first President, George Washington experimented with fertilizers and crop rotation to ensure soil health. See www.mountvernon.org/learn/explore_mv/index.cfm/ss/31/.

The fertilizers Washington used included manure, creek mud (with high tree leaf organic content), fish heads, marl (a chalky clay with lime), gypsum (which adds calcium and sulfur and loosens heavy

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SOIL NUTRIENTS FOR ROSES

by David Maxwell, CR

Interpreting your Soil Test Report

A soil test can be a valuable indicator of your soil's health. It shows the sufficiency of the essential nutrients, acidity, organic matter, storage capacity and base element nutrient balance. In this article I will provide some guidance in interpreting the numbers typically provided and the impact on your fertilizer program.

Soil Sample

Some test laboratories in the mid-Atlantic region are shown in Table 9 including Virginia Tech which offers a price break to VA residents, and A&L Eastern which is a reliable

Delaware	Univ of Delaware Soil Testing Prog 152 Townsend Hall 521 S. College Ave Newark DE 19717	302-831-1392 ag.udel.edu/
North Carolina	NCDA&CS Agronomic Svcs Div 1040 Mail Service Center Raleigh NC 27699	919-733-2655 ncagr.gov/agronomi
Pennsylvania	Agricultural Analytic Services Lab Penn State University Universtiy Park PA 16802	814-863-0841 aasl.psu.edu/
Virginia	Virginia Tech Soil Testing Lab 145 Smyth Hall Blacksburg VA 24061	540-231-6893 soiltest.vt.edu/
	A&L Eastern Labs 7621 Whitepine Rd Richmond VA 23237	804-743-9401 al-labs-eastern.com
West Virginia	WVU Soil Testing Laboratory PO Box 6108 West Virginia University Morgantown WV 26506	301-293-6023 caf.davis.wvu.edu

Table 9: Representative Mid-Atlantic Soil Testing Laboratories

commercial testing lab. To assemble a sample, take small amounts of soil from several places within the area in question. Since soil is not homogeneous, it is better to take many small samples than one or two larger ones. There can be substantial differences in pH and nutrient concentrations in points separated by as little as a few inches. Collect these in a clean bucket using a clean tool, mix together and dry thoroughly. A small sample from this bucket - approximately 1/2 cup - is sent to the lab for testing. Any of these labs can provide further information on collecting and sending a soil sample.

Plant Essential Elements

As by now my readers already know, there are sixteen (seventeen if you count nickel, as some do - more on that later) nutrients essential to plants for healthy growth (See Table 10).

The first three, H, C, and O are often overlooked but are in

fact the most important. They are obtained from air and water, and not generally considered in the formulation of a fertilizer program, nor, of course, are they included in a soil test report. The next thirteen elements are divided into two groups: six macronutrients, required in relatively large quantities, and seven (eight including nickel) micronutrients, required in trace quantities. Note that all the nutrients are taken up by the plant in the ionic form, except hydrogen, carbon, and oxygen. Boron is taken up both as boric acid (H_3BO_3) and in the ionic form as borate (BO_3^{3-}).

Element	Symbol	Form Taken in by Plants	
Nutrients from water or air			
Hydrogen	H	water	H_2O
Carbon	C	carbon dioxide	CO_2
Oxygen	O	water & oxygen	H_2O & O
Macronutrients from soil			
Nitrogen	N	nitrate & ammonium	NO_3^- & NH_4^+
Phosphorus	P	dihydrogen phosphate	$H_2PO_4^-$
Potassium	K	potassium	K^+
Calcium	Ca	calcium	Ca^{2+}
Magnesium	Mg	magnesium	Mg^{2+}
Sulfur	S	sulfate	SO_4^{2-}
Micronutrients from soil			
Iron	Fe	ferric	Fe^{3+}
Chlorine	Cl	chloride	Cl^-
Manganese	Mn	manganous	Mn^{2+}
Zinc	Zn	zinc	Zn^{2+}
Boron	B	boric acid & borate	H_3BO_3 & BO_3^{3-}
Copper	Cu	cupric	Cu^{2+}
Molybdenum	Mo	molybdate	MoO_4^{2-}
(Nickel)	Ni	nickel	Ni^{2+}

Table 10: Essential Elements for Plants

Nitrogen is taken up in two forms: nitrate (NO_3^-) and ammonium (NH_4^+), in the ratio of about 10 parts of nitrate to every part of ammonium. Small amounts of sodium are taken up by plants but it is not considered essential and can be toxic in large amounts. Nickel is used by plants in such small amounts that it was not discovered as essential until 1989. It is still not recognized by Virginia Tech as essential to plant growth. I have chosen to include it in the interest of completeness, although it doesn't affect the discussion.

Typical Soil Test Report

LAB TEST RESULTS (see Note 1)										
Analysis	P (lb/A)	K (lb/A)	Ca (lb/A)	Mg (lb/A)	Zn (ppm)	Mn (ppm)	Cu (ppm)	Fe (ppm)	B (ppm)	S.Salts (ppm)
Result	10.46	285	7715	787	19.3	23.4	0.4	14.8	0.8	
Rating	VH	H+	VH	VH	SUFF	SUFF	SUFF	SUFF	SUFF	

Analysis	Soil pH	Buffer Index	Est.-CEC (meq/100g)	Acidity (%)	Base Sat. (%)	Ca Sat. (%)	Mg Sat. (%)	K Sat. (%)	Organic Matter (%)
Result	6.5	6.26	23.7	3.5	96.5	81.3	13.7	1.5	

FERTILIZER AND LIMESTONE RECOMMENDATIONS

Crop: ROSES (212)

619. Lime recommendations: NONE NEEDED.

Fig 4: Virginia Tech Soil Test Report

Figure 4 is a sample soil test report from VA Tech. Note that not all of the nutrients are measured. Different labs may

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test additional elements, often as a cost option. VA Tech tests for the elements of primary interest. The results section of Fig 4 contains two tables: upper table, *soil nutrients* and lower table, *pH, storage capacity* (CEC - cation exchange capability) and *base element balance* (as % Ca, K & Mg). We'll discuss each of these.

Soil Test - Upper Table

The upper table reports the concentration of tested elements as well as a qualitative assessment of their adequacy to support the stated crop, in this case roses. Here the rating categories are L = low, M = medium, H = high, VH = very high, for macronutrients and DEF = deficient or SUFF = sufficient, for micronutrients. A rating of L indicates plants will presumably always respond to fertilizer applications of that supplement; for M, plants sometimes respond; for H to VH, plants usually do not respond. Unfortunately these measures were developed for the typical Virginia commercial product, and are a one-size-fits-all indicator. They are very good indicators for lawns but not very helpful for roses. Our roses require dramatically higher soil concentrations as shown in Table 11. So please ignore the qualitative ratings L to VH and go instead with Table 11. Now let's relate the test values of Table 11 to the Fertilizer Recommendations in Table 12. When your soil tests at the low end in

Element	Low	High	Units
P	250	1000	lbs/A
K	250	600	lbs/A
Ca	3000	10000	lbs/A
Mg	400	1000	lbs/A
Fe	15	60	ppm
Mn	15	40	ppm
Zn	5	20	ppm
B	0.5	1.5	ppm
Cu	0.2	2	ppm

Table 11: Ideal Soil Test Results

Nutrient	Amount
N	24 to 48 lbs per 1000 sq ft
P ₂ O ₅	14 to 28 lbs per 1000 sq ft
K ₂ O	16 to 32 lbs per 1000 sq ft
S	5 to 10 lbs per 1000 sq ft
Fe	10 to 20 lbs per acre - chelated
	45 to 90 lbs/acre - non-chelated

Table 12: Annual Fertilizer Recommendation

Table 11, adjust your fertilizer applications to the high end of the recommended range of Table 12. For example if your soil tests at P > 1000 lbs/A, backing off on your applications of P₂O₅ closer to the 14 lbs/1000 sq ft shown in Table 12, should yield quite acceptable results. Conversely, levels near or below 250 lbs/A will probably yield better results with applications of P₂O₅ near 28 lbs/1000 sq ft or higher.

Potassium (K), although classified as immobile, is slightly more mobile in soil than P, Ca or Mg and will therefore often test at the low end of the range shown in Table 11. In this event it is essential that your fertilizer program provide amounts of K₂O near the upper end of the Table 12 range: 32 lbs/1000 sq ft of potash (K₂O).

Calcium (Ca) and magnesium (Mg) are very immobile in soil and should be adjusted to proper concentrations in

the fall as pH is being corrected - calcitic lime for Ca and dolomitic lime for Ca & Mg. The absolute levels are not as important as the ratios of K, Mg and Ca. These ratios are provided in the lower table of Figure 4 as % base saturation - more on this later.

The range of levels of the minors in Table 11 are roughly representative of Virginia soils. Except for iron (Fe), they are normally present at sufficient concentrations for roses. However, with soil testing at the lower limits, one or two applications of a fertilizer with micronutrients is advisable, especially Fe.

Soil Test - Lower Table

pH has two measures: 'soil pH' and 'buffer pH'. Soil pH is the pH you would measure with a pH meter and is a measure of the number of H⁺ ions in soil solution. This is often referred to as 'active' acidity, as it is the acidity that the roots see and the one that affects nutrient availability.

Buffer pH is a measure of the number of H⁺ ions not in soil solution, but rather those attached to soil colloids (i.e., stored by the soil). This is often called 'reserve' or 'stored' acidity, because the stored H⁺ ions are available for release to the soil solution to resist changes in soil acidity. It acts as a buffer to changes in acidity. It is usually close to the soil pH, but can be slightly higher or lower. A soil with a high CEC (cation exchange capability) will store more H⁺ ions than a low CEC soil, and therefore have a higher buffer capacity. The buffer pH in combination with the soil pH is used to calculate the amount of lime recommended (bottom of the report) to restore the pH to 6.5. Some labs report only soil pH, e.g. A&L Eastern Labs.

CEC or cation exchange capability is a measure of the soil's storage capacity. This will vary depending on the soil type, from about 5 for sandy soils to 20 or more for clay soils. Now refer to Table 10 and note the elements with a positive valence (e.g. Ca²⁺, Mg²⁺, K⁺, Fe³⁺). These along with H⁺ are the elements stored by soil. The elements with negative valence (e.g. NO₃⁻, H₂PO₄⁻, SO₄²⁻) are repelled by soil and remain in soil solution.

The % acidity is the percentage of storage sites occupied by H⁺ ions and is just another way of stating buffer pH.

Base saturation (%) is the % of storage sites occupied by the base elements, Ca, Mg & K. These together with H (in % acidity) will total to nearly 100%. The only other nutrients with positive valence (called cations) are micronutrients, whose numbers are negligibly small. Note, N is not a factor, since by the time the test sample reaches the lab any NH₄⁺ will have been converted to NO₃⁻. The relative amounts of these three base elements is considered

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(Continued from page 6) Soil Test

by some to be important and is discussed further below as 'base cation balance'.

Organic matter (%) is available as an optional test. This typically ranges from 5 to 10 percent.

Base Cation Balance

The importance of the relative amounts of the bases (calcium, magnesium and potassium) in soil has received a lot of attention, dating back to research in the 1930s by Dr. Albrecht, former head of the soils department at the University of Missouri. His research claimed there is an ideal balance between the base nutrients as shown in Table 13, that absolute values are less important than the percentages, and any imbalance in one can be corrected by merely adding another. The 4% hydrogen corresponds roughly to pH 6.5 to 6.3.

Ideal	Element	Range
76%	calcium	65 - 85%
14%	magnesium	10 - 20%
6%	potassium	3 - 5%
4%	hydrogen	0 - 10%

Table 13: Base Nutrient Balance

The theory says that when imbalances among the cations exist the soil becomes very 'tight', impeding air and water circulation. Since Ca and Mg dominate they are considered most influential on soil conditions. As Ca drops below 65% and Mg creeps above 20%, the soil becomes excessively tight. These are considered heavy, unmanageable soils requiring excessive mechanical aeration. Golf courses and play grounds over significant parts of Virginia have endorsed this theory with apparently remarkable results, with previously compacted soils becoming loosened by balancing the base saturation elements.

However there is another school of thought that claims there is little correlation with crop quantity or quality over an extremely broad range of Ca:Mg ratio. For example, one study concluded: "for maximum crop yield, emphasis should be placed on providing sufficient but not excessive levels of each basic cations rather than attempting to attain a favorable basic cation saturation ratio which evidently does not exist".

This apparent conflict inspired a field trial study of five organic vegetable farms in Virginia and eastern Tennessee, where many cultivated soils show calcium base saturation below 65% with magnesium and/or potassium well above their recommended ranges. The study concluded that rebalancing base saturation ratios had no affect on crop yield, soil bulk density, moisture content or water infiltration rate when averaged over all the sites. However, some site specific trends did emerge. On clay-loam soil in the Blue Ridge foothill region, the high calcium treatment seems to have improved water infiltration and loosened subsurface hardpan. Conversely, the high calcium treatment apparently tightened hardpan and slowed water infiltration on a Tidewater sandy loam location. Ad-

ditionally, two loam soils in the Appalachian region which initially showed the best tilth remained excellent regardless of the calcium treatment. The fifth site with clay soil and a moderate Ca:Mg imbalance and severe hardpan at 4 to 12 inches with poor drainage, remained unchanged by the rebalancing of Ca & Mg. It was concluded that the answer is site specific with most soils not needing to conform to the Albrecht formula for base nutrient balance. Sandy soils may actually benefit from somewhat higher magnesium and potassium saturation levels. Finally, confirming other university studies on affects on crop performance, vegetables and agronomic crops thrived over a wide range of calcium and magnesium levels on all five sites. Also, in no case has adherence to the Albrecht formula (Table 13) caused poor performance; so adherence to the ideal balance of Ca:Mg:K ratio can never hurt and may help.

For our rose garden soils, applying appropriate amendments (e.g. organics, perlite, etc) are the preferred method of improving tilth. Controlling the Ca:Mg:K ratio can be largely ignored in favor of supplying sufficient levels of each, although maintaining the elements close to the range shown in Table 13 is recommended.

Soil Test Report

In summary, referring to the test report in Fig 4, we can make several observations:

1. P (1046 lb/A) is slightly high (see Table 11) as a result of applying fertilizers high in P₂O₅ over several years. This is OK, allowing lower applications of P fertilizer in the 14 lbs P/1000 sq ft range in the future.
2. K (285 lb/A) is at the low end of the range (see Table 11), requiring applications of K fertilizer in the 32 lbs K/1000 sq ft range, next season.
3. Mg is good - apply calcitic (not dolomitic) lime to correct pH.
4. Micros are good, although some Fe may be beneficial, next season.
5. pH is good, and although the report doesn't call for lime, some lime (calcitic) is required to raise the buffer pH reading of 6.26 to the 6.5 to 6.6 range. A buffer pH below 6.5 will tend to bring the soil pH lower as well.
6. CEC is great, indicating high levels of clay and/or organics.
7. Base saturation is alright, although %K is below the 3% lower limit of Table 13. Applying fertilizer levels of K₂O in the 32 lbs K/1000 sq ft range the following season will compensate for this.

Appendix

Converting lb/A to ppm: Notice in the Figure 4 test report that the quantity of nutrients is measured in lb/A (pounds per acre) for macronutrients, and ppm (parts per million) for micronutrients. The instrumentation used by VA Tech to measure element concentrations actually provides the

(Continued from page 7(Soil Test)

results in ppm units for both. The lab reports in ppm for micronutrients and multiplies the results by 2 when reporting the macronutrients to yield lb/A. The widely accepted conversion is 2 lb/A = 1 ppm.

Soil Testing laboratories mix a liquid chemical extractant with the soil sample to aid in the release of elements from the soil's storage sites. A spectrometer is then used to measure the amount of each element in solution. The resultant concentration of elements will vary between laboratories depending on the extractant used, the ratio of extractant to soil sample, the soil type, the mixing method (stirring vs shaking), and the duration of the mixing. The predominate extracting solutions in use in the mid-Atlantic are Mehlich-1 and Mehlich-3. Mehlich-1, a simple dilute solution of hydrochloric and sulfuric acids, is used by Virginia Tech and West Virginia. Mehlich-3, a mix of acetic acid, ammonium nitrate, nitric acid, ammonium fluoride and EDTA, is used by University of Delaware, North Carolina and Penn State,

VA Tech - Mehlich 1

Analysis	P (lb/A)	K (lb/A)	Ca (lb/A)	Mg (lb/A)	Zn (ppm)	Mn (ppm)	Cu (ppm)	Fe (ppm)	B (ppm)
Result	834	356	7564	733	15.2	33.3	0.3	14.7	1.0
Rating	VH	VH	VH	VH	SUFF	SUFF	SUFF	SUFF	SUFF

Soil	Buffer	Est.-CEC	Acidity	Base Sat.	Ca Sat.	Mg Sat.	K Sat.
pH	Index	(meq/100g)	(%)	(%)	(%)	(%)	(%)
Result	7.0	N/A	22.3	N/A	100.0	84.5	13.5
							2.0

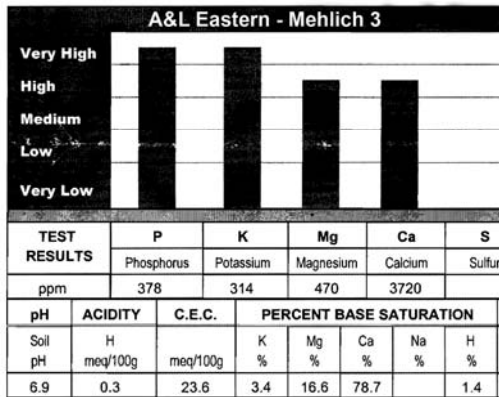


Fig 5: Mehlich 1 vs Mehlich 3

as well as some private labs. Each lab fine tunes its specific procedures and extractant based on soil types in the region, making it difficult to compare the results from different laboratories. To illustrate the difference an extractant makes, I sent identical soil samples to VA Tech (Mehlich 1) and A&L Eastern (Mehlich 3). Figure 5 shows the results. After converting lbs/A to ppm (for VA Tech), notice P = 417 (834 lb/A) ppm vs 378 ppm, K = 178 ppm vs 314 ppm, Ca = 3782 ppm vs 3720 ppm and Mg = 367 ppm vs 470 ppm for VA Tech vs A&L Eastern, respectively. Close but no cigar, especially for K and Mg. The pH results are close however.

Please send questions to davesroses@yahoo.com

(Continued from page 4) Rose Care

clay soil), and “green manure” (where buckwheat, clover, and pea stalks were ploughed under). While his Mt. Vernon plantation grew mostly agricultural crops (i.e., wheat, corn, potatoes, buckwheat, oats and rye), near the mansion, in the Upper Garden, were rose beds. One of the roses Washington grew was Old Blush (photo), the repeating pink China. Perhaps he applied fertilizer to the roses.



In current times, in metropolitan Washington DC, most rose gardeners begin to fertilize after the rosebush has put out some green growth, which tends to be early April. As is well known, fertilizers are labeled by their primary chemical nutrients as NPK, for nitrogen (N), phosphate (P2O5), and potash (K2O). Nitrogen supports overall green plant growth; phosphorus increases root development and flowering ability; and potassium promotes vigor and aids the plant's defenses against cold, drought, and disease.

I grow about 75 rosebushes which are a mix of floribundas, Hybrid Teas, OGRs, shrubs, and minis and minifloras, with three climbers. In early April, I weed and clean up the rosebeds. I check the soil with a pH meter. Rosebushes like a pH of 6.5 to 6.8. If pH has fallen and become acidic, I add up to a cup of lime to the fertilizer mix to increase pH and make the soil more basic.

My fertilizer mix for each full-size bush is 1.5 cups of Osmocote 98605 from the Country Store (18-5-12), about two cups of Mills Magic Mix (6-5-1), one tablespoon of Epsom Salts (for magnesium and sulfur) and two tablespoons of gypsum (calcium and sulfur). I pro-rate the applications, with half for minis and more for climbers.

Note that Osmocote is long-lasting and time-released, so one application provides nutrients through October. Mills Magic Mix is organic with trace nutrients and its duration is about seven weeks. About two weeks before the Spring Rose Show, in mid-May, I fertilize with a liquid inorganic like Miracle Grow for Roses (18-24-16) or Jack's Classic 20-20-20, using a hose-end sprayer. Water well the day before.

Although some gardeners fertilize in June, I tend to let most of my roses “rest” then. By early August, I fertilize again with two cups of Mills Magic Mix per bush. During September, I spray once or twice with liquid inorganic fertilizer, as a booster before the Fall Rose Shows. To learn more about soils and fertilizers, see the excellent series “Soil Nutrients for Roses,” by our own Dave Maxwell, including especially the Jan-Feb 2011 article, summarizing plant needs and a broad range of fertilizer contents.

(Continued on page 9)

BILL'S ROSE NOTE BOOK



by *Bill Blevins*

ARF Consulting Rosarian

Winter has been long and very cold. Dec./

Jan. well below normal, about 6° under in January.

February will probably be slightly below normal,

raised only by the 65°-75° warm-up the last few days of February. Heavy wet snow w/ice caused extensive damage to shrubs and trees. Dogwoods, lilacs, crepe myrtle and similar types had many split limbs. Close inspection showed most were weakened considerably by the 17 year cicada visit a few years ago and the interior damage to the tissue layers was far too much for the plants to shrug off. Nature's way of removing the weak for the long term survival of the strong. Roses fared fairly well w/as much weight from ice the canes were asked to bear. Prune and tidy things up, a couple years of good growth and all will be as well as hoped for. If winter damage is to show up in the rose, mid-March and early April will surely expose it. Prune climbers, shrubs and miscellaneous types first. No need to wait. Last week of March and early April is best time for HT, GR, Flor. I do mini types the same as a small HT or Flor. whether I do 10 or 100. Hedge clipping any roses will not pay off in the long run. Too many stubs and dead end growth left.

The Jan/Feb 2011 American Rose Magazine corrects the code name for John Smiths **Jacqueline Powers** HT rose. This velvet red, well-formed beauty (the rose) is now coded as Silpampow. Why are code names important? That is actually the official name of the rose. The correct Show name is listed in several publications sanctioned by the ARS, but many times that same rose can be sold under multiple names (synonyms) even by the same supplier. Jackson & Perkins (as if they don't have enough logistic problems right now) in recent years has offered **Jadis** as "Fragrant Memory"; **Diana, Princess of Wales** as "Elegant Lady"; **Cesar Chavez** as "Beloved." **Habitat For Humanity** seemingly has had more name changes than homes built this year. Even some code names are misleading - sometimes listed in close but not accurate corruptions of spelling. Recent consumer reviews on the Internet have been plentiful and not very complimentary for J&P. .

I was checking the latest winners on RoseShow.com and was curious about **Fairest One** which was a HT Court

winner. The following reflects information gathered from the J&P/internet info (reading across rows represents synonyms for the same rose):

J&P Wine & Roses Series	Code Name	Disney Princess Rose Coll
Champagne (Flor.)	JACjeste	Beauty Within (Flor.)
J&P Rosé (HT)	JAConoeu	Loves Kiss (HT)
Merlot (HT)	JACsomed	Fairest One (HT)
Cabernet Sauvignon* (HT)	JACgedor*	*

*-Cabernet Sauvignon, listed in the 2011 catalog as a J&P exclusive, was under a 2006 test panel code name and is reportedly the older HT rose **Heirloom** which seemingly has been around longer than Father Time. **Heirloom** already has a code name, JACbloom. Keep in mind this is internet chatter with some J&P interaction, which does leave some questions unanswered. I assume all this will sort out? Thought for the day, week, month – The more things change the more they stay the same. Amen!

And just as I was about to conclude this article, this just in: HT – **Spellbound** (JACpribe) int. 2006 as J&P R.O.Y. is now sold as Mesmerized (H.T.)

(Continued from page 8) Rose Care

DISEASE AND PEST CONTROL: To prevent fungus disease on roses, the prudent rose gardener will water in the morning or early afternoon, so leaves can dry off by evening. Trim branches to encourage good air flow.

However, in hot, humid Washington DC, the gardener may want to implement a chemical spray program to prevent fungus diseases like blackspot, powdery mildew, and botrytis. . For example, once blackspot fungi infect a rose leaf, there is no cure. Each of the spots, a half inch or so in diameter, contains hundreds of spores, which can fly to a new leaf to attack in a continuing cycle. Prevention is key. Pick off bad leaves and spray fungicide about every ten to fourteen days. Always follow label directions.

Insects tend to grow more active in the rose garden by mid to late spring. Many insects are beneficial, while some are destructive. Beneficial insects like ladybugs eat mildly destructive insects like aphids.

Rosarians who want stricter insect pest control might spray an insecticide. Spray insecticides only as you see problem insects, while fungicides are sprayed on a preventative basis. We will explore fungus disease and fungicides further in the next newsletter. We will discuss insects, mites, and pest control at the same time. For more immediate advice, contact a Consulting Rosarian.

In the meantime, smell the fresh air! Spring and beautiful roses are coming.

(Continued from page 1) *QUEENPOWER*

stemmed beauties and join that elite group of Queen of the Show winners.

Having spent the winter reading every rose book at three libraries and ordering several rose catalogs, I ordered a number of bushes. But something became very obvious after a couple of growing seasons. All the varieties offer something, but to be a serious exhibitor and competitor, your chances of winning are increased considerably if you are growing the right roses. I heard it more than once and it was sinking in: "To show 'em you gotta grow 'em." Those with *QUEENPOWER*!!!

As I worked my way up the ladder, I soon picked up a Queen with **Swarthmore**. I was delighted, but it was a small show, and even I had seen better at some of the bigger shows. I wanted a memorable Queen like some of the big exhibitors were growing and showing. A District Show was coming up that fall. Here was the opportunity for the big impact. To me it seemed like the Super Bowl, World Series, and Stanley Cup of Rose Shows. And, suddenly...swiftly...as if without warning...it happened – *QUEEN* – with **White Masterpiece**. Others soon followed – **Red Devil, Pristine, Garden Party, Honor, Pristine** and **White Masterpiece** again. The judges must be suckers for those whites...nothing to this stuff!

I eagerly waited for each issue of the *American Rose* magazine to check the latest show results and to make sure I kept up with all the big winners. I vividly remember a picture of Steve Rulo holding **Prima Ballerina** – got to try this one. I was becoming chummy with several noted rosanans, and Jim Borst of Eastern Roses, a small New Jersey firm, claimed to have a good selection of **Prima Ballerina** – excellent indeed! It turned out a Queen in short order.

But, all good things must come to an end. Severe winters and late spring freezes seemed to single me out –8 foot **Pristine** bushes became a memory. As fellow exhibitors watched my success, they promised revenge (in a friendly manner, of course). They promised to get me, and they did. The curse became reality. Queens became Kings, then Princesses and so on. Winning the open bloom suddenly seemed like a major accomplishment. But other exhibitors had now reached the pinnacle they had long lusted for. Many won again and again, refusing to relinquish their reign. They had become a victim of *QUEENPOWER*. I was happy for them.

As the early eighties progressed, I decided to become a judge. I'd heard they were a rather fickle group – aliens perhaps!?! – put on this planet just to prey on hardworking rose exhibitors. But, they turned out to be a great bunch and were real people too. Perhaps it was easier to pick a Queen than to grow and show one. As I am now both a judge and exhibitor, I've found out it can sometimes be a difficult fence to straddle, but each side is rewarding in its own way.

In the late 1970s and especially through the 1980s, a strange phenomenon seemed to be establishing itself. Other exhibitors and judges shared my opinion somewhat. Certain varieties seemed to dominate the Front Table awards. Of course

many, if not most, were worthy. but your chances were increased considerably if that variety was presently very popular, or shall we say "in vogue." No matter how good on a given day, **Kordes' Perfecta, Papa Meiland** or **Chrysler Imperial** seemed doomed to be blue ribbon spectators.

Pristine, Touch of Class, Uncle Joe and **Keepsake** became dominant in the winners' circle. Pristine I could grow, but I've never grown the other three very well. **Lynette** and **Nightingale** seemed to rule the Southern shows while **Portland Trailblazer** (aka "Big Chief" for a while) racked up points in the Northeast. **Bride's Dream** replaced the tender **Royal Highness** in many gardens as it made its show presence known. As plants became available **Crystalline, Suffolk** and **Dublin** seemed to be dominating the 1990s.

Exhibiting has also changed in another significant way. Having now seen shows on the local, district and national level, the way roses are transported and brought to the show is amazing. Gone are the old days of buckets and more buckets. In recent years those potential Queens have arrived in coolers and customized boxes of all shapes and sizes. Some have the look of streamlined models with different cooling layers and thermometers on all sides, fancy logos, and a seemingly endless supply of potential Queens seems to come out of every container. At some future rose show I wouldn't be surprised to see a self-propelled cooler come rolling in with a remote controlled rose-fetching robot!! Actually, my 20-year-old cooler and I are just jealous!

With one show to go, I've been most fortunate to take Queen with **Suffolk** and **Dublin** (one which has proved difficult for me to grow and show in the past, while others have reveled in its glory). I almost feel indebted to send Astor Perry a Christmas present for his fine hybridizing efforts.

What will be our *QUEEN POWER* roses in the future?

Touch of Class, Crystalline, Dublin and **Suffolk** are still very much the choice of many. But, can **Louise Estes, Spring Break** and **Signature** join their ranks? Probably, especially if quality plants become reality and not a passing fancy.

Is winning Queen easy? Is it hard? One thing for sure – **IT'S ONLY ONE ROSE AWAY!!!!**



Rosebush Pruning

Monday, March 14 - Saturday, March 19, 2011

Brookside Gardens,

1800 Glenallan Av, Wheaton, MD

Head rose gardener Roger Haynes is pruning over 1,000 rosebushes. Phone him at 301-962-1400 or 301-962-1419 to say when, Mon-Sat, you can come help. He will give directions and set you to work!

A Rose Society Problem with Some Possible Solutions

by Michael Berger, PRS Master Consulting Rosarian

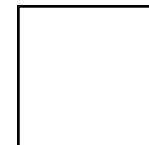
The Problem. Most rose societies throughout the United States, including their parent organization, the American Rose Society (ARS), have lost members during the past few years and have fewer and fewer members attending monthly meetings. The Potomac Rose Society (PRS), unfortunately, is no exception to this trend. We have heard many reasons for this trend but only a few suggestions on how it might be reversed. Ted Mills, (a/k/a Rose Doc) wrote an excellent article on this subject in the January/February issue of the *American Rose*, the official magazine of the ARS, and offered some suggestions on how this trend might be reversed (see below).

A Phenomenon. Fortunately, the problem described above is not universal. One example of a society that has managed to avoid this situation is the Uruguayan Rose Association (AUR), a national and local rose society that has approximately 175 members in the capital city of Montevideo and additional members in four affiliates in the interior of the country. The AUR in Montevideo holds meetings one morning a month which are attended, on the average, by 70 members and a few guests. The subject matter of these meetings is very similar to those of rose societies in the United States. As a frequent visitor to Uruguay and an AUR member, I have attended many of these meetings. AUR members are very proud of their affiliation and being an AUR member has a distinctive “cachet” in this country. Many members wear AUR pins on their lapels, both at AUR meetings and at other events they attend, and have AUR decals on their cars. AUR Presidents have stressed the need for AUR members to recruit new members both at monthly meetings and in private conversations with other members. Like most rose societies worldwide, the AUR sponsors a yearly rose show, usually in well known hotels. These rose shows, which receive publicity in the local media, are attended by many persons who are not AUR members and some of them decide to join the society as a result of what they have seen at the show and in conversations with AUR members. These shows have similar exhibition classes as US shows but one big difference is the awarding of many perpetual silver, silver plate, and pewter trophies. AUR members are proud to have their name and the year they won the trophy engraved on it. Some of these trophies are awarded on a permanent basis to an individual who has won the trophy three or four times. In such cases, a new trophy for the same class is usually available at the following year’s show. Ribbon cards are also awarded in each class.

Some Possible Solutions. I believe that one way the PRS can at least preserve its current membership, possibly increase it, and have more of its members attend monthly meetings is to stress and educate its membership on the spectacular history of our rose society, the prestige which it has enjoyed in the ARS and the ARS’ Colonial District over the years, and the assistance PRS members have given to local, regional, and national activities in the world of roses. The objective is to have PRS members be proud of their membership and encourage them to recruit additional members for the society. I also believe that PRS membership pins and car decals can help publicize the society and demonstrate the pride PRS members have in it. We all are aware that one reason people join a rose society is to learn more about roses and how to grow them successfully. This is certainly a path to continue to pursue in organizing PRS monthly meetings. However, we are increasingly aware that much of the information provided at these meetings is available online and in the local media and many of our members and potential new members feel that there is no need for them to drive a half-hour or more to attend a meeting that provides information they can obtain at home from their computer. I believe we need to provide our members at these meetings with information they cannot easily obtain on line, such as the identification of new roses and their value, and have some of our experienced members discuss current rose growing problems and how to solve them. We should also stress the camaraderie that the PRS offers to its members, i.e., each meeting should just not be an educational forum but also a social event with people who share the love of the rose as a common interest. I also believe we should reverse the current trend away from perpetual metal trophies and increase their number as awards for specific general exhibition classes, not just for the Challenge Classes as exists at this time. While in the past, many of the winners at our rose shows claimed they were tired of having to return an engraved trophy every year, I suspect they have accumulated enough glass and ceramic vases, plates, and ice tea pitchers and might not object to having for a year a beautiful metal trophy with their name engraved on it. I believe this is especially true for most of our membership who do not have a collection of trophies in their homes. As noted by Ted Mills in his article, “rosarians must be cognizant of the fact that rose shows give recognition to participating members. It is the only way of publicly advertising our hobby.” I also agree with Ted’s comments “that shows held in busy shopping centers provide ready access to membership acquisition.” Perhaps we should also consider having more exhibition classes at our shows restricted to newer members who are not yet champion exhibitors as Ted also suggests. I know that it is very difficult in our area to obtain the necessary permission to hold rose shows in hotels or shopping centers but perhaps it might be worthwhile to make an extra effort to investigate these possibilities and balance the cost versus eventual gain.

The Capital Rose
831 Azalea Drive
Rockville, MD 20850-2018

First Class



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Sunday, May 15, 2011

Joint ARF/PRS Tour of Dumbarton Oaks

Don't miss this opportunity for a private guided tour of one of Washington's premier rose gardens. This tour is a special concession exclusively for ARF/PRS members and guests. The normal admission fee is being waved. Many may also want to tour the residence which contains a stunning collection of Byzantine and Pre-Columbian art. This is also free. We are also planning a picnic at an adjacent park. Food and drinks will be provided. For those attending the picnic, there will be a nominal \$10 fee per person. Reserve this date on your calendars and stay tuned for further details.

Saturday & Sunday June 4 & 5, 2011
Arlington Rose Foundation's Annual
Spring Rose Show
Merrifield Garden Center

Thursday, June 16, 2011

Potomac Rose Society
Monthly Public Meeting

Speaker and Topic to be announced
McLean Governmental Center,
McLean, VA

Sunday June 26, 2011, 2:00 p.m.
Arlington Rose Foundation
Summer Care Clinic

Bon Air Memorial Rose Garden,
Arlington, VA

ARF Consulting Rosarians

Learn how to care for your roses during the hot summer months.