



**WINTER/SPRING
2009**

VOLUME 2009 ISSUE 1

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Upcoming Events

Tenarky District
Winter Workshop
February 20-21

Consulting Rosarian
School
February 22

Bowling Green, KY

Bigger and Better Than Ever

The 2009 Tenarky District Winter Workshop will be held at the familiar Holiday Inn Convention Center in Bowling Green, Kentucky from February 20-22.

With a great set of programs and speakers, this year's workshop promises to be the best yet. Five programs will be presented during the day. Ed Griffith will kick things off with "The Wonderful World of Roses." He'll be followed by Jolene Adams telling us about the "Myths and Monsters of

the Rose World." The emphasis will shift to arrangements as Bill Carlson will teach us about the "Mechanics of Design." After lunch, Jim Delahanty will educate us on the oft neglected class of "Polyanthas." ARS Executive Director Jeffrey Ware will then give us a "Report from Shreveport." After these programs, there will be a District meeting and a chance to "Quiz the Candidates." Jolene Adams and banquet speaker Bob Martin, candidates for ARS

Vice President, will field your questions and lay out their visions for the future of the society.

After the banquet, roses will be auctioned. This is the main source of income for our district, so please plan to attend.

On Sunday, there will be a Consulting Rosarian School for those who wish to achieve or maintain their accreditation.

More details appear throughout this newsletter. See pages 14-15 for schedule and registration information.

Double Silver and Master Rosarians

Kudos to the 2008 winners of the Tenarky Silver Honor Medal Award. Voting resulted in a tie between Martin Skinner and Roy Guthrie, both of Tennessee. Martin Skinner wrote, "Thanks to the Holston Rose Society for their support over the years, and special thanks to Dot, my

spouse of the past 62 years. She has encouraged me, given me suggestions, supported me in all I do for the rose society, and proof read all my attempts at publication. Thus, the medal is really to both of us."

Master Rosarians named during the year were Louis Mishu, Don



Wear, and Sonia Richardson. We regret to report the passing of Louis shortly after receiving his award.

By Kent Campbell

Director's Column

Greetings to all Tenarky Rosarians. I must say that one of the things that keeps me going through the drab days of winter, besides the love and thoughts of family and friends, is anticipation of another rose growing season. In my mind's eye I will have the most glorious garden in my history as a rose grower this year. Isn't it fun to dream!! It lightens the work facing us this spring. Yes, roses can uplift the human spirit, even in daydreams! I have had the opportunity to review the list of roses that will be presented at our Winter Workshop Auction this year. They include the latest releases of both Weeks and Jackson & Perkins.

Other "work" facing Claire and me as time moves into the new year is the Winter Workshop on February 20-21. On tap: a superb line-up of rose talent, all of whom but one will be first time presenters at Tenarky. A complete description of the event and its participants is included in this issue of *Katnips*. This summer's national convention will be in Vancouver, Canada, and may not be in your plans. Why not make the Tenarky Winter Workshop your rose trip of early 2009?

Another subject which must be mentioned herein is the triennial elections. This spring you as a member of ARS will be asked to vote for three important offices. Robert Martin, Jr. and Jolene Adams, the two announced candidates for national vice president (president elect after three years)

will be in attendance at our winter workshop. You will have the opportunity to meet, chat with, and hear each of these outstanding rose individuals appeal for your vote. The last national presidential election was decided by fewer than one hundred votes. It is so very important that all ARS members vote.

The candidate for your next District Director is Dr. Sam Jones of Nashville. So far, he is unopposed. However, a nice vote will be a way to welcome this outstanding candidate and his wife to the difficult job he faces.

The Regional Director position is different. Each state in Tenarky is in a different region. Jack Walter will continue as Region Seven (Arkansas) Director. Kitsy Mostellar will have finished her six years as Region Three Director. The candidates for that office are not known at this time. And, as announced in another column in this newsletter, I am a candidate for Region 4 Director, representing Kentucky.

For last in this column, I have saved the presentation of some bad news and good news. First, the bad news. As many of you know, the ARS has a considerable amount of money tied up in trust funds. The income from the investments allocated by these funds, as you might guess, is very important to the ARS operation, especially the Maintenance Endowment which covers most expenses involving building and gardens.

When the national economy went South this fall and winter, these trusts lost heavily in value, and less value equals less income. I am one of the three trustees of the smallest trust, Research Endowment. Its highest value before the economy problem was about \$200,000. However, the low point to date showed a value loss of 29%. I image the other trust losses were similar.

Finally, some good news. Our national society is debt free. The borrowing from banks that was needed to see the ARS through the previous few years has been paid. This has been essentially the good work and astute fiscal management of our current executive secretary, Jeff Ware. We all owe him our most sincere gratitude for a job well done.

By the way, Jeff is scheduled to be at our Tenarky Winter Workshop in February.

Happy New Year, one and all!

Consulting
Rosarian
School

February 22

Forms, requirements, and information are available at

www.tenarky.org

Diabrotica is NOT a “Lady”

Diabrotica is a widespread genus of beetles, sometimes referred to as **cucumber beetles** or **corn rootworms**, in the family Chrysomelidae. Members of this genus include several destructive agricultural pest species. Corn rootworms are one of the most economically destructive corn insects in the United States.

While the western spotted cucumber beetle and the western striped cucumber beetle occur throughout California, the **spotted cucumber beetle** (*Diabrotica undecimpunctata*) is a major agricultural pest insect across the nation.

DESCRIPTION OF THE PESTS

Adult beetles are greenish-yellow with six large black spots on each wing cover. They are about a centimeter long (about 1/3”). In the adult form it eats and damages leaves of many crops, including cucumbers, soybeans, cotton, beans and also many ornamentals.

In the yellowish and wormlike larval form, which is known as the **corn rootworm**, it tunnels through the roots of young plants, stunting or killing the growing plant.

Cucumber beetles over-winter as adults and are active beginning in early spring. Adults lay eggs at the base of plants. As soon as they hatch, larvae begin to feed on plant roots. They complete their development in the soil. There are about three generations a year.

Cucumber beetles fly readily and migrate into cultivated areas from al-

falfa and other crops and from uncultivated lands.

MANAGEMENT



Cucumber beetles are attacked by a variety of natural enemies, the most important being a parasitic tachinid fly, *Celatoria diabroticae*. In the garden, chemical treatment is rarely required to control cucumber beetles. Simply picking them off and crushing or drowning them will keep the population from getting out of control. In agricultural situations, pesticides must be used.

Cucumber beetles like moisture and dislike heat, so you will see them in your garden in shady areas where there is pollen available, or landing on leaves and flowers after irrigation.

DAMAGE

Holes in tender leaves and flowers, stamens attacked.

by Jolene Adams

A “Climbing Habit”

There are a lot of roses sold to us as climbers that really aren't ... and you may have some of them in your garden! Roses that climb

are found in all classes of roses. So let's define some basics so we all know what we are talking about.

CLASS – Roses are classified by the American Rose Society. They are placed in certain groups that are more or less similar in growth characteristics, in ancestry, or in date of origin. There are only three (3) big groups of roses:

Species Roses –

these are the original “wild” roses, and their immediate progeny. They are usually “single” blooms (meaning they have 4-8 petals.) They only bloom once each year. They always have a Latin name which is shown in *italics*. If you plant the seeds of these roses, they will grow into plants that look exactly like their mother. Examples of these roses are *Rosa foetida bicolor* (Austrian Copper.) *Rosa banksiae* (Lady Banks' Rose) or *Rosa gallica versicolor* (Rosa Mundi.)

Old Garden Roses –

Old Garden Roses are the kinds of roses that existed before 1867, when the rose breeders began producing the modern types of roses. 1867 is the year of introduction of the first Hybrid Tea rose. There are several classes of roses in this group. Some of the roses are very old and some are as new as last year – but all of them belong to a class of roses that were in exis-

(Continued on page 4)

A “Climbing Habit”

tence before 1867. Many of these roses will re-bloom. Examples of these roses are Madame Hardy (a Damask rose from 1832, Charles de Mills (a Hybrid Gallica from before 1746), and Mermaid (a Hybrid Bracteata from 1918.)

Modern Roses –

These are the kinds of roses developed from the advent of the Hybrid Tea (1867) and afterwards. There are many classes in this group and most of them are repeat bloomers. Here is where you find the Miniatures, Hybrid Teas, Floribundas, Polyanthas and our popular modern garden roses. Examples are Gemini (a Hybrid Tea), Betty Boop (a Floribunda), Glowing Amber (a Miniature), Outta the Blue (a Shrub) and Altissimo (a Large-flowered Climber.)

There are climbing roses in all three of these large groups, but not ALL of them are in the class designated for the ‘true’ climbers. For example, climbing miniatures

like Ruby Pendant and Klima are NOT climbers. We say they have a “climbing habit.”

They are still miniatures (even if they can grow over 10 feet tall) and they are entered into rose shows along with all the other miniatures. Likewise, the climbing mutations of our popular Hybrid Teas and Floribundas and Shrubs (like Cl. Peace, Cl. Iceberg, Dreamweaver and Westerland) are NOT climbers, they just have a “climbing habit.” They are still Hybrid Teas and Floribundas and Shrubs.

So what IS a climber? There are just three (3) classes of roses that are considered “the real deal.”



Large-flowered Climbers are a class of modern roses. They can all trace their ancestry back to an old climbing rose from China – *Rosa gigantea*. When this old

rose was crossed with other types of roses, the resulting progeny often grew very tall and had stiff, large canes. They were put into the class of the Large-flowered

Climbers. In the *ARS Handbook for Selecting Roses*, they are listed with LCI after their name.

Be sure to look up the name of your climbing rose in the Handbook. If you see LCI after the name – it’s a real climber. If you see Cl HT, Cl F, or some other class designation after the name – it belongs to THAT class – it is NOT a climber.

Hybrid Wichurana is another class of modern roses. They can all trace their ancestry to the original rambling rose – *Rosa wichurana*. These roses are ALSO considered to be climbers. You will see HWich after their name in the Handbook. They can be shown in the Climber Class at an ARS Rose Show.

Hybrid Gigantea is the third class of modern roses that are considered to be real climbers. There are only a very few of them (you probably don’t grow any of them.) These roses are very large – they are ALWAYS very tall climbers.

Here is a list of often seen Large-flowered Climbers:

Clair Matin	Royal Sunset	Dublin Bay
City of York	New Dawn	Altissimo
Newport Fairy	Compassion	America
Rosarium Uetersen	Don Juan	Rhonda
Galway Bay	Excelsa	Handel
Pierre de Ronsard (Eden Cl)	Belle Portugaise	Fourth of July
Dorothy Perkins	Alberic Barbier	Sombreuil
American Pillar	Crimson Shower	Gardenia
Minnehaha	Sanders White Rambler	May Queen
Seagull	Berries ‘n’ Cream	Golden Showers
Polka	Social Climber	Pearly Gates
Blaze	Royal Sunset	Spice So Nice
Soaring Spirits	Dynamite	Parade

Tigers in the Garden



Striped roses, although not common, have been around for a long, long time, but seem to have rekindled the interest of the buying public in the last 15 years or so. Roses are usually solid colors, smooth blends, or definite bi-colors with one side of the petal being different in color from the other side. But stripes? Suddenly we are seeing more and more of them.

changed, and that change is inherited by the offspring. Mutations can occur naturally or be caused by radiation, chemical manipulation, etc.

Striping in flowers can be

- genetic - the genes to express color and pigment disposition are passed from parent to offspring
- induced by a virus - notable in the masses of modern striped tulips and camellias. Some botanists think that the striped gallicas so acclaimed in the nineteenth century have virus-induced stripes. Heat treatment is used to drive out virus in plants. When a striped rose bush is subjected to heat stress (100 deg. F for a length of time on a heat chamber) the opening blooms have no stripes - normally a sign that the virus is being driven down into the lower part of the bush and out of the blooms.

Rose	Type	Color	Year	Hybridizer
Honorine de Brabant	B	pb - pale lilac-pink, spotted and striped mauve and crimson	1840 (about)	
Rainbow	T	pb - striped carmine and blush	1889	Sievers
Roger Lambelin	HP	rb - bright crimson fading maroon, margined white	1890	Schwartz
Vick's Caprice	HP	pb - lilac-rose, striped white and carmine	1891	Vick
York and Lancaster	D	pb - blush white striped light pink	1867 (before)	(sport of R. damascena)
Variegata di Bologna	B	rb - white, striped purplish	1909	Bonfiglioli
Ferdinand Pichard	HP	rb - striped pink and scarlet	1921	Tanne
Roger Lambelin Striped	HP	rb - deep maroon to pink stripes on white	1953	Hennessey

Some of the great heirloom roses with stripes are mosses and damasks with faint striping and mottled edges on a pink background, gallicas in lighter or deeper tones with stripes and splotches, chinas with flecks and blotches, and the bourbons and hybrid perpetuals.

striped roses as sports of familiar roses. Ralph Moore began working with striped seedlings and finally introduced 'Stars 'n' Stripes', the progenitor of many of our modern striped beauties. What a sight an entire garden of striped roses would be!

Modern hybridizers have found

Rose	Type	Color	Year	Hybridizer
Soaring Spirits	LCl	pb - pastel pink, yellow & cream stripes	2004	Carruth
Life Lines	Cl Min	or - orange-red striped white	2004	Sproul
Moore's Striped Rugosa	HRg	rb - red/white stripes	2004	Moore
Tigress	Gr	m - striped with red-purple and white	2005	Zary
Alfred Sisley	S	ob - orange and pink stripes	2005	Delbard
Candyland	LCl	pb - rose pink with yellow-white stripes	2006	Carruth
Memphis Music	MinFl	rb - dark red and yellow stripes	2006	Wells
Julio Iglesias	F	w - white striped faint pink	2007	Meilland
Rock 'n' Roll	Gr	rb - dark & light red with white stripes	2007	Carruth

- through mutation - suddenly the normal pigmentation of the petals

A Rose-E-IQ

The Rose is the most beautiful flower in the environment, and rose bushes have diverse uses in the green landscape. But the public's interest in rose gardening is changing. Americans continue to love roses, but many now want to grow them in an environmentally responsible manner. This changing attitude has led to a growing interest in sustainable rose gardening.

Sustainable rose gardening is managing our gardens with minimal effects on the environment. A sustainable rose garden is one that is adapted to and managed without extraordinary demand for chemicals and care while maintaining a healthy balance and emphasis on healthy soil. It is somewhat different from what has become known as "organic gardening," with its emphasis on natural approaches to feeding and pest control. This emphasis is good, but we have also learned that "natural" does not necessarily mean "safe" and that nature itself produces many highly dangerous chemicals. A healthy balance also implies that we scientifically weigh the environmental risks and benefits of any gardening practice without regard to whether it is "natural."

"The Truth About Organic Gardening"

This latter point is emphasized in a recent and interesting book by Jeff Gillman, titled "The Truth About Organic Gardening." Dr. Gillman is an associate professor of horticultural science at the University of Minnesota and holds a doctorate in horticulture as well as a master's degree in entomology. Although he is largely in favor of organic gardening, he believes that organic gardening should be about making safe and smart choices such as reducing the use of pesticides and increasing the use of

mulches and compost. He is also concerned that it has come to mean making "natural" choices, include the acceptance of natural pesticides with significant problems. In this book, he considers over 100 gardening products and practices – organic and synthetic – and examines each to determine whether it is safe and effective.

The EIQ

In evaluating pesticides, Dr. Gillman considers it useful to examine its EIQ – the environmental impact quotient. The EIQ is an idea pioneered by Joseph Kovach and his colleagues at Cornell University in the early 1990s. Seeking to establish a standardized way to look at pesticides to determine their relative dangers to humans and the environment, they calculated a number that estimates the environmental impact of a pesticide by taking into account toxicity to natural enemies, wildlife and humans, degree of exposure, aquatic and terrestrial effects as well as soil chemistry. The numbers range roughly from 10 to 100, the higher the number - the greater the negative environmental impact.

Dr. Gillman observes: "EIQs aren't perfect, but they're the only way I know of to provide a single coherent value that summarizes the potential risk a chemical application poses to both the environment and us." He therefore cites the EIQ in assessing various chemicals and prefers those with an EIQ of less than 25.

EIQ and Roses

The original published article on the EIQ titled, "A Method to Measure the Environmental Impact of Pesticides" is available on the Internet along with a downloadable Excel file showing the current calculation and EIQ of numerous pesticides and other chemicals. Being impressed with Dr. Gillman's book, I had

thought it might be useful to segregate those chemicals commonly used in rose gardening into tables that rank their EIQ for the benefit of rose gardeners seeking to reduce the environmental impact of chemicals used in their gardens.

The result of my study is set forth in Tables 1 and 2. There I show the overall EIQ of common insecticides, miticides and fungicides, both natural and synthetic, used in rose gardening, including the three separate elements from which the EIQ is calculated. The chemicals are then sorted by increasing overall EIQ. I have also added the Signal Word contained on the label of the representative chemical as well as the words "OMRI" and "Organic" where applicable. OMRI refers to the Organic Materials Review Institute, which provides an independent review of products intended for use in certified organic production. Acceptable products are OMRI Listed® and appear on the OMRI Products List. The word "Organic" is used in the case of products not found on the OMRI list but typically provided by suppliers of organic products and considered "natural".

An analysis of the values in these tables reveals several interesting points:

1. There are no products with an EIQ of zero.

This is very important. All products used in our gardens have an impact on the environment. Insecticides, miticides and fungicides are all "cides" which means they are intended to kill the target organism. The best pesticide – or at least the one with the least environmental impact – is no pesticide at all. Dr. Gillman emphasizes this in his discussion of environmentally-friendly cultural practices such as soil enrich-

(Continued on page 7)

ment and organic fertilization to grow strong healthy plants, the maintenance of cleanliness and good air circulation, the selection of disease-resistant cultivars, the use of mechanical approaches to pest control such as water and hand-picking, and the encouragement of beneficial or-

cal for use in the sustainable rose garden.

2. The EIQ does not consider the effectiveness of the chemical.

Some pesticides are more effective than others. The EIQ treats them all as having the same effectiveness. Those who have gardened for many years know the effectiveness of a

able rose gardener will have to consider the EIQ in light of his own experience, remembering that an ineffective chemical still has a negative effect on the environment but without any corresponding benefit.

3. The Signal Words have little correlation to the EIQ.

As can be seen from the chart, nearly every chemical commonly used on roses has a Signal Word of "Caution." That is the lowest – or "safest" of the three words. There are a few marked "Warning" or "Danger" which as a general rule have higher EIQs than those marked Caution. The toxicity of a chemical and its danger to its applicator is one of the factors considered in the calculation of the EIQ. But as can be seen, there is little correlation between these toxicity indicators and the overall EIQ.

Environmental Impact Quotient (EIQ) of Common Rose Care Chemicals
Table 1 - Insecticides & Miticides

Common Name	Representative Trade Name	EIQ total	Farm Worker	Consumer + Leaching	Ecology	Toxicity	Organic
Insecticides							
Bacillus thuringiensis	DiPel DF	7.9	6.0	2.0	15.8	III - Caution	OMRI
azadirachtin	Azatrol	12.8	6.0	2.0	30.3	III - Caution	OMRI
spinosad	Conserve SC	17.7	6.0	2.0	45.2	III - Caution	OMRI
pyrethrum	Pyganic EC 1/4	18.0	6.0	3.0	45.0	III - Caution	OMRI
potassium soap	Safer insecticidal soap	19.5	11.4	5.1	41.8	III - Caution	OMRI
carbaryl	Sevin 50WP	20.9	12.0	3.0	47.7	III - Caution	
acephate	Orthene 97%WP	23.4	12.0	11.0	47.2	III - Caution	
malathion	Malathion	23.8	9.0	4.5	58.0	III - Caution	
petroleum oil	Saf-T-Side	27.5	8.0	3.7	71.0	III - Caution	OMRI
rotenone	Bonide Rotenone 1% Dust	33.0	54.0	4.0	41.0	III - Caution	Organic
imidacloprid	Merit 75WP	34.9	6.9	10.4	87.5	III - Caution	
sabadilla	Veratran D	35.6	39.3	6.0	61.6	III - Caution	Organic
cyfluthrin	Bayer Powerforce Multi Insect Killer	39.6	6.9	3.5	108.4	III - Caution	
esfenvalerate	Ortho Bug B Gone MAX	39.6	6.9	3.5	108.4	III - Caution	
fluralinate	Mavrik	46.4	65.6	3.8	69.8	III - Caution	
dimethoate	Cygon 2-E	74.0	72.0	9.0	140.9	II - Warning	
cyfluthin + imidacloprid	Bayer Advanced Garden Rose & Flower	74.5	13.8	13.8	195.8	III - Caution	
bifenthrin	Talstar One	87.8	15.0	8.5	240.0	III - Caution	
permethrin	Bonide Total Pest Control	88.7	20.0	9.0	237.0	II - Warning	
disulfoton	Bayer 2-in-1 Systemic	104.5	100.0	23.5	190.0	II - Warning	
Miticides							
etoxazole	TetraSan 5 WDG	13.4	6.9	2.5	30.9	III - Caution	
bifenazate	Floramite SC	14.8	6.0	2.0	36.3	III - Caution	
fenpyroximate	Akari	19.3	6.0	3.0	49.0	II - Warning	
avermectin	Avid	22.7	12.0	1.0	55.1	II - Warning	
fenbutatin-oxide	Vendex	27.5	11.5	6.8	64.1	I - Danger	
dicofol	Kelthane T/O	29.9	36.0	5.0	48.6	II - Warning	
hexythiazox	Hexygon 50 WP	33.0	15.0	7.0	77.0	III - Caution	

Environmental Impact Quotient (EIQ) of Common Rose Care Chemicals
Table 2 - Fungicides

Common Name	Representative Trade Name	EIQ total	Farm Worker	Consumer + Leaching	Ecology	Toxicity	Organic
Fungicides							
Bacillus subtilis	Serenade Biofungicide	7.6	6.0	2.0	14.9	III - Caution	Organic
potassium bicarbonate	GreenCure	8.0	6.0	2.0	16.0	III - Caution	OMRI
iprodione	Chipco 26019	11.0	9.0	2.5	21.5	III - Caution	
fosetyl-AL	Aliette WDG	11.3	6.0	6.0	22.0	III - Caution	
fenhexamid	Decree	11.7	6.0	2.0	27.2	III - Caution	
mancozeb	Dithane D-45	14.6	12.0	3.0	28.9	II - Warning	
azoxystrobin:	Heritage 50W	15.2	6.0	5.0	34.7	III - Caution	
captan	Captan 50WP	15.8	12.0	5.0	30.3	I - Danger	
thiophanate-methyl	Clearys 3336F	22.4	16.2	5.1	46.0	IV - Caution	
fenarimol	Rubigan EC	22.4	12.0	19.0	36.3	III - Caution	
dimethomorph	Stature DM	24.0	8.1	12.2	51.8	III - Caution	
propiconazole	Banner Maxx/Honor Guard	27.5	8.1	15.2	59.3	II - Warning	
mefenoxam	Subdue MAXX	29.4	8.1	12.2	68.0	III - Caution	
triadimefon	Bayleton	30.7	16.2	21.3	54.6	III - Caution	
trifloxystrobin	Compass	30.9	12.2	10.2	70.4	III - Caution	
myclobutanil	Immunox Plus	33.0	12.2	16.7	70.1	II - Warning	
copper hydroxide	CuPro/Kocide 2000 DF	33.3	12.2	5.1	82.7	II - Warning	Organic
chlorothalinalol	Daconil Ultrex	40.1	20.0	9.0	91.3	I - Danger	
tebuconazole	Bayer Disease Control	40.3	20.0	31.0	70.0	III - Caution	
triforine	Funginex	41.2	24.3	25.9	73.4	I - Danger	
sulfur	Safer Brand Garden fungicide	45.5	10.0	6.0	120.6	III - Caution	OMRI
copper sulfate+lime	Bordeaux	67.7	108.0	19.0	76.0	II - Warning	Organic

ganisms. Good horticulture is the first line of defense and must be practiced before selecting any chemi-

cal chemical often depends on many factors, including, for example, the build-up of resistance. The sustain-

able rose gardener will have to consider the EIQ in light of his own experience, remembering that an ineffective chemical still has a negative effect on the environment but without any corresponding benefit.

A Rose-E-IQ

pears that the OMRI listing and organic products have lower EIQs and are less harmful to the environment.

But there are exceptions. We find rotenone, a natural pesticide that Dr. Gillman particularly dislikes, having a higher EIQ than Sevin, Orthene or Malathion, all synthetic chemicals unfavored by organic gardeners. We also find the OMRI-listed sulfur as having the next to highest EIQ among fungicides, exceeded only by the supposedly natural, but toxic brew called Bordeaux mixture, which has been around for many years.

5. Field comparisons should not be made with these data!

But this is not all – folks – there is something else about these figures that I discovered by doing something that Dr. Gillman apparently failed to do before embracing the EIQ: I READ THE ARTICLE!

The original article on the EIQ contains the following statement– with the bold letters in the original: “**Field comparisons should not be made with these data.**” What this means in its simplest terms is that you cannot use the total EIQ numbers to compare chemicals. Dr. Gillman’s emphasis on selecting chemicals with an EIQ of less than 25 is plainly wrong. In fact, tabulating the data as I have done is also wrong.

The EIQ Field Use Rating

What is missing are the adjustments the authors of the original EIQ article specify as necessary to produce the “EIQ Field Use Rating”. This is the only rating that can be used to compare the environmental impact of one chemical with another. As stated in the article:

“Once an EIQ value has been established for the active ingredient of each pesticide, field use calculations can begin. To

accurately compare pesticides and pest management strategies, the dose, the formulation or percent active ingredient of the product, and the frequency of application of each pesticide need to be determined. To account for different formulations of the same active ingredient and different use patterns, a simple equation called the EIQ Field Use Rating was developed. This rating is calculated by multiplying the EIQ value for the specific chemical obtained in the tables by the percent active ingredient in the formulation by the rate ... used....”

This makes sense if you think about it for a few moments. The environmental impact of a chemical must depend on how much of it you put in your garden. Chemicals have different percentages of active ingredient, different rates of application and different recommended frequencies of application. The EIQ Field Use Rating adjusts for these factors thus permitting real comparisons of the environmental impact between pesticides.

A Ros-E-IQ

The EIQ Field Use Rating of commonly used rose chemicals is set forth in Tables 3 and 4. There I have adjusted the EIQ by the percentage of active ingredient (ai), the dosage (based on ounces/gallon) and the frequency of application. The latter simply assumes a standard of 16 applications in a season for those chemical applied weekly, with corresponding adjustments for those that are applied every 14 or 21 days. This provides an accurate relative comparison that should remain roughly the same, no matter how long the growing season.

I have referred to the EIQ Field Use Rating thus obtained as the “Ros-E-IQ” – though unlike the measure of intelligence, a lower Ros-E-IQ is better. These values contain a number of

surprises.

With respect to the insecticides, the three chemicals with the lowest Ros-E-IQs all have OMRI listings. At the same time, the two chemicals with the highest Ros-E-IQs also have OMRI listings, these being petroleum oil and insecticidal soap. Both have very high rates of application and high percentages of active ingredient, which, as can be seen pushes their ratings very high. A good break point in evaluating the Ros-E-IQ is 25 – the number used by Dr. Gillman – though in this case the number has considerably more relevance. And of interest, we find a number of insecticides that organic gardeners would reject out-of-hand, including Bayer’s Powerforce Multi Insect Killer and its Advanced Garden Rose and Flower Insect Killer. We also find Mavrik and Talstar both of which have very high EIQs, primarily because of their ecological effects, however because of their low doses they have low Rose-E-IQs. We also find Merit, which contains imidacloprid, the most widely used insecticide in the world, with a low Ros-E-IQ, primarily because it is typically applied at the very low rate of 1 teaspoon per ten gallons of spray mix.

In the case of the miticides we find the very low application rates give Avid, TetraSan, Akari and Floramite extremely low Ros-E-IQs. Hexygon is also well under the 25 level. In fact, we can see that modern miticides have very little negative environmental impact.

Finally, in the case of the fungicides, we find that the product with the lowest Ros-E-IQ is Compass, a product that contains strobilurin, a fungal antibiotic that fights infections of plants. In second position is the new biofungicide Serenade. Of particular note is that the fungicides with

OMRI listings or based on so-called “organic” formulations of metals and elements are pretty much at the top end of the values. Those under 25 include Heritage, another strobilurin-based chemical, and well-known fungicides such as Banner Maxx, Funginex, Immunox and Bayer Disease Control.

examine the EIQ Field Use Rating. But his main point is nevertheless valid. Sustainable rose gardening is about making safe and smart choices such as reducing the use of pesticides and increasing the use of mulches and compost. And, when it becomes necessary to utilize a pesticide, we do have choices and can select those that have a substantially reduced impact on the environment. The EIQ Field Use Rating provides this value,

the best and most beautiful roses. In so doing, I am convinced this can be accomplished without sacrificing the environment. We need to adopt sustainable rose growing practices. Hopefully this study will contribute to our knowledge of how we can minimize the environmental impact of the chemicals we use on our roses so that our roses are not only beautiful but also contribute to a beautiful environment.

EIQ Field Use Rating of Common Rose Care Chemicals (Ros-E-IQ)

Table 3 - Insecticides & Miticides

Common Name	Representative Trade Name	EIQ total	ai	dose	freq	RosEIQ	Toxicity	Organic
Insecticides								
azadirachtin	Azatrol	12.8	0.01	0.125	16	0.31	III - Caution	OMRI
pyrethrum	Pyganic EC 1/4	18.0	0.01	0.333	16	1.34	III - Caution	OMRI
spinosad	Conserve SC	17.7	0.12	0.056	16	1.83	III - Caution	OMRI
cyfluthrin	Bayer Powerforce Multi Insect Killer	39.6	0.01	0.500	16	2.37	III - Caution	
cyfluthrin + imidacloprid	Bayer Advanced Garden Rose & Flower	74.5	0.01	0.500	16	4.29	III - Caution	
fluralinate	Mavrik	46.4	0.22	0.042	16	6.89	III - Caution	
imidacloprid	Merit 75WP	34.9	0.75	0.021	16	8.73	III - Caution	
bifenthrin	Talstar One	87.8	0.08	0.167	16	18.50	III - Caution	
Bacillus thuringiensis	DiPel DF	7.9	0.54	0.333	16	22.80	III - Caution	OMRI
permethrin	Bonide Total Pest Control	88.7	0.13	0.167	16	31.45	II - Warning	
rotenone	Bonide Rotenone 1% Dust	33.0	0.01	6.000	16	31.68	III - Caution	Organic
acephate	Orthene 97%WP	23.4	0.97	0.125	16	45.36	III - Caution	
disulfoton	Bayer 2-in-1 Systemic	104.5	0.01	4.000	16	66.88	II - Warning	
carbaryl	Sevin 50WP	20.9	0.50	0.500	16	83.60	III - Caution	
dimethoate	Cygon 2-E	74.0	0.23	0.333	16	92.31	II - Warning	
malathion	Malathion	23.8	0.50	0.500	16	95.33	III - Caution	
sabadilla	Veratran D	35.6	1.00	0.200	16	114.03	III - Caution	Organic
esfenvalerate	Ortho Bug B Gone MAX	39.6	1.00	0.330	16	208.91	III - Caution	
petroleum oil	Saf-T-Side	27.5	0.80	1.000	16	352.43	III - Caution	OMRI
potassium soap	Safer insecticidal soap	19.5	0.50	2.500	16	385.11	III - Caution	OMRI
Miticides								
avermectin	Avid	22.7	0.02	0.042	16	0.29	II - Warning	
etoxazole	TetraSan 5 WDG	13.4	0.05	0.042	16	0.45	III - Caution	
fenpyroximate	Akari	19.3	0.05	0.333	8	2.58	II - Warning	
bifenazate	Floramite SC	14.8	0.50	0.083	5	3.28	III - Caution	
hexythiazox	Hexygon 50 WP	33.0	0.50	0.083	8	11.00	III - Caution	
dicofol	Kelthane T/O	29.9	0.50	0.167	16	39.80	II - Warning	
fenbutatin-oxide	Vendex	27.5	0.50	0.250	16	54.92	I - Danger	

EIQ Field Use Rating of Common Rose Care Chemicals (Ros-E-IQ)

Table 4- Fungicides

Common Name	Representative Trade Name	EIQ total	ai	dose	freq	RosEIQ	Toxicity	Organic
trifloxystrobin	Compass	30.9	0.50	0.021	8	2.58	III - Caution	
Bacillus subtilis	Serenade Biofungicide	7.6	0.01	2.000	16	3.27	III - Caution	Organic
fenarimol	Rubigan EC	22.4	0.12	0.083	16	3.59	III - Caution	
azoxystrobin:	Heritage 50W	15.2	0.50	0.040	16	4.87	III - Caution	
triadimefon	Bayleton	30.7	0.25	0.042	16	5.12	III - Caution	
propiconazole	Banner Maxx/Honor Guard	27.5	0.14	0.111	16	6.99	II - Warning	
triforine	Funginex	41.2	0.07	0.167	16	7.14	I - Danger	
myclobutanil	Immunox Plus	33.0	0.02	1.000	16	8.18	II - Warning	
mefenoxam	Subdue MAXX	29.4	0.22	0.240	8	12.42	III - Caution	
iprodione	Chipco 26019	11.0	0.23	0.333	16	13.65	III - Caution	
tebuconazole	Bayer Disease Control	40.3	0.03	0.750	16	14.04	III - Caution	
fenhexamid	Decree	11.7	0.50	0.333	8	15.62	III - Caution	
mancozeb	Dithane D-45	14.6	0.70	0.125	16	20.46	II - Warning	
thiophanate-methyl	Clearys 3336F	22.4	0.46	0.167	16	27.50	III - Caution	
copper hydroxide	CuPro/Kocide 2000 DF	33.3	0.54	0.167	16	47.77	II - Warning	Organic
potassium bicarbonate	GreenCure	8.0	0.85	0.500	16	54.40	III - Caution	OMRI
captan	Captan 50WP	15.8	0.50	0.500	16	63.07	I - Danger	
dimethomorph	Statue DM	24.0	0.50	0.333	16	64.03	III - Caution	
fosetyl-AL	Aliette WDG	11.3	0.80	0.500	16	72.53	III - Caution	
sulfur	Safer Brand Garden fungicide	45.5	0.12	1.000	16	87.42	III - Caution	OMRI
chlorothalinal	Daconil Ultrex	40.1	0.83	0.250	16	132.28	I - Danger	
copper sulfate+lime	Bordeaux	67.7	1.00	4.500	16	4872.00	II - Warning	Organic

Conclusion

Dr. Gillman’s emphasis on EIQ in his book comes up short because he fails to complete his analysis and

which in the case of roses is the Ros-E-IQ.

My objective in growing roses is and has long been to grow – and show -

for ARS Vice-President for which he maintains a website at www.bobmartinarsvp.com

Robert B. (“Bob”) Martin Jr. of Escondido, California has been growing roses for over 35 years. Bob is an ARS Master Rosarian, the author of the book *Showing Good Roses* and over 500 published articles on roses, including widely circulated articles on mulch, earthworms and spraying roses. Bob is also well known as an effective and entertaining speaker, having spoken at numerous national and district conventions, as well as local society presentations, including seminars on organic feeding techniques.

Bob is a candidate

A Host of New Faces to Speak at Winter Workshop

The first presentation of the day is **Ed Griffith**, of Mobile, Alabama. Ed's contribution to the ARS are



many and varied. Ed is a life member of ARS and is a Master Consulting Rosarian, Horticulture Judge, and Arrangements Judge. He has served as President of the Mobile Rose Society and as Deep South District Director. He is a current member of the Public Garden Committee, Photo Contest Committee, and Convention Planning Committee.

He is a frequent speaker at conventions, Judging Schools, and Exhibitor Seminars. He also has a long history of written contributions to the ARS, serving for 30 years as Mobile's *Rosy Register* editor. He has contributed numerous articles to *American Rose*, district publications, and the *Rose Exhibitors' Forum*. Ed also was the editor of the 2001 *American Rose Annual*.

Our second speaker of the day is **Jolene Adams** of Hayward, California.

Jolene brings a wealth of technical expertise to her love of growing roses. She has served as Computer Resource Manager and Webmaster for Computer Services at the College of Chemistry at UC Berkeley.

She grows about 150 roses and serves the ARS at the local, district, and national level, lecturing on roses and computing topics.

She is the current district director for the Northern California, Nevada, and Hawaii District, and



served as its webmaster until 2003. She edited *The Criterion*, the district's newsletter from 1995 to 1997, and earned the Gold Medal for Best District Bulletin in 1997.

She is a Master Rosarian, and won her district's outstanding CR award in 2000. Jolene is also an accredited Horticulture Judge and has served in leadership positions in the East Bay, Mount Diablo, and Golden Gate local societies.

She has served as the ARS webmaster since 1995 and chairs the

E.Rose Committee. She also publishes the national bulletin *ARS & You*.



The final morning program will be presented by **Bill Carlson** of Indianapolis, Indiana.

William Carlson has been an ARS member since 1976. He is a Consulting Rosarian since 1979, Horticulture Judge since 1980 and Arrangements Judge since 1985. He has served on ARS Prizes & Awards Committee, ARS Arrangements Committee and as editor of the *Rose Arranger's Bulletin* as well as the Illinois-Indiana chair of Arrangements Judges. He is also an advanced Master Gardener. He is a nationally known arranger and active member of the Indianapolis Rose Society.

Kicking off the afternoon session will be **Jim Delahanty** speaking on Polyanthas.

Born in New Jersey and a graduate of Rutgers University, Jim now resides in Sherman Oaks, California. He later attended

(Continued on page 11)

UCLA and earned his J.D. at Loyola.

He retired from teaching Law and Government at St. Mary's College in Los Angeles in 2000.

He started growing roses over 30



years ago, and now grows over 500 roses, 170 of which are polyanthas. In addition to growing roses, Jim is an accomplished writer, earning dozen Award of Merit winners in the past three years.

He has served as the President and Newsletter Editor for the Ventura County Rose Society. Currently, Jim serves as the chair of the ARS Local Society Relations Committee and edits *ARS & You*.

The last afternoon presentation comes from ARS Executive Director **Jeffrey Ware**. He will give us the Report from Shreveport.

Our Executive Director since July 2007, Jeff is a native of Arkansas and a graduate of the University of Arkansas (a bona fide Tenar-



kian!) in Philosophy. He also holds a degree in Theology from the Baptist Seminary in Little Rock.

He has served the Boy Scouts in los Angeles and Public Television in Tennessee. He also worked in Public Radio in Austin, Texas. Immediately prior to coming to Shreveport, Jeff was Executive Director of Triangle Research in Impact, North Carolina.

Our banquet speaker for the eve-



ning is **Robert B. Martin, Jr.** of Escondido, California.

Well known in the American Rose Society, Bob literally wrote the book on exhibiting when he published *Showing Good Roses*. He is a recipient of the Blake Hedrick Award, the PSWD Dis-

trict Silver Medal, two Bronze medals (Pasadena and Los Angeles Societies), Outstanding Consulting Rosarian, and Outstanding Arrangements Judge.

He has served as his district's executive director and on the ARS Executive Committee.

A prolific writer, Bob has earned 44 Awards of Merit for articles published in ARS materials. He has authored hundreds of articles and edited *The Pasadena Rose* for many years.

He has edited the *Rose Exhibitors' Forum* since 1997, *Horizon Roses* since 2006, and co-edited the 2006 *American Rose Annual*.

Bob is also a frequent speaker at local, district, and national events, and has hybridized eight varieties, including the floribunda 'Pasadena Star' and the miniflora 'Butter Cream'.

Quarterly specialty publications are now available to all ARS members.

Visit www.ars.org

Find the "Members Only" Section.

Enter the password from the most recent magazine to access

The Rose Exhibitors' Forum

Miniature and Miniflora Bulletin

Rose Arranger's Bulletin

OGR & Shrub Journal

ARS Elections

Candidates for American Rose Society Vice President

The triennial ARS elections will be held in 2009. This year, we will elect a new Vice President who assumes the Presidency after three years, succeeding Jeff Wyckoff. Two highly qualified candidates ask for your vote. Visit their web sites, referenced below to learn more about them and their vision for the ARS.

Jolene Adams



<http://home.comcast.net/~jolene4vp/>

Robert B. Martin, Jr.



www.bobmartinarsvp.com

Greetings from Kent Campbell, Candidate for Region Four Director

Having been District Director of Tenarky for two terms and nearing the end of that six year obligation, the maximum time allowed in one elected office by the ARS by-laws, I was contemplating life without board meetings, crises, politics, and so forth. It was really too bad, in a way, because it takes about that long to learn the job, establish coalitions, and, in general, become effective within the Board and even the area you serve.

Then, a few weeks ago some friends on the ARS Board of Directors and others in Region Four began talking with me about seeking the Re-

gion Four position since George Hartley had announced that he would not seek a second term. So, here I am full of new energy, looking forward to traveling Region Four and learning new ways to become a truly effective and productive Regional Director.

Regions are difficult to explain. Those who came before us must have been a mischievous group, to say the least, and probably have gone on with a twinkle in their collective eyes and laughing quietly at what they did to us. Region Four consists of Indiana, Kentucky, Ohio, Michigan, and Ontario, Canada, or the area of the U.S. which has a postal zip code beginning in the numeral four plus the one section of Canada. The country is full of this but to reflect on just a couple of weird examples, think about

these. Tenarky which involves three states is in three regions. Illiana is one district and two regions. Ohio is one and one, the only state so blessed.

So, to the ARS members of Kentucky, I am asking for your vote. There is much work to be done in our wonderful organization. I do believe we have “turned the corner” on loss of membership and some other business aspects of our society. And, yes, I believe that with hard work and good leadership the ARS can once again assume the position of outstanding horticultural organization in the United States.

And Sam Jones is running for Tenarky District Director.

2009 Auction Roses

- Black Cherry** **FL** **2006 Floribunda of the Year.** Dark crimson buds with black tips swirl open to a sumptuous, cherry-red. At first, the petals are edged ever so slightly in a rich, velvety black, then open fully to high-centered, dusky red, damask-scented blooms. Set on long, strong stems against luxurious, glossy foliage on an upright, well-branched plant, the generous clusters of fragrant blossoms are especially striking in bouquets.
- Carefree Spirit**** **SH** **2009 AARS Winner.** This vigorous, well-branched shrub rose boasts huge clusters of deep cherry red blooms and healthy dark green glossy foliage over a very long season.
- Dream Come True **** **GR** **2008 AARS Winner.** The flawless double flowers put on a spectacular show as they open a clear yellow with ravishing ruby red edges. Up to 40 petals pack each huge, lusciously colored bloom. Their distinctive color, flawless hybrid tea form, and exceptionally long vase life make these roses outstanding cut flowers.
- Enchanted Evening**** **FL** Among the best lavender roses ever! The full, ruffled blooms wear darker lavender at their centers with a silvery reverse. There are plenty of candelabra flower clusters to enjoy, even late into the season. Their scent is a powerful citrus essence. Superior disease resistance.
- Fairy Queen** **SH** These shrub roses are as easy to care for as any other plant in the garden! They begin flowering in late spring and continue through summer and into fall.
- Good 'N Plenty** **SH** Delicious deep pink, white-eyed blooms cover the compact plants all season long. Glossy foliage stays clean and disease free in any climate.
- Kimberlina**** **FL** **2009 Floribunda of the Year Winner.** One of the healthiest, toughest, most vigorous floribundas ever introduced. Set against glossy dark green foliage on an upright, well branched plant, light pink blooms exhibit a soft-spoken elegance and versatility.
- Lady Bird**** **HT** Deep orange to coral orange. This elegant hybrid tea rose was personally chosen by former First Lady, Lady Bird Johnson, for its unusual, vibrant color and graceful form. Large, generously petaled flowers open slowly and fully on tall, strong stems, presenting a long-lasting display of energetic color and tantalizing fragrance.
- Light My Fire**** **FL** This flaming hot orange floribunda is sure to set your garden ablaze with traffic-stopping color! With large clusters of red-orange blooms offset by dark green, glistening foliage, Light My Fire can ignite any landscape. Its compact rounded habit adds a fiery burst of color to mixed perennial beds and is great for containers and small spaces.
- Memorial Day** **HT** **2004 AARS Winner.** Large, fully petaled, porcelain blossoms and powerful perfume, super-vigorous bloom production, exceptional resistance to summer heat. Lavender, Pink, Medium green foliage.
- Outrageous** **FL** Radiant yellow-tinged orange rose blossoms in wave after wave of large, lemon-scented clusters
- Pink Promise**** **HT** **2009 AARS Winner.** This pink blend promises a stunning rose garden! It has been chosen to represent the National Breast Cancer Foundation as they search for the cure. Elegant shapely buds and long stems lend it perfectly to cutting and filling any room with a delectable fruity fragrance.
- Pope John Paul II** **HT** Among the finest white roses ever, the Pope John Paul II rose produces luminous, pristine, lavishly petaled blossoms with a delightful, fresh citrus fragrance.
- Snowcone** **SH** Creamy, pointed buds open to pure white, dainty blooms that flower profusely in unusual, cone-shaped, hydrangea-like clusters on a compact, rounded bush. The tiny, sparkling white petals set against dark green, glossy foliage grow quickly to become the perfect garden accent in mixed beds. Excellent vigor, reblooming and disease resistance.
- Sweetness**** **GR** As a vigorous, healthy grandiflora, Sweetness bursts with a soft, versatile lavender color and fills your garden with clusters of high-centered hybrid tea blooms all season. Bred from the powerfully fragrant French rose Melody Parfumée, Sweetness packs an intoxicating sweet lemon fragrance powerful enough to fill an entire garden!
- Tahitian Sunset** **HT** **2006 AARS Winner.** Splendid blossoms start from high-centered, orange-yellow buds that open fully to a peachy apricot-pink, aglow with yellow highlights. With a delightful licorice scent and set against semi-glossy foliage, this perfectly formed rose makes an ideal garden focal point.

**** New**

Descriptions courtesy of Jackson and Perkins

Tenarky District of the American Rose Society
Winter Workshop, February 20-21, 2009
Holiday Inn University Plaza and Sloan Convention Center
Bowling Green, Kentucky

Friday, February 20, 2009

Registration: Lobby: 4:00 –

Hotel: Salon B

6:00 Welcome Social – hors d’oeuvres (bar service available)

Saturday, February 21, 2009

Convention Center (Adjoining the Hotel) Meeting Rooms 1 & 2

8:00 - 8:30 Registration (coffee and soft drinks available)
8:30 - 9:30 Ed Griffith, “**The Wonderful World of Roses**”
9:45 - 10:45 Jolene Adams, “**Myths and Monsters of the Rose World**”
11:00 - 12:15 William Carlson, “**Mechanics of Design**”
12:15 - 1:30 Lunch on your own!
1:30 - 2:30 Jim Delahanty, “**Polyanthas**”
2:40 - 3:40 Jeffrey Ware, “**Report from Shreveport**”
3:45 - 4:30 District Meeting and Quiz the Candidates

Convention Center Meeting Rooms 1 & 2

6:30 - 7:00 Music – Cash Bar
7:00 - **BANQUET**, Robert Martin, Speaker
ROSE AUCTION

Sunday, February 22, 2009

Consulting Rosarian School

Tenarky District

Winter Meeting, February 20-21, 2009

Holiday Inn University Plaza and Sloan Convention Center

Bowling Green, Kentucky

Registration fees are mandatory for all who attend. This covers the Friday night social, the Saturday Workshop, and the Saturday night banquet. Make checks payable to the TENARKY District Winter Workshop and mail with this form to:

Peggy Utz
1328 Mill Lane
New Albany, IN 47150

PLEASE LIST ALL REGISTERING:

Name _____	Name _____
Address _____	Address _____
City _____	City _____
State/Zip _____	State/Zip _____
Society _____	Society _____

<u>No. of People</u>	<u>Cost</u>	<u>Total</u>
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	\$85.00	_____
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No money will be refunded if registrations are canceled on or after February 13th.

Make your own hotel reservation with Holiday Inn, University Plaza, 1021 Wilkinson Trace, Bowling Green, KY 42103. Phone (270) 745-0088. IT IS BEST TO CONTACT THE HOTEL DIRECTLY (during the day.) Indicate that you are requesting the member's special rate for the TENARKY Rose Society. (The key word is "rose.") You must make your reservation by Thursday, February 5, 2009, to be guaranteed the special rate of \$90.00 per room (single, triple, or quad) plus 13.42% state and local taxes.

KATnips

c/o Robert Sutherland
3741 Dicksonia Drive
Lexington, KY 40517-1906

KATnips

Visit Tenarky's website at
www.tenarky.org

Contact the editor:
robertje@insightbb.com



Roy Guthrie, co-recipient of the 2008 Silver Honor Medal, received his award from John Dickman.

KATnips is the semi-annual newsletter of the Tenarky District of the American Rose Society. Tenarky encompasses members of the American Rose Society residing in the states of Tennessee, Eastern Arkansas, and Kentucky. The newsletter is provided free in electronic format or by subscription for printed mailed copies. Photos and articles, along with positive and negative feedback may be directed to the editor at the above address or by email at robertje@insightbb.com.

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