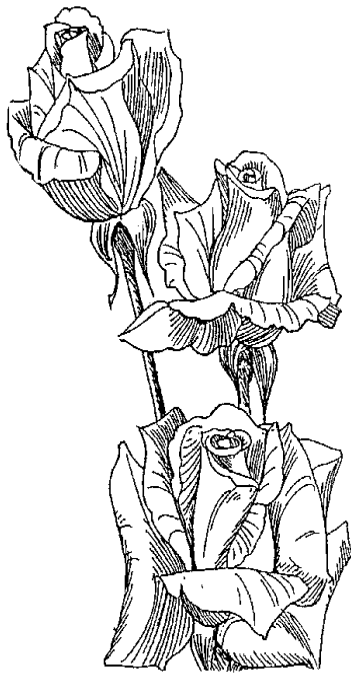


Garden Chores



Rusty '83

Contents

Subscription Info	2
District Notes	2
Director's Message	3
District Convention	4
Convention Schedule.....	5
Registration Form	6
A Ros-E-IQ	7



Got Weeds?

Summer Dilemma

Temperatures in the upper 80's. Humidity about the same. I'm mowing the grass and thinking this is about the stupidest thing I could be doing. Then I go by one of the rose beds and see some weeds starting to pop up. Sheesh! I just weeded the beds a few weeks ago!

So I could stop mowing and pull weeds for a while but then I would think that weeding is about the stupidest thing I could be doing. Both are chores that have to be done and both are, in my opinion, stupid.

Now if I put down lots of mulch, that would take care of the weeds in the beds right? Seems the weeds in my garden figure out how to grow in 4" of mulch. Maybe I could buy mulch died green and bury the grass under it. Or pour green dyed concrete over the grass. From a distance, who could tell?

The answer, of course, is more roses! I first heard this from Rich Rosen, then president of the Austin Rose Society: "If you own a lawnmower, you have room for more roses."

That's the ticket – drain the checkbook on rose orders and plant roses wherever grass rears its ugly head.

Oh Oh! How much extra would I have to spend on fertilizer and spray materials? And the time spent applying them? Maybe this grass thing isn't so bad.

OK, so budget 4 hours a week to mowing. I guess I should budget about the same for weeding. Then I can get to caring for the roses. Watering, feeding, spraying, pruning. Not much time for anything else.

But that is what our hobby is all about. Gardening is a series of chores designed to make our plants look their best. If I didn't garden, I'd weigh about 40 pound more and my blood pressure would be in the low 200's. And I wouldn't have the satisfaction of looking out over the garden and seeing all those roses in bloom .

OK, so maybe mowing and weeding aren't so stupid, but part of the steps necessary to have a good garden and a place where I like to spend time..

Kevin

PJ District Convention
Sept. 11 -13
Cherry Hill NJ
Info starts on Page 4

Please see important
subscription information
inside on Page 2.

Subscription Notice

The Penn-Jersey District would like to deliver the *RoseVine* to all members via email. If you received this copy of the *RoseVine* through the U.S. Mail and would like to receive the *RoseVine* via email, please send an email to Elaine Adler at eladler@sourcecodecorp.com and we will update our emailing lists.

If you received this copy of the *RoseVine* through the U.S. Mail and would like to continue receiving the *RoseVine* via U.S. Mail, please complete the form below and mail to:

Elaine Adler
1408 Ponds Edge Rd.
West Chester, PA 19382

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

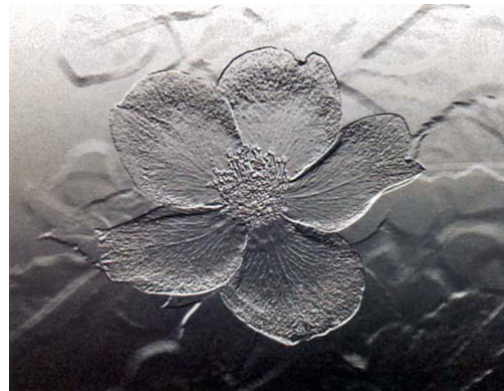
District Notes

Roses in Review – Rose reviews are due by Sept. 26, 2009 to our District RIR Coordinator Diane Wilkerson. Paper forms were published in the July/August edition of the *American Rose*. If you use the paper forms, mail to Diane at: 9 Oldfield Pl., Red Bank, NJ 07701. An easier way to submit forms is on the ARS website (www.ars.org). Just follow the RIR link – it is very easy!. At the time of this writing, the ARS site is down for virus cleansing but is expected to be back up soon.

ARS 2008 Photo Contest – District members did very well in the ARS 2008 Photo Contest. Winners are:



Class 2: Bill Kozemchak “Greetings”



Class 9 Kathleen Lapergola
“Watercolors”



Class 11-7: Gus Banks
“Arrangement by Nancy Redington”

Other winners:

Class 11-8: Gus Banks “Arrangement by Gus Banks”

Class 13-2 Tom Mayhew “Longwood Gardens”

From the District Director's Desk

Looking forward, September brings our Penn Jersey District Convention in Cherry Hill, NJ. If you haven't already registered and made your hotel reservations, do so soon. Information is included in this *RoseVine* and is available on the West Jersey Rose Society website, www.wjrs.org. The West Jersey Rose Society has put together an enticing selection of events including horticulture and judges seminars, varied programs, and even a gourmet afternoon "tea."

Looking back, many of us attended the 11th National Mini Convention in Harrisburg hosted by the York Area Rose Society – for the second time in three years. York did a great job and richly deserves the appreciation expressed by ARS President Steve Jones. A good time was had by all, and many of our Penn Jersey exhibitors were significant winners - Mike Wrightstone - Mini Queen, Breath of Spring; Andrew Hearne - MiniFlora Queen, Tiffany Lynn. Others winning horticulture awards were Frank Benardella, Bruce Monroe, and Bill Kozemchak. In the Artistic Division, Nancy Redington won the ARS Gold Certificate. Other classes were won by Nancy and Curtis Aumiller and Pat Lawrence. The Mini National will be Wisconsin next year, but comes back East to Syracuse, NY, in 2011.

As most of you know, the current economic situation has seriously affected non-profit

organizations like the American Rose Society and is exacerbating existing financial difficulties. At the most recent ARS National Convention in Vancouver, the Board of Directors voted to ask each District Director to be responsible for securing at least \$1,000 in contributions to the ARS before the end of the year. Apparently it is not anticipated that the District will make this entire contribution – it is hoped that it will be a combination of donations from individuals, local societies, and the District. If you have any questions, please call either Bruce Monroe or me. This will be discussed at the Business Meeting in September.

Our fall convention marks the end of my six years as District Director. Kevin Glaes will take over as Director at the District Business Meeting on Sunday. I want to thank all of you who have served as Officers and Committee Chairs – I sincerely appreciate your assistance, wisdom, and energy. I've greatly enjoyed the job which you made so much easier and more pleasant. My good wishes to Kevin as he begins his term – I sincerely hope he finds it as rewarding as I did.

We just received word that Jolene Adams was declared the winner in the race for ARS Vice President.

Elaine

Keep Those Cameras Clicking

There will be several opportunities to show off your photography at District events in the coming months. First, there will be a photography contest as part of the rose show at the District Convention in Cherry Hill. See the following pages for more information. Second, we will continue to have the Photo Contest during the Weekend Rose-Get-A-Way next February in Lancaster.

Finally, we would like a number of people to show us their gardens. It is difficult to get to see everybody's gardens in the summer, but with the age of the digital camera, you can bring your garden to us in the middle of winter! Take lots of digital pictures of your garden during the growing season and then, if you would like to show us your garden at the Weekend Rose-Get-A-Way next February, email me (kevyg@frontiernet.net) and let me know you would like to participate. In November and December, you can send me your digitals and I will put them into a Power Point presentation. Remember, taking digital photographs is pretty cheap compared to the old film method, so click away!

Penn-Jersey 2009 District Convention

The West Jersey Rose Society is inviting all Rosarians to attend the Penn-Jersey 2009 District Convention. This year's convention will be held on September 11-13, the weekend following Labor Day at the Inn at Cherry Hill (formerly the Clarion Hotel) in Cherry Hill, NJ. Conveniently located at the intersection with Route 70 and exit 34B off Interstate 295 the hotel is easily accessed. We have gotten a low room night rate of \$109 with the hotel holding that rate until September 4th.

We are looking forward to everyone having a great time. This year West Jersey Rose Society is celebrating our 56th anniversary and we would like you to help us by attending. We are introducing two new events to the convention as well as having all the events you've come to expect at the district convention.

Starting Friday there will be two sets of programs, one for judges and one for arrangers. The programs are scheduled so an individual will be able to complete both judging and arrangement audits in one day. If you are not sure of your need to complete a horticulture audit, please contact Bruce Monroe, the District Chairman of Judges. If you are interested in becoming a judge, you must complete the horticulture Judges school and have been an ARS member for three years. These classes are open to anyone registered at the convention. This will allow individuals to attend and learn what the judges look for in the different varieties of blooms.

Pat Bilson the District Arrangement Chairperson provided the following information:

"Judges and arrangers, please reserve Friday, Sept. 11, for an official audit for design judges and a wonderful opportunity for all arrangers to hone their skills. We will be studying miniature designs including staging in detail. Bring a selection of miniature containers, some miniature roses and some interesting line material as we share roses and other plant material to expand our knowledge of techniques. The morning will be the official part of the judges audit and all Penn-Jersey arrangement judges will need to attend for re-certification as we are all due. Lunch is part of the fee schedule. The afternoon workshop is a hands

on experience where we will point score a few designs."

After our classes are complete we will have the District's award dinner followed by a chance to talk roses in the hospitality room. If we are able to get the show room set up, we will open it in the evening for the arrangers to start on their arrangements.

Saturday will start early with a 6 AM opening of the Show Prep Room. Judging will start at 10:30 AM so get your roses in early. You must register at the convention to enter any classes. Your convention number will be your exhibitor's number. As part of the rose show, we are adding a photo contest. Copying from our Rose Get-A-Way meetings, the photo contest adds pictures of beautiful roses. So, please bring your rose photographs to enter.

The rose show opens at 1 PM. This will be followed by a new and exciting event. We are happy to offer a "Rose Themed Afternoon Tea." The "Afternoon Tea" will be held at 1:30 PM. Enjoy savory tea sandwiches, freshly baked scones and decadent desserts. Come, relax, savor the tea and enjoy the company of your friends and fellow rosarians. Cost \$25.00 per person. This event has limited seating. Reservations required. Please RSVP with registration by September 6, 2009.

The afternoon programs continue with talks by Stephen Scaniello on "The Truth about Roses Names" and Mary Peterson on "Women and Roses." Later in the afternoon, we will present the majority of the show awards. This will be followed by our raffle drawings.

Our evening banquet will not have a speaker. Instead, this year we will be entertained by Ken and Ruth Borrmann. Come and join us for a lyrical evening. Again, after dinner the hospitality room will be open.

Sunday will bring the District meeting followed by garden tours.

We hope that you will register early and make your hotel reservations now. Plan to spend a late summer weekend with your rose friends here in Cherry Hill. We are working to complete all

schedules and put them on our new web site. The West Jersey site address is www.wjrs.org. Please check the site to download any of the schedules that interest you.

I hope to see you this fall at our convention.

Gus Banks
WJRS Convention Chairman

2009 Convention Schedule of Events

Please note: Locations and times are subject to change. Check with registration for any updates.

Friday, September 11

8:00 AM -5:00 PM	Registration, Hotel Lobby
9:00-11:30 AM	Judges School
9:00-11:30 AM	Arrangement Audit
11:30 AM-12:30 PM	Judges & Arrangement class Attendees Box Lunch
12:30 – 5:00 PM	Judges Audit & School
12:30 – 5:00 PM	Arrangement Workshop
6:00-7:00 PM	Social Hour
7:00 PM	Awards Dinner
9:30 PM	Hospitality

Saturday, September 12

8:00 AM -3:00 PM	Registration, Hotel Lobby
6:00 -10:AM	Rose Show Preparation & Entries
8:30 – 9:30 AM	Judges Breakfast
8:30 – 9:30 AM	Clerks Breakfast
10:30 AM	Judging Begins
1:00 PM	Rose Show Open to the Public
1:30 PM	A Rose Themed Afternoon Tea (Reservations Required)
2:00 PM	The Truth about Roses Names– Stephen Scaniello
3:00 PM	Women and Roses – Mary Peterson
4:00 PM	Presentation of Awards
4:30 PM	Raffle, Show Closes
5:00 PM	Rose Show Breakdown
5:30 PM	Mass, Fr. Gervase Degenhardt
6:00-7:00 PM	Social Hour
7:00 PM	Dinner and Entertainment
9:30 PM	Hospitality

Sunday, September 13

8:30 –10:30 AM	Hospitality
9:30 AM	District Business Meeting
11:00 AM	Garden Tours

PENN-JERSEY DISTRICT CONVENTION REGISTRATION:

Reserve rooms directly with The Inn at Cherry Hill 70 & I295, Cherry Hill, NJ 08034.
 Phone 856-428-2300. Rates are \$109/room/night (up to four people per room).
 Mention **the Rose Convention** meeting to get the special room rates.
Reserve rooms by Sep. 4, 2009!!!

Registration – Penn-Jersey District Convention on Sep 11– 13, 2009

Name(s): _____ Phone: _____

Address: _____

City: _____ State _____ ZIP _____

e-mail: _____

Registration	\$ 35.00 each	\$ _____
Late Registration (after 25 August)	\$ 45.00	\$ _____
Friday Judges School (Includes Box Lunch)	\$ 20.00	\$ _____
Friday Judges Audit	\$ 5.00	\$ _____
Friday Arrangement Audit/ Workshop (Includes Box Lunch)	\$ 25.00	\$ _____
Friday Box Lunch (Available to registrants)	\$ 15.00	\$ _____
Friday Dinner	\$ 40.00	\$ _____
Chicken Picatta _____		
Roast Loin of Pork _____		
Saturday A Rose Themed Afternoon Tea (Reservations Required) Limited Seating	\$ 25.00	\$ _____
Saturday Dinner	\$ 45.00	\$ _____
Chicken Marsala _____		
Prime Rib _____		
Total Amount Enclosed		\$ _____

Will you require vegetarian or special Dietary needs for dinners? _____yes if so, what accommodations will you need:

Will you be offering to clerk _____yes _____no ___Arrangements _____Hort

Make check payable to **West Jersey Rose Society** and mail to Susan Jacobsen 16 Broad St, Mt. Holly, NJ 08060.609-261-2744, jadelady3@verizon.net

A Ros-E-IQ

By Robert B. Martin Jr.

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 than 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”.

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	
cyfluthrin + 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	
ivermectin	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
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

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 enrichment 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 organisms. Good horticulture is the first line of defense and must be practiced before selecting any chemical for use in the sustainable rose garden.

2. 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 chemical often depends on as many as 13 factors, including, for example, the build-up of resistance. The sustainable 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.

4. “Organic” products may or may not have less impact on the environment. In the case of the insecticides, it will be seen that the five with the lowest EIQs all have OMRI listings. Of the fungicides, the one with lowest EIQ is generally considered organic, while the one with the second-

lowest EIQ has an OMRI listing. And so it initially appears 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 chemicals 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.

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	
dicosol	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	

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.

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

The Rose Vine
Published by the
Penn-Jersey District
of the American
Rose Society
1408 Ponds Edge Rd.
West Chester, PA 19382
