Would a Lilac by Any Other Name Smell So Sweet? A Search for Fragrance

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The quest for all-encompassing knowledge of his favorite genus has taken the Arboretum's plant propagator down many byways. This one required a cadre of volunteers and a high-speed computer.

The perfect lilac should have flowers at eye and nose level; the new growth should not obscure the flowers; it should sucker enough to replace old stems; it should not suffer from powdery mildew or leafroll necrosis; it should be available in your favorite color, single- or doubleflowered; and it should be fragrant! For years I've sought those perfect lilacs and the prospective parents of new perfect lilacs. I've made many notes on flowers and collected years of data on the susceptibility of different cultivars to foliar diseases, but inevitably the question arises, Is it fragrant?

It's a question I often hear when I'm recommending a lilac. My usual response is, "I'll show you the plant and you can tell me." The problem is that I am not very sensitive to fragrances. I can usually detect them, but it seems that my olfactories are quickly overwhelmed by strong fragrances, and I am then unable to differentiate or even notice them.

Wanting to fill out my knowledge of potential lilac breeding stocks, I enlisted volunteers to sniff in my stead. It would be a simple, informal survey. I would act as clerk; all these selfproclaimed "fragrance-oriented" people need do was to sniff and assign a grade. We undertook this task in 1982 and again in 1983. During peak lilac bloom, two testers and I worked our way through the Arnold Arboretum's collections in Jamaica Plain and, in 1983, at the Case Estates.

We began by sniffing a few lilacs, including *Syringa pubescens*, which is widely considered to be one of the most fragrant, although spicier



than the traditional lilac fragrance. We then moved from plant to plant. They sniffed and independently (without discussion) decided on a rating from 0 to 3 with 0 having no fragrance and 3 being the maximum. At first I doubted the ability of the testers and so I tested them, steering them to different plants of the same cultivar and even, once or twice, repeating the very same plant. Their ratings convinced me that they could detect and grade with consistency.

The Results

The mean fragrance level of all 456 samples was 1.08. Of these, 195 plants were sampled in 1982 and 261 in 1983. The overall mean for 1982 was 0.78 whereas it was 1.3 for 1983. Of these, 112 plants were sampled both years; the mean fragrance level for these was 0.84 for 1982 and almost twice as high in 1983 at 1.48. Why the difference? Conjectures are many, but perhaps the most plausible is that like the taste of wines, the fragrance of lilacs is just better some years. Certainly, few samples were taken for most cultivars, and with more years of sampling the results would be more accurate. I am less confident of the negative results than the positive; I am reluctant to say that lilacs sampled once or twice and found not to be fragrant are never fragrant. Therefore, for the following tables I have selected lilac cultivars that either were sampled more than once or received higher fragrance scores. The latter are included on the conviction that a lilac with a grading higher than the overall mean average can confidently be considered fragrant.

When complaints are made that fragrance has been bred out of lilacs, it is generally cultivars of *Syringa vulgaris* that are targeted. In view of that assertion, I included in our 1982 sampling two specimens of *S. vulgaris* that were collected in the wild in the Balkans. The testers gave them grades of 1 and 0.5 (on the scale of 0 to 3), which combines to give a mean of 0.75, a number very close to the overall mean for all plants tested that year (0.84). Certainly it's fair to say that the fragrance of these two specimens was only average. Some of the cultivars sampled possessed more fragrance, just as some had less. Undoubtedly, the same would be true of individual plants in the wild.

The first table below lists selected cultivars of the species *Syringa vulgaris* and *S*. x*hyacinthiflora*, which is a hybrid of *S*. *vulgaris* and the earlier blooming *S*. *oblata*. Cultivars of *S*. *vulgaris* and *S*. x *hyacinthiflora* look and smell much the same, the most obvious difference being that *S*. x *hyacinthiflora* bloom earlier than *S*. *vulgaris*, as much as ten days earlier.

The fragrances of the species, hybrids, and cultivars listed in the second table, while generally thought pleasant, differ from the hallmark lilac fragrance. Instead, they are often described as spicier and more pungent.

The asterisks S. vulgaris	mark cu and the o	ltivars earlier	s of the bloom	hybrid S ing S obi	yrınga x hyacınthıflora, v lata. All others are cultıva	which is ars of S	s a hyb vulga	rıd of r <i>is</i> .	
cultivut	tioner tr	pe color	number sampl	ot trastance frageance	culturer.	Rowert	ype color	number	of trastance
Adelaide Dunbar	D	VII	2	I	Boussingault	D	v	I	2
Alba Grandiflora	S	Ι	2	0.25	Buffon*	S	V	2	1.75
Alba Virginalis	S	Ι	3	0.5	C. B. van Nes	S	VII	2	1.25
Aline Mocqueris	S	VII	I	2	CAPITAINE BALTET	S	VI	3	0.83
Alphonse Lavallee	D	IV	3	I	Carmen	D	V	2	0.5
Assessippi*	S	IV	5	1.6	Carmine	S	VI	2	1.5
Azurea Plena	D	III	2	0.5	Catinat*	S	V	6	1.33
Belle de Nancy	D	V	2	1.25	Charles Joly	D	VII	3	1.67
Beranger	S	VI	I	2	Charlotte Morgan	D	VI	2	1.25
Berryer*	D	V	2	1.75	Christophe Colomb	S	IV	2	0.75
Bleuatre	S	III	2	1.25	City of Longview	D	V	2	0.75
Bountiful	S	V	2	I	Claude de Lorrain	S	V	2	0.75

Table 1

cultura	flower ty	pe color	number sample	of trastance	olltive	plower ty	pe color	number sample	st tragrance
Colbert	D	VI	3	0.83	Lamartine*	S	v	4	1.87
Comte Horace	D	V	2	Ι	LAURENTIAN*	S	III	2	1.75
de Choiseul					Leon Simon	D	IV	I	2
Condorcet	D	VI	2	Ι	Linne	D	VI	3	Ι
Congo	S	VI	2	1.5	LOUIS HENRY	D	VI	2	0.75
Croix de Brahy	S	V	2	1.75	Louvois*	S	II	3	0.83
Dame Blanche	D	Ι	2	0.5	Lucie Baltet	S	V	2	0.25
De Louvain	S	v	2	I	Macrostachya	S	V	5	1.6
Desfontaines	D	VI	I	2	Marechal	D	VI	3	0.83
Deuil d'Emile Galle	D	V	2	1.25	de Bassompierre				
Diderot	S	VII	2	0.5	Marie Legraye	S	Ι	3	0.67
Diplomate	S	III	4	0.87	Marlyensis	S	IV	4	1.5
Doyen Keteleer	D	IV	3	I	Marlyensis Pallida	S	IV	2	1.33
Dr. von Regel	S	V	3	I	Maud Notcutt	S	Ι	2	0.75
Duc de Massa	D	III	2	I	Maurice de Vilmorin	D	IV	I	2
Edouard Andre	D	V	2	1.25	Меснта	S	VI	I	2
Ekenholm	S	IV	2	0.75	Miss Ellen Willmott	D	Ι	3	о
Emil Liebig	D	III	2	I	Mme. Antoine	D	v	2	I
Emile Gentil	D	III	2	0.5	Buchner				
Emile Lemoine	D	IV	I	2	Mme. Briot	S	VI	2	0.75
Esther Staley*	S	VI	2	1.25	Mme. Casimir Perier	D	Ι	2	0.75
Evangeline*	D	VI	5	2.2	Mme. Catherine	D	Ι	2	0.75
Excel*	S	IV	2	2	Bruchet				
Galina Ulanova	S	I	I	2	Mme. F. Morel	S	VI	4	1.25
General Sherman	S	v	2	1.25	Mme. Fallieres	S	IV	5	0.8
Gigantea	S	v	3	0.83	Mme. Felix	S	Ι	2	0.5
Gloire de Moulins	S	v	3	1.33	Mme. Lemoine	D	Ι	4	0.25
Grand-Duc	D	III	2	I	Mme. Leon Simon	D	IV	I	1.5
Constantin					Monge	S	VII	5	0.4
Guizot	D	IV	2	1.25	Mons. Maxime Cornu	D	V	2	1.25
Henri Martin	D	IV	2	2.25	Necker*	S	V	2	1.5
Herman Eilers	S	v	3	0.83	Nokomis*	S	IV	2	I
HIPPOLYTE MARINGER	D	IV	2	0.25	Pascal	S	IV	2	2.5
HUGO KOSTER	S	IV	2	0.75	Paul Hariot	D	VII	2	0.75
IFAN BART	D	V	2	1.25	Philemon	S	VII	2	0.75
IEAN MACE	D	v	4	1.25	Pink Cloud*	S	VI	2	1.75
IULES SIMON	D	Ш	т Т	2	Pink Mist	S	v	2	I
IUSTII	S	III	2	- I.5	Pocahontas*	S	VII	3	I
KAPRIZ	Ď	IV	 T	5 I.5	President Carnot	D	IV	I	2
Katherine Havemeyer	D	v	4	1.25	President Grevy	D	III	3	1.33

key: flower type—D: double; S: single

color-I: white; II: violet; III: blue; IV: lilac; V: pink; VI. magenta, VII purple

culture	flowert	ipe color	number sompl	of trastance	outriver	Howert	NPe color	number	of trastance trastance
President Lambeau	S	v	I	2	Serene	S	v	I	3
President Lincoln	S	III	4	0.87	Souvenir De Simone	D	I	2	0.5
President Poincare	D	VI	2	1.75	Stadtgartner	D	VII	2	0.75
President Roosevelt	S	VII	2	1.75	Rothpletz				
PRINCE IMPERIAL	S	VI	2	0.75	Stefan Makowiecki	S	VI	3	0.5
Prince Notger	S	III	2	0.5	Sumierki	S	VII	I	1.5
Princesse Marie	S	V	2	1.25	Summer Skies*	S	VI	I	2
Prodige	S	VII	2	I	Sunset*	D	VI	2	I
PROFESSOR E. H.	D	Ι	2	0.5	Sweetheart	D	VI	Ι	1.5
Wilson					Tankman	D	v	2	0.75
Pyramidal	D	IV	3	1.67	Thunberg	D	IV	2	1.75
Pyramidalis Alba	S	Ι	2	0.5	Triomphe de Moulins	S	IV	3	Ι
Reine Elisabeth	S	Ι	2	0.5	Turgot*	S	v	3	0.5
Roi Albert	S	VI	3	1.33	Vauban*	D	v	6	2
Ronsard	S	III	2	1.25	VESTALE	S	Ι	4	0.75
Rouge de Trianon	S	VI	2	1.25	VIVIAND-MOREL	D	IV	I	2
Rubella Plena	D	VI	2	0.5	Waldeck-Rousseau	D	v	4	0.75
Ruhm von	S	VI	3	2	William C. Barry	S	IV	2	I
Horstenstein					William Robinson	D	IV	2	0.75
Senateur Volland	D	VI	2	1.5					

Table 2

ladie 2										
X CHINENSIS	S	IV	I	2	OBLATA SUBSP. OBLATA	S	v	I	3	
- Bicolor	S	Ι	Ι	2	— SUBSP. DILATATA	S	v	3	0.5	
- Metensis	S	Ι	2	2.25	PUBESCENS SUBSP.	S	IV	4	3	
 President Hayes 	S	VI	2	1.5	PUBESCENS					
- Red Rothomagensis	S	VI	2	2	— SUBSP. JULIANAE	S	v	Ι	3	
— Saugeana	S	VI	4	2.25	— SUBSP. MICROPHYLLA	S	v	2	0.5	
MEYERI	S	IV	Ι	1.5	Superba					

For Further Information on Lilacs

John H. Alexander, III. 1989. The Quest for the Perfect Lilac. Arnoldia 49(2): 2–7. This article includes a list of the fifty best lilacs for the gardens of New England plus an additional ten favorite uncommon lilacs.

——. 1978. The Uncommon Lilacs—Something Old, Something New. Arnoldia 38(3): 65–81. This article discusses some of the less common lilacs.

Acknowledgments

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The fascination that lilacs exert on the Plant Propagator of the Arnold Arboretum appears to have a genetic component. His great-grandfather, The Dahlia King of East Bridgewater, Massachusetts, raised lilacs in his commercial nursery. A generation later, his son, Jack's grandfather, proprietor of Dahliatown in Middleborough, had made lilacs a specialty of *his* nursery. Jack himself has long been active in many capacities in the International Lilac Society, which has in turn bestowed on him their Director's Award and Award of Merit.