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THE Azalean

Journal of the Azalea Society of America

Azalea Society of America

Post Office Box 34536
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Letter to the Editor

In the March 1993 **AZALEAN**, an item in the Azalea News (page 20), stated that triadimefon was a new fungicide for use against petal blight. I wonder how many other people caught the fact that triadimefon is another name for the Bayleton that we have been using. [This fungiside is also marketed under the trade-name "Strike", ed.]

William C. Miller III

❑

On the Cover: Glenn Dale 'Wanderer'

Photographer: Robert W. Hobbs

Azalea Society of America

The Azalea Society of America, organized December 9, 1977 and incorporated in the District of Columbia, is an educational and scientific non-profit association devoted to the culture, propagation and appreciation of the series *Azalea* (subgenus *Anthodendron*) of the genus *Rhododendron* in the Heath family (Ericaceae).

Regular membership is open to all interested parties for an annual contribution of $20.00. Life membership for an individual is $300.00. Members receive **THE AZALEAN** and are eligible for participation in all activities of the Society including those of the chapter with which the member affiliates. For information and membership application, write to the Secretary, Azalea Society of America, P. O. Box 34536, West Bethesda, MD 20827-0536.

THE AZALEAN

Journal of the Azalea Society of America, Inc.

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Table of Contents

VOLUME 15 NUMBER 3 SEPTEMBER 1993

1993 Annual Convention

Robert W. Hobbs
North Beach, MD

The 1993 Convention and Annual Meeting was held April 1 to 3 at the Campbell Centre Doubletree Inn in Dallas, Texas. Ninety members of the Society enjoyed a taste of Texas hospitality during their stay in Dallas. The convention featured tours to the Dallas Arboretum and Botanical Gardens and to several private gardens that featured azaleas. Other highlights included the evening talks that focussed on subjects of interest to the participants, the plant sale room, and the many opportunities for "azalea talk." Although cool spring temperatures had delayed the azalea bloom, the weather factors combined in the end to place the peak azalea bloom precisely at the time of the convention.

Photographs by William C. Miller III

On Thursday evening following registration, the participants enjoyed a preview of the convention activities given by the president of the Dallas Chapter, Steve Brainerd.

Friday morning was a bright sunny day and we boarded busses for the garden tour. The first stop was at the garden of Mr. and Mrs. Thomas O. Hicks, Jr., followed by a tour of the Dallas Arboretum where members enjoyed the azalea-filled color garden in full bloom, and the misty fern dell where azaleas provide islands of color. Lunch was served at the Arboretum.

From the Arboretum we visited two more private gardens, those of Dr. and Mrs. Willis Cottel and Mr. and Mrs. Harold Simmons, both large gardens with many azaleas in bloom. A complete description of all of the gardens that were toured appeared in the December 1992 issue of **THE AZALEAN**.

Friday evening featured two interesting speakers. First, Peter Girard, Jr. talked about the Girard Hybrids, that were developed by his late father and him. Then Dr. Clarence Towe of Walhalla, South Carolina, talked about Hybridizing Native Azaleas. An outline of his talk appears in the sidebar.

Saturday was devoted to a bus journey to Pittsburg, Texas, to visit the garden and estate of Bo and Patty Pilgrim. Saturday evening the participants enjoyed the annual banquet at the Doubletree Inn, followed by the Society's annual meeting and a talk on Deciduous Azaleas by Fred Galle. Bob Stelloh provided a report on the

TOP: Stephen Brainerd, Dallas Chapter President and newly-elected Society Vice-President, hosts the annual banquet

CENTER: Don Voss receives the Distinguished Service Award from ASA President Malcolm Clark

BOTTOM: Fred Galle addresses the convention participants on "Deciduous Azaleas"

The following information on hybridizing native azaleas was provided by Dr. L. Clarence Towe:

Hybridizing Native Azaleas (Generalizations)

(A) Why hybridize?

(1) Obtain seedlings—random pollination
(2) Obtain specific goal—very selective pollination
(3) Have fun—bicolors and blotches—thoughtful pollination

(B) Desirable traits of parents and selections

(1) Rootable
(2) Floriferous
(3) Wide petals
(4) Fragrant
(5) Vigorous
(6) Good foliage
(7) Mildew resistant

(C) Best bets for fun:

White or Pink	X	Red,	Orange or Yellow
R. arborescens		*R. atlanticum/alabamense/canescens*	*R. nudiflorum/roseum*
X		X	X
R. bakeri		***R. speciosum***	***R. bakeri***
or		***or***	***or***
R. prunifolium		***R. austrinum***	***R. calendulaceum***

(D) General suggestions:

(1) Use hybrid(s) as parents—large gene pool gives variance
(2) Use *arborescens* or *atlanticum* rather than small whites
(3) Germinate seeds in December—24 hours light until spring
(4) Potting medium should drain immediately (sand/peat/perlite)
(5) Root cuttings early—mist—24 hours light for 4-6 weeks
(6) Miracid—1 tsp. per gallon for seedlings; 1 Tbsp. per gallon for cuttings/pots
(7) Raise 25 from one cross rather than 5 from 5 crosses

status of the George Harding memorial garden being developed at the American Horticulture Society's headquarters in Mount Vernon, Virginia. Two amendments to the Society's by-laws were also approved. These amendments, the text of which were published in the December 1992 issue of **THE AZALEAN**, have to do with investment management and budgeting.

As reported in the December 1992 issue of **THE AZALEAN** the annual meeting included the report of the nominating committee on the results of the mail ballot for the officers for 1993-1994 and the directors class of 1995:

President: Malcolm Clark

Vice President:
Stephen S. Brainerd

Directors: Jeff Beasley, Fred Minch, Rosalie Nachman

Also announced at the Annual Meetings were awards from the Society for 1993 as follows:

Distinguished Achievement: Mr. Fred Galle

Distinguished Service: Mr. Don Voss

Best Article in **THE AZALEAN** for 1991: Ms. Jane Newman

The minutes of the Board of Directors meeting held in conjunction with the Annual Meeting were summarized in the June 1993 issue of THE **AZALEAN**. ❑

Correction of Parentage for Some Glenn Dale Azaleas

Richard T. West
Columbia, MD

A comparison of Glenn Dale hybrid azaleas parentage data published in U.S. Department of Agriculture (U.S.D.A.) Monograph 20, *The Glenn Dale Azaleas*, by B. Y. Morrison, and original records from the U.S.D.A. Plant Introduction Station at Glenn Dale, Maryland, where the Glenn Dale azaleas were developed, shows forty-seven (47) errors in the parentage printed in Monograph 20 (1). Additional examination of the data has identified one other likely error, but it cannot be proven or the correction known at this time. Because Monograph 20 is the public record for the Glenn Dale azaleas, and hence the source of official information, all other lists are also in error; for examples, in Galle's *Azaleas*, and in Lee's *The Azalea Book*. Azalea enthusiasts who make comparisons of azaleas based on parentage or sisterhood and anyone hybridizing from Glenn Dale stock should be advised of these errors.

Background

To assist in my Glenn Dale azalea research, William C. Miller III allowed me to copy his extensive file of old records for the Glenn Dale hybridizing program from the Plant Introduction Station. These records include inventories of azaleas and their parentage, hybridizing crosses made, and selection lists. All azaleas were identified by a unique number, and the numbers also referred to the history of the cultivar (2). From these records, it is possible to trace almost all of the Glenn Dale hybrids back to their original crosses, also identified by a number. In 1991, I compiled a computer database and produced tables of seed lots and sisterhood (3). At that time I noticed that the parentage for some Glenn Dales was given incompletely in Monograph 20. Specifically, three Glenn Dale crosses involved the already introduced hybrid `Ivory' which has the parentage of (kaempferi x Mucronatum) x Mucronatum); it is correctly stated for `Ivory' in Monograph 20. From these crosses, 29 cultivars were named as Glenn Dales, but the seed parent of `Ivory' for each of the cultivars is stated incompletely in Monograph 20 as "kaempferi x mucronatum" (4).

In February, 1993, I received a letter from Jane M. Newman in response to an article I wrote about finding the Glenn Dale hybrid `Luna' at the Ten Oaks Nursery (5). She asked if `Valentine' had been found at Ten Oaks and noted the apparent sisters of the cultivar based on Monograph 20 information—for example, `Commando'. In preparing a response to Jane, I used the computer database and discovered that `Valentine' and `Commando' were not sisters, and that errors had been made in the published information. With that discovery, I compared all of the parentage data in Monograph 20 with the database, and found 47 errors of various kinds.

Errors Found

The errors in Monograph 20 are of two kinds: incomplete statements of parentage, and misstatements of parentage for some—but never all—of the selections made from the results of a given cross; i.e., seed lot. The errors and the hybrids involved are as follows:

1. 'Ivory' ((kaempferi x Mucronatum) x Mucronatum) is the seed parent in crosses B.33351, B.33352, and B.33353. For the 29 selections made from these crosses, the formula for `Ivory' is incompletely stated as only "kaempferi x mucronatum." The cultivars in need of correction are for B.33351: `Angela Place', `Bohemian', `Carrara', `Cupid', `Dazzler', `Ember', `Eucharis', `Harbinger', `Helen Close', `Polar Sea', `Radiance', and `Saga'; for B.33352: `Coral Sea', `Cordial', `Luminary', `Masterpiece', `Mavis', `Parade', and `Trophy'; and for B.33353: `Altair', `Chameleon', `Janet Noyes', `Joker', `Masquerade', `Punchinello', `Shimmer', `Sorcerer', `Taffeta', and `Valentine'.
2. Another incomplete statement of seed parent: `Mandarin' has the seed parent of "indicum x Momozono," not just "indicum"—the only error in the five selections from the cross.
3. Error in the pollen parent for seed lot B.13575: two of the five selected are printed incorrectly—`Ballet Girl' and `Pixie'.The pollen parent is "Kyumiyagimo," not "Miyagimo." (Note that Monograph 20 uses the spelling of "Miyagimo," whereas the correct spelling seems to be "Miyagino." Glenn Dale records have it spelled both ways.)
4. Error in pollen parent in seed lot B.13571 for one of three selected: `Pastel'. The pollen parent is "Miyagino," not "Kyumiyagimo" (see above note).
5. Error in pollen parent in seed lot B.33367 for seven of 13 selections: `Consolation', `Dowager', `Moonstone', `Niphetos', `Scherzo', `Silver Cup', and `Whimiscal'. Parent is "Fukuju," not "Fukurokuju."
6. Error in the seed parent of cross B.33360 for three of six selections: `Com-mando', `Picotee', and `Vestal'. The seed parent is "(Mucronatum x Vittata Fortunei)", not "(kaempferi x Mucronatum)".

7. Typographical error in the pollen parent of B.33349 for one of three selections: `Damask' has the pollen parent of "Chojuraku," not "Chojakuru" as printed.
8. Error in pollen parent of B.13559 for one of three selections: `Bopeep' has the pollen parent of `Marta' and not `Amoena'. [Note that Monograph 20 text identifies `Caress' and `Dayspring' as sisters to `Bopeep' even though the printed pollen parent is different!]
9. Error in both parents for B.33365 for two of six selections: `Safrano' and `Trousseau' have parents of "(Mucronatum x Vittata Fortunei)" x "Kagetsu," not "mucronatum x Keisetsu."

Discussion

It is not clear why all the errors occurred. Some errors are typographical, which happens to everyone in publishing no matter how good the proofreading. Other errors may relate to confusion about the variations in Japanese names and spelling. Unfortunately, many mistakes are errors in information, either incomplete or wrong data. These errors may have been made as early as November, 1951, by Morrison when, at the time of his retirement, he wrote a letter to his U.S.D.A. colleague Frank Dowdle in which he stated, "Herewith as I copy them are the records on the complete...Glenn Dales. ...this should be as nearly type perfect as I can manage" (6). The attached records show that individual(s) did review them and some corrections were made, but obviously not for everything. Over the next year, 1952, Morrison compiled the Monograph 20 manuscript presumably with the assistance of U.S.D.A. personnel, but errors remained. My own guess as to why errors happened is that Morrison and others were simply overwhelmed with data spanning some 20 years of the Glenn Dale hybridizing program. Although they generally did a magnificent job with the mass of information in Monograph 20, it was just too hard to remember or to check all the myriad details. After all, the only way I was able to find errors was with the help of the computer database.

In responding to Jane Newman's inquiry and given her interests in the Glenn Dales, Bill Miller and I agreed to enclose a copy of the database tables. Jane wrote back with a number of comments about the relationships between Glenn Dale azaleas. One question prompted further examination of the records: "I'm curious about whether a named selection from cross 13615 was used as the seed parent of cross 38971 and, if so, which, and where did the white genes come from..." (7). Her question was prompted because she saw that the selected Glenn Dales from cross B.38971 were `Lyric', `Nativity', `Omen', and `Undine', all of which are white-flowered, and `Wanderer' which has pink-rose flowers. According to Monograph 20 information, the parents of these azaleas and the formula for B.38971 was "(macrantha orange x Momozono) x (Osakazuki x Flame)." The records show that the seed parent was the named Glenn Dale hybrid, `Illusion' (B.32243, PI 160018), and the only Glenn Dale cross with the given pollen parent formula was B.18421. `Illusion' was one of 25 named selections from cross B.13615; three named selections came from cross B.18421. For all of these 28 selections made from the parents' seed lots, the resulting flower color is either pink or rose with no whites, and that's why Jane asked the question. Before getting into any genetic issues of color inheritance in a response to her, I first examined the records from Glenn Dale (8).

During World War II when the azalea program was halted at the Glenn Dale facility, Morrison raised a number of seedling plants at his home in Takoma Park, Maryland, that were the results of crosses made in 1941 or 1942. These crosses included selected Glenn Dale seedlings, some of which had already been named and introduced. In 1946 Morrison moved the seedlings back to Glenn Dale where they were given identifying numbers and the parentage was recorded. In some cases, the formula of the cross was identified by Morrison with a number: for example, seed lot B.38968 —B.27416 x B.27401 "Sown by B.Y.M. as #6." The one of interest here was recorded in 1946 as "B.38971—B.32243 x No. 1 `BYM #40'." B.32243 was `Illusion', but what "No. 1" was wasn't known to the recorder at the time, and there was the notation, "BYM has pedigree." By 1951 the correct formula information had gotten confused and corrupted: it had become, "mac. orange x momo zono x B.Y.M.'s #40." In the next year a record stated, "B.Y.M.'s #40 is Osakazuki x Flame," with the result that the pollen parent was given as "Osakazuki x Flame" for the five selections from B.38971 in Monograph 20.

The correct pollen parent for the five selections is "No. 1" according to Morrison. "B.Y.M.'s #40" referred to the seedling result of the cross, not the pollen parent. Furthermore, the formula of "Osakazuki x Flame" was used in other crosses at the same time by Morrison, but it was not identified by a number. Nothing I have found in the records gives any clue to what "No. 1" might have been or what the answer is to the parentage, so I recommend a question mark be placed next to the pollen parent for the 5 selections of `Lyric', `Nativity', `Omen', `Undine', and Wanderer' at the very least. My own guess is that "No. 1" stands for one of Morrison's first selections from his earliest azalea hybridizing and the first Glenn Dale selected: `Ivory' ((kaempferi x Mucronatum) x Mucronatum).

Conclusion

Forty-seven errors have been found in the parentage of Glenn Dale hybrids as printed in Monograph 20. A question about color inheritance led to the discovery of a likely addi-

tional error, but the correction is not yet known. Correction of all Glenn Dale lists is advised.

References

1. Morrison, B. Y. *The Glenn Dale Azaleas*, U.S. Department of Agriculture, Monograph 20, Government Printing Office, Washington, D.C., 1953. Reprinted in 1978 by Theophrastus Publishers, P.O. Box 458, Little Compton, RI 02873.

2. The numbering procedure used at Glenn Dale is explained in some detail in: West, R. T., Miller III, W. C., and Bullock, B. L. "The Massed Glenn Dale Azaleas on Mt. Hamilton: A Valuable Collection at the National Arboretum". *THE AZALEAN* 14 No. 1 (1992): 8-13.

3. The printed "Glenn Dale Azaleas Seed Lots and Sisterhood" tables can be purchased from *The Azalea Works*, 7613 Quintana Court, Bethesda, MD 20817.

4. The incomplete parentage data problem was first mentioned in: West, R. T. "`Luna' Found". *THE AZALEAN* 15 No. 1 (1993): 12-16.

5. The `Luna' article is cited above.

6. I have copies of this letter and the other original Glenn Dale records referred to in the article.

7. Jane Newman's exceptional powers of observation of the Glenn Dales are shown in her recent article: Newman, J. "Trying to Identify Those Glenn Dales". *THE AZALEAN* 14 No. 1 (1992): 14-21.

8. It is possible to get white from a cross of colored flowers; see: Galle, F. C. *Azaleas*. Portland, OR: Timber Press, 1985, page 406.

Dick West, a native of Washington, DC, is a long-time member of the Azalea Society and is interested in the Glenn Dale hybrids. He is an regular contributor to THE AZALEAN. ❑

The Ten Oaks Glenn Dale Project Begins

Richard T. West and William C. Miller III
Columbia, MD and Bethesda, MD

The Ten Oaks Glenn Dale Project began in July 1993 with the first shipment of Glenn Dale hybrid azalea cuttings to ten cooperators throughout the United States. The project was announced in the March 1993 issue of **THE AZALEAN** (1). The purpose of the project is to establish regional reference collections of the Glenn Dale azaleas in addition to that at the U.S. National Arboretum.

Both of us have a long-standing interest in the Glenn Dale azaleas, and we agreed many years ago that a complete collection of the 454 hybrids would be a valuable resource. We knew that many others, including B. Y. Morrison, who was the director of the Glenn Dale hybridizing program, had failed in trying to establish complete collections over the past forty years, and we recognized that it would be harder now with many cultivars being rare or perhaps lost altogether. Finding the unique collections of identified azaleas, including a very large number of the Glenn Dales, at the Ten Oaks Nursery in Clarksville, Maryland, made the goal of putting together complete collections much more feasible (2, 3). In 1990 propagation began from the Ten Oaks stock to reconstitute the Glenn Dales at the U.S. National Arboretum. We believed also that it would be good to have Glenn Dale collections in other parts of the country to provide regional accessibility as well as the duplication of reference collections. Additionally, we hoped it might be possible somehow to assist in promoting commercial propagation to respond to the renewed interest in acquiring Glenn Dales. The question was how to do these things.

We briefly considered expanding the propagation being done for the National Arboretum, but we quickly realized that rooting cuttings and distributing plants on a larger scale was beyond our capacity. Not being nurserymen and not being near Ten Oaks made what would have been a replication, in effect, of the original U.S. Department of Agriculture's Glenn Dale distribution program simply impossible in terms of workload and cost. However, the substitute idea of a distribution of Glenn Dale cuttings did seem reasonable and doable: by sharing the effort of distribution and propagation we thought it could work. The announcement in **THE AZALEAN** stated, "We would like to identify a group of individuals (cooperators) and (with the help of the cooperators) regional public gardens/arboreta around the country that recognize the importance of this opportunity and that would be willing to participate in the development of collections of Glenn Dale hybrid azaleas in their respective regions." Interested parties were asked to submit a letter describing their facilities and qualifications to undertake our proposal and to identify the reputable public garden that had agreed to receive the plants. They were told that one specimen of each cultivar must be given to the garden, but that they could do what they wanted with the rest, including our hope they would be used as stock plants for further propagation for public sale. They were also told that the only cost to them would be for shipping.

Ten cooperators have been selected for the project; they are, along with the designated gardens:

Jan Bowman
Orinda, California
Oakland California Horticultural Gardens

Hugh A. Caldwell
Middleburg, Florida
Bellingrath Gardens

Perry L. Corkern
A & P Nursery
Franklinton, Louisiana
New Orleans Botanical Garden

Rick D. Ewing
Muskogee Parks & Recreation Department
Muskogee, Oklahoma
Honor Heights Park

Freida Hill
Hill's Nursery and Greenhouse
Pavo, Georgia
Thomasville Garden Center

Ronnie D. Palmer
Azalea Hill Gardens and Nursery
Pine Bluff, Arkansas
Missouri Botanical Gardens

Frank Pelurie
The Nursery at Dutch Ridge
Clendenin, West Virginia
West Virginia Botanical Garden at Coonskin Park

Ben C. Reid
Stockbridge, GA
Vines Botanical Garden

Pete Sheuchenko
Barboursville, Virginia
Montpelliar Estate Gardens

J. Keith Suddreth
Lenoir, North Carolina
Broyhill Walking Park

After making arrangements with the Adams family who own Ten Oaks, we began cutting early on the morning of July 20 and finished in the early afternoon. We took between one and eight cuttings from 57 Glenn Dale cultivars, put them in water for a while, placed them in plastic bags with labels, and put the bags in a Federal Express box for each cooperator. Each got some 300 total cuttings (average of five or so per cultivar), and overall we took some 3,000 cuttings. For this first shipment, we chose to cut primarily solid colors which had few sports, such as `Snowclad' and `Blushing Maid'. Next year and later, we will remove sports from other cultivars before cutting or tag branches to avoid cutting sports.

The azalea plantings at Ten Oaks have been essentially untouched for forty years. In a few cases, plants are in poor shape, being overly shaded or crowded. Some areas are a thicket of ten-foot tall intertwined branches. We took what cuttings were available, which included using a step ladder at times or crawling to follow a branch for ten feet through other plants before cuttings could be found. The good part of Ten Oaks is that natural growth can be studied and documented, but the bad part is that high quality cuttings can be hard to get. The boxes were sent to the cooperators by Federal Express overnight delivery.

We have stressed the need for the cooperators to verify the correct identity of each cutting provided. The last thing we want to happen is the propagation of incorrectly named plants. We have promised to replace any incorrect cuttings as well as any that do not root. We believe the best philosophy nowadays is not to trust anything in the marketplace, even those readily identifiable hybrids such as `Pixie' and `Dayspring'. Accordingly, we will be shipping cuttings of all identified Glenn Dales at Ten Oaks, in effect to rebuild collections from scratch. For their information and to assist in verification, we have sent the cooperators copies of B. Y. Morrison's, *The Glenn Dale Azaleas*, U.S.D.A. Monograph 20, published in 1953, which is the official record of the Glenn Dale hybridizing program and the hybrids produced. We have also sent them a color translation chart that came from a Ruth Harrington article in **THE AZALEAN** in December 1988 to help with the old, and now mostly unknown, Ridgway color nomenclature used in Monograph 20 (4). We appreciate that the issue of absolute color may well be a problem.

We are pleased to say initial reports indicate that, on the whole, the first shipment of cuttings worked out satisfactorily. Next year, if it is acceptable to the cooperators, we plan to make two shipments, each of cuttings of 50 cultivars for a total of about 600 to 700 cuttings of 100 Glenn Dale hybrids. We are keeping records of what is cut and mailed with the idea of tracking the placement of plants in the arboreta and gardens and of being able to direct interested parties to sources of correct Glenn Dale material.

We wish to acknowledge that this project is possible only because of the azalea collections at the Ten Oaks Nursery and the foresight of the Adams family, and, notably, the encouragement and support of Andy Adams. It is the willingness of the cooperators and gardens to be involved in developing Glenn Dale reference collections, however, that will make it succeed. Progress reports will be published periodically.

References

1. West, R. T. and Miller III, W. C. "Ten Oaks Glenn Dale Project". *THE AZALEAN* 15 No. 1 (1993): 16.

2. West, R. T. "Distribution of the Glenn Dale Azaleas and the Ten Oaks Nursery". *THE AZALEAN* 11 No. 4 (1989): 69-73.

3. West, R. T. "The Azaleas at Ten Oaks Nursery: A Preliminary Report". *THE AZALEAN* 14 No. 3 (1992): 65-69.

4. Harrington, R. "The Many Colors of Azaleas". *THE AZALEAN* 10 No. 4 (1988): 73-75.

***Dick West**, a native of Washington, DC, is a long-time member of the Azalea Society and is interested in the Glenn Dale hybrids. He is an regular contributor to THE AZALEAN.*

***Bill Miller** is a former Vice President of the Azalea Society, co-chairman of the Membership Committee and chairman of the Public Information Committee. He is a member of the Brookside Gardens Chapter and has served as chairman of Horticulture for the chapter's annual flower show for many years. He is a frequent contributor to THE AZALEAN.* ❑

Rhinocapsus vanduzeei Uhler, A Little Known Pest of Azaleas

William C. Miller III
Bethesda, Maryland

Photographs by Dr. S. Kristine Braman

Rhinocapsus vanduzeei is probably a fairly common inhabitant of our azalea gardens even though it is not listed in any of the azalea books. Few people seem to be familiar with it, and it does not seem to have a common name. Generally considered to be a pollen feeder or plant eater, my initial introduction to this brilliant red bug included discovering that its most significant characteristic, as I learned first hand (no pun intended), is not its brilliant red color, but rather the fact that it bites. Based on my experience, I am going to add it to my list of azalea pests even though it may have some redeeming qualities.

R. vanduzeei is a member of the family *Miridae* which is the largest group within the Order *Heteroptera* or the true "bugs." Reportedly distributed from Canada south to Florida and west to Texas, it probably can be found wherever azaleas are found. In 1926, wild red raspberry species were recorded as the primary host plants. Today, native and cultivated azaleas are recognized as the preferred host. Typically overwintering in the stems of azaleas, the eggs hatch in early to mid April, proceeding through five nymphal stages or instars, with adults developing in mid-May in the Washington area. The newly hatched nymphs, less than one millimeter in length, are not initially so distinctively colored. Later nymphs are bright red and between one and one-half and three millimeters in length, with the gradual development of dark brown or black wings. Adults, nearly four millimeters (0.15 inches) in length, become more of an orange with distinctively contrasting, black wings. Mating and egg laying take place in June and by late June, when most of the azaleas have finished blooming, the cycle is complete.

My interest in *Rhinocapsus* began when I noticed a small, red bug on one of a number of deciduous azaleas that were then blooming in my back yard. Much too big to be a spider mite, a common azalea pest which is red, this new insect seemed to have a preference for deciduous azaleas that were flowering. With as many as a dozen individuals per plant, there did not seem to be any obvious damage attributable to this bug which I thought, for better or worse, reminded me of a bright-red aphid. At the time, I wondered if this new bug might have been associated with my white-pine canopy and was in my azaleas by coincidence due to proximity. This would explain why I could find no reference to anything like it in any of my azalea books. By observation, I determined this new discovery was approximately three millimeters long, had three pairs of legs, and moved rapidly when disturbed. Turning to my modest collection of insect books did not help. Even though there was no way that I had something rare in my back yard, I concluded that I was going to need a picture of this insect if I was ever going to find out what it was. For those of you who are metrically challenged, three millimeters is slightly more than one-tenth of an inch. While I am fairly comfortable with my SLR Nikon Model FM camera, a good photograph would require closeup lens, light and depth of field considerations, and a cooperative subject. As it turned out, two out of three was the best that I could hope for.

Figure 1. (Top) A juvenile* Rhinocapsus vanduzeei *Uhler feeding on a thrip.

Figure 2. (Bottom) An adult* Rhinocapsus vanduzeei *Uhler.

When disturbed, the subject would very quickly and consistently seek cover where my camera could not conveniently follow—the bottom of the leaf or the other side of the stem. If I was ever going to get a decent picture, I was going to have to figure a way of isolating the subject and limiting its mobility. My solution was to place the subject on my hand and adjust my hand as it moved. As expected, the subject moved quickly, presumably looking for cover. Then, for some reason it suddenly stopped moving. As my finger began to bear down on the camera's shutter release, I suddenly discovered why my subject stopped moving. It bit the living daylights out of me!

Armed with the knowledge that a proper description now had to include the fact that my mystery bug was not entirely meek and defenseless, I decided I had enough "raw

data" to check with my horticulturist friends who are closer to such matters. I theorized that they would certainly be able to tell me what I had stumbled across based on the strength of my newly enhanced description. To my surprise, none of my horticulturist friends could tell me what I had discovered. When I presented a specimen to a Master Gardener Clinic, they could not tell me what I had either. They did not have a clue though they thought that its mobility suggested that it might be a predator. This was proving to be a real challenge. I had already invested many hours into this investigation with little to show for it except a sore and swollen finger.

Frustrated and now wounded, I decided "to pull out all of the stops." I called Dr. John Neal, an entomologist with the U.S. Department of Agriculture, an ASA member, and more importantly, a friend of long standing who has been very patient with earlier questions regarding matters entomological. He was familiar with the bug that I was describing but could not come up with the name on the spot. He was sure that it was a plant eater, was not uncommon, and he would get back to me. Dr. Neal subsequently sent me a copy of a 1979 American Rhododendron Society Quarterly Bulletin which contained an article by Drs. A. G. Wheeler, Jr. and Jon L. Herring on *R. vanduzeei* entitled "A Potential Insect Pest of Azaleas" (1). It was a direct hit. There was no doubt. My bug now had a name and a history dating back to 1890.

Given that the ARS article was fourteen years old, I expected that there must be more information available. I contacted Dr. Thomas J. Henry (2), mentioned in the ARS article, and Dr. A. G. Wheeler, Jr. (3), one of the authors, to see what the latest information was. Drs. Wheeler and Henry are authors of the Mirid section of a catalog entitled *Catalog of the Heteroptera, or True Bugs, of Canada and the Continental United States* which was published in 1988 (4). They indicated that the basic biology communicated in the ARS article was still pretty accurate though the references to distribution could probably be updated to indicate that *R. vanduzeei* is likely found wherever azaleas are found. Further, Dr. Henry also indicated that there was reason to believe that, like many of the mirids, it might have predaceous tendencies, as he had observed that it could be lab-reared on squashed caterpillars. Finally, Dr. Wheeler suggested that I contact Dr. Kris Braman of the University of Georgia for her observations of its predatory behavior (5). Dr. Braman has studied the effect of *R. vanduzeei* on thrips species and the azalea lace bug. In 1992, she obtained *R. vanduzeei* from azaleas at Callaway Gardens in Pine Mountain, Georgia and measured the "consumption rate" or the ability of *Rhinocapsus* to consume various stages of the azalea lace bug. She found that fifth instar and adult *Rhinocapsus* were a particularly effective natural enemy or control of juvenile azalea lace bugs (6).

In conclusion, I believe I have learned a great deal from this experience. First, there is the message that *Rhinocapsus* should be seriously considered as an element in an Integrated Pest Management program for azalea pests. Second, I am still going to add it to my improved list of azalea pests. Third, in the future, I am going to do my best to stay out of its way in my garden. And finally, fourth, I am going to revise my technique for handling uncooperative photo subjects.

References

(1) Wheeler, A. G. Jr. and Herring, Jon L., A Potential Insect Pest of Azaleas, *The Quarterly Bulletin of the American Rhododendron Society*, Vol. 33, No. 1, Winter 1979, pp 12-14.

(2) Dr. Thomas J. Henry is a systematic entomologist with the National Museum of Natural History in Washington, D.C.

(3) Dr. A. G. Wheeler, Jr. is an entomologist with the Bureau of Plant Industry of the Pennsylvania Department of Agriculture in Harrisburg, Pennsylvania.

(4) Henry, T. J. and Wheeler, A. G., Jr. 1988. Family Miridae Hahn, 1833 (=Capsidae Burmeister, 1835), pp. 251-507. In T. J. Henry and R. C. Froeschner [eds.], *Catalog of the Heteroptera, or True Bugs, of Canada and the Continental United States*. Brill, New York.

(5) Dr. S. Kristine Braman is an entomologist with the Department of Entomology of the University of Georgia at the Georgia Experimental Station in Griffin, Georgia.

(6) Wise, J. A., Braman, S. K., and Espelie, R. E., *Natural Control of the Azalea Lace Bug in the Landscape*. SNA Research Conference, Vol. 37, 1992, pp 28-29.

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❑

Designing with Azaleas
Contrasting and Blending

Stephen Brainerd
Dallas, TX

Exciting landscape design elicits positive human emotions. Azalea flower color and diverse varietal form provide rich resources which combined with strong landscape design can be breathtaking. This article will explore concepts of design and qualities of azaleas that lend themselves to exciting landscape design.

Landscape design necessarily begins with a plan. Like pieces of a puzzle, the individual pieces affect each other in such a way that an overall goal is necessary to create order and beauty. Pleasing design brings order and clarity to human senses. Strong landscape design minimizes confusion to the human mind. Landscape design is concerned with directing the eye, directing human traffic, human use of spaces, and an anticipation of human needs and preferences both present and future. Exciting landscape design planning satisfies the physical and emotional needs of human beings.

Landscape design can be compared to the architecture of a house. The roof of the "house" is the canopy trees, providing shade from the sun and a sense of secure cover. The walls of the "house" are the trunks of the trees, shrubs, fences, and vines, providing division of space. The floors of the "house" are the ground covers such as lawn grasses and paving materials, which provide surfaces upon which to walk, drive and play. Azaleas most commonly serve as walls for the "house"; dividing space, directing traffic, and providing adornment.

Form is an important concept in constructing the landscape walls. Many of the Kaempferi azaleas are vertical in form, Kurume azaleas are generally spherical in form, and the North Tisbury azaleas are known for their low ground-cover forms. Strong landscape design utilizes a variety of well defined forms to appeal to the human need for diversity. Similarity and linearity in design can become very boring. Just as a multi-layered wedding cake is more interesting in form than a single-layered pan cake, azalea walls become more interesting with multiple layers rather than the flatness that similarity introduces. Strong design brings order to form which can be more appealing than the amorphous, ill-defined form characteristic of chance. Azalea planting design can be initiated with sketches reflecting pure form followed by the selection of appropriate azalea varieties. There should be a purpose for the placement of each plant. An undesirable view may be screened by a large evergreen azalea, or a pathway defined by a narrow, upright evergreen azalea. A seating area might benefit from a deciduous azalea which provides shade from the sun in the summer but allows light to enter in the winter. Many times a desirable view is enhanced using low growing azaleas in the foreground with viewing space above them. Try sketching purely with form to redesign an existing azalea bed or prior to the construction of a new azalea bed. Azalea plantings are enhanced with a variety of form.

Scale is another concept which must be considered in design. A North Tisbury hybrid might be in scale and appropriately planted under a low window where a clear view is desired, while a Southern Indian hybrid would be out of scale and inappropriately planted in the same location, because it blocks the view with its size. A Beltsville Dwarf hybrid might be inappropriately planted in a large space, much like furnishing your living room with doll furniture, whereas a Southern Indian hybrid would be in scale, filling the same space provided. Scale concerns balance. If the design demands a plant that is fifty feet tall and fifty feet wide, a canopy tree is selected rather than an azalea.

Azaleas direct traffic and define spaces as the walls of the landscape, but their major impact is probably on the human psyche. Table 1 lists some qualities that evoke human emotion. Active qualities that evoke human emotion are listed on the left opposite the contrasting passive qualities. For example, jagged qualities generally evoke human fear or caution, whereas smooth qualities are generally perceived by humans to be soothing and tranquil. Table 2, which is divided into advancing and recessive columns, lists some qualities that affect human perception. Advancing qualities appear to be closer to the viewer than recessive qualities when viewed from the same distance. The concept of color intensity is shown in Table 3. As white is added to high intensity colors, the perception is that the colored object becomes more distant as it becomes more washed out. As more and more white is added, the white begins to advance. The color wheel is introduced in Table 4. High color contrasts are opposite positions on the color wheel; for example, red and green. Low color contrasts are adjacent colors on the color wheel. Shades are color mixed with black. Tints are color mixed with white. Many azalea flower colors are tints. Let's explore Tables 1, 2, 3, and 4 for applications in designing with azaleas which will evoke positive human responses.

Table 1

Qualities That Evoke Human Emotion

Active	Passive
Jagged	Smooth
Instability	Stability
Vertical	Horizontal

Table 2

Qualities That Affect Human Perception

Advancing	Recessive
Coarse texture	Fine texture
High color intensity	Low color intensity
Shiny	Flat/dull
High contrast	Low contrast

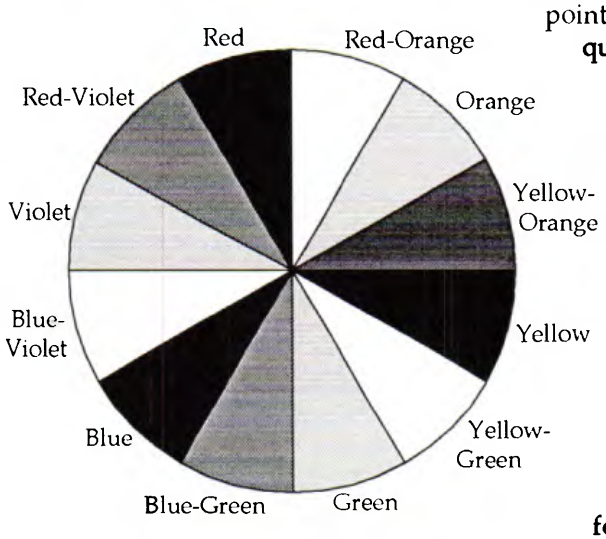
Table 3

Color Intensity

High Low

Table 4

Color Wheel



Designing with azaleas for high emotional impact is much like building a house or painting a picture. To establish order and clarity of purpose it is wise to establish a vision of the final product either on paper or in the designer's mind. The clarity of the azalea planting plan will be reflected in the planted design's impact. Azalea plantings to be viewed only from a few specific vantage points are somewhat easier to design with enhanced impact than plantings which have greater human interaction. Focal points are generally used to capture and direct the human eye. The focal point will generally be an advancing quality that affects human perception or an active quality that evokes human emotion. The focal point is typically placed in the center of the view or slightly off center to the viewer. A secondary focal point which is less eye catching is generally placed to the right of the primary focal point. In most cultures of the United States, left to right is the generally accepted path of expected eye movement. The focal points are framed in recessive or passive qualities. Balance color, form and texture in the planting! Color is dominant over texture. Design to the speed and distance of the viewer. The higher the speed and the more distant the viewer, the more uniform and simple the planting should be such as a front yard facing a public street. The slower the speed and the closer the viewer, the more complex and diverse the planting should be such as a private garden used for relaxation. The color of azaleas in full flower can be very dramatic, but by contrasting the color at the focal points, then blending color by using adjacent color on the color wheel and recessive color, azalea plantings can truly become breathtaking.

Azalea design can become a challenge when only azaleas are used to create the planting. Decisions must be made as to a single show of color versus an extended bloom. An extended bloom will reduce the impact of color (which may be a blessing). Flowering azaleas must be used with restraint so that they do not dominate to the point of overpowering a tastefully color coordinated planting. Leaf color in the fall and winter, particularly the enhanced leaf color of azaleas planted in full sun, becomes a design element that is very appealing. Red and pink flowered azalea varieties generally have bronze or wine colored fall and winter foliage. White flowered azalea varieties generally have green fall and winter foliage. A successful methodology for designing azalea plantings after form is established is to plan attractive patterns in winter leaf color and texture, then fine tune for flower color and bloom period. Many varieties consistently flower in the spring and the fall. The spectacular color display of the early blooming Kurumes is very different from the color display of many of the later blooming Satsukis. Many very cold-hardy azaleas will lose most of their leaves in the winter whereas other more southern azaleas will retain most of their leaves. The similarity of azalea leaf texture is the single characteristic that holds an azalea planting together regardless of the season, texture is the thread in the cloth that ties the planting together.

In design there are no rules. Beauty is in the eye of the beholder. I have quantified some of the design elements that I have found to be personally appealing. I hope that this article provides a resource for thought and possibly some explanation for what you have felt but may not have been able to express. Enjoy your azaleas! ❑

Azalea Week and Show in Hammond, Louisiana[1]

R. J. Constantin[2]
Hammond, LA

Mayor Charles McKaskle officially proclaimed the week of March 22-28, 1993 as Azalea Week in Hammond, Louisiana since (1) Hammond is located adjacent to a major nursery stock production area of Louisiana where azaleas are propagated in large quantities, (2) azaleas are grown profusely on both private and public lands in Hammond, and (3) several private formal display gardens dedicated to azaleas are located near Hammond.

On Saturday and Sunday, March 27-28, the Louisiana Chapter of the Azalea Society of America hosted an Azalea Show at the LSU Agricultural Center's Hammond Research Station. The show was designed as an educational display to let people see that many types and hybrids of azalea are available for growing and use in the landscape. Chapter members exhibited many specimens from several hybrid groups of azaleas, as well as seedlings and selections of deciduous azaleas native to the area. A display of locally bred rhododendrons was particularly impressive. Tangipahoa Parish agents from the LSU Agricultural Center Louisiana Cooperative Extension Service held demonstrations on pruning, fertilizing, and proper care of azaleas.

On March 12, a storm hit the nation, causing approximately two inches of snow to fall in the Hammond area. The snow, plus winds of 30-40 mph, caused severe damage to the azalea blossoms. Temperatures dropped to 23°F the following day. Many blooms on some varieties were completely destroyed; however, some varieties had a few blooms by show time. The show was well attended despite the earlier snow and cold temperatures.

Plans are being made to have the Azalea Week and Azalea Show as an annual event in Hammond. Residents are being asked to plant trees and azaleas in their yards to help beautify their city.

1 Approved for publication by the Director of the Louisiana Agricultural Experiment Station as manuscript number 93-68-7180.

2 Dr. R. J. Constantin is Professor of Horticulture and Resident Director, Hammond Research Station, Louisiana Agricultural Experiment Station, Louisiana State University Agricultural Center, 21549 Old Covington Highway, Hammond, LA 70403. ❑

Society News

Ben Morrison Chapter
Sue Switzer, *President*

Our last meeting was held on Sunday, July 11, 1993, at 2:00PM at the Switzers' for our annual picnic and pot-luck lunch. This was our annual meeting and the officers for 1993-94 were elected:

President: Dale Flowers
Vice-president: Nuran Miller
Secretary: June Thomas
Treasurer: Sewell Moore

Our next meeting will be held at the Dunkirk Library on September 19, 1993 at 2:00PM.

The Ben Morrison Chapter also had a table at the Homestead Gardens Crape Mytle Festival on July 24-25. Lots of thanks to: Sue & George Switzer, Jean Cox, David Radcliffe, June Thomas, Margaret Church and Bob & Bee Hobbs for manning the table. Thanks also to William C. Miller III for loaning us his "What's bugging your azaleas" poster. We have been invited back in the fall again to provide information and membership brochures to the public. ❑

Brookside Gardens Chapter
Bill Johnson, *President*

The June meeting of the Brookside Gardens Chapter was held June 7, 1993 at the Potomac Library. Bill Miller brought photos taken at the recent convention in Dallas for all to see and described a few of the highlights. He also had display posters with photos and a brief writeup on some past azalea hybridizers whom we know by name, but not by the face—Girard, Pennington, Chisholm and Merritt plus others. It was appreciated by all in attendance.

The family of Ryon Page had requested the chapter consider providing some help at the Parklawn Cemetery where Ryon is buried. Carol Allen volunteered to talk to the Administration and see what could be done. Some members indicated that they would donate plants, and it was noted the Northern Virginia Chapter was also interested in donations. Parklawn indicated they would make up a permanent plaque in memory for Ryon.

Barbara Bullock presented a slide show of the azalea collection at the U.S. National Arboretum in winter and spring, prior to the clearing and restoration work along with slides during the work. The toils of Barbara and her volunteers have certainly made a difference and more volunteers would be greatly appreciated.

The annual Plant Auction to be held in early fall at the Arboretum was discussed. It has become a great benefit to both Friends of the National Arboretum (FONA), the chapter and the recipients of plants. The next meeting will be in early fall, a plant/cutting exchange, location to be firmed up in the near future. ❑

Dallas Chapter
Steven Brainerd, *President*

In June, the Dallas Chapter enjoyed a presentation, "Rhododendrons in Texas", by Keith Johansson. Keith is a member of the Dallas Chapter of the Azalea Society of America and Treasurer of the Ozark Chapter of the Rho-

dodendron Society. In October we plan to enjoy a color slide show of England's Exbury Azaleas in their springtime glory.

At the time of this writing, Dallas is suffering an extended drought, the first July in recorded history without any rain. I have been experimenting in my home garden with a pure pine bark planting, which is exposed to wind on the east and west sides and full sun on the north. The pine bark is aged and finely milled, individual pieces able to pass through a 1/4" sieve. Sixty yards of pine bark were placed in beds excavated eighteen inches deep in black clay soils during the 1992 Labor Day weekend. The beds are well drained by physical sloping as well as four-inch perforated PVC piping which was placed in shallow trenches along the entire length of the beds. The azaleas have been fertilized with Ironite exclusively. Water is manually applied through a hose since no automatic sprinkler system is in place. I can report success at this point without any need for peat moss additives. The only azaleas which have been lost are plants of 'Sherwood Red', which were planted in an exposed bed on the south with exposure to sun and wind accelerated between houses. Watering was not necessary from November through May due to rainfall. Watering has been necessary on a two-day interval since water rationing was instituted in mid-July. Azaleas will take dry heat to 103 degrees planted in pure pine bark if given regular watering. The pure pine bark planting provides an initial cost savings for bed preparation. Water requirements are probably higher than if peat moss were present. ❑

Oconee Chapter
Jim Thornton, *President*

The Oconee Chapter met April 18 in Conyers, GA. Our program included Hugh Caldwell of Doctor's Inlet, Florida, discussing his relationship with Ben Morrison and George Harding. Mr. Caldwell also presented a slide show of Glenn Dales. Ralph Bullard, a notable iris expert, presented "Iris in the Azalea Landscape".

With 27 attending, we raised $150.00 from plant sales. Plants were donated by Hugh Caldwell, Allison Fuqua, Fred Sorg (a new member) and Jim Harris (who donated a new introduction 'Coronado Red'). A very special thanks to these people!

The chapter's next meeting was held at Dr. Ben Reid's Azalea Farm where members are asked to bring and share their rare and unusual azalea plants.

In addition, the Oconee Chapter will hold its second annual "Azaleas in Bloom" show on May 1 at the Conyers, GA, GoldKist store. The purpose, of course, is to promote public awareness and to recruit new members.

Coming up later in the year, native azaleas (presenter to be announced) with new member George Sanko presenting "Native Companion Plants".

Our final meeting this year will bring Mary Beasley to the front, along with our annual election of officers. Dates will be announced. ❑

In Memory

Nancy Reynolds Gartrell died on August 13, 1993 at 99 years of age. Robert D. Gartrell chose the name of his beloved wife when naming the azalea he considered his finest—'Nancy of Robinhill'. Nancy will be fondly remembered not only by family and close friends, but also by many azalea enthusiasts who met her while visiting The Gatrell's Gardens at Robin Hill in Ridgewood, NJ, or Little Robin Hill in Wyckoff, NJ. ❑

Azalea Calendar

1993

October 10	Executive Committee meeting
October 16	Glenn Dale workday from 9:00AM until 1:00PM. For more information contact Bill Miller (301) 365-0692.
October 19	Dallas Chapter meeting, Highland Park Town Hall at 7:00PM
October 30	Board of Directors meeting tentatively scheduled at the National Arboretum
November 1	Deadline for receiving material (articles, advertisements, and chapter news) for the December issue of **THE AZALEAN**
November 20	Glenn Dale workday from 9:00AM until 1:00PM. For more information contact Bill Miller (301) 365-0692.

1994

April 28, 29, 30	ASA Convention and Annual Meeting in Richmond, VA
June 18	A "Palette of Garden Arts" is presented for the public's enjoyment by The Aptucxet Garden Club of Bourne, from 10:00 AM until 5:00 PM. A tour of Cape Cod gardens is combined with "objects d'art" in homes enhanced by floral designs. Morning coffee, as well as, afternoon tea will be served, and unusual gifts are to be offered in our Boutique. Tickets are $10.00, $8.00 in advance with a self-addressed stamped envelope, which will benefit Civic Projects and may be purchased by writing P. O. Box 545, Pocasset, MA 02559-0545, or by telephoning (508) 563-2739.

Azalea News

ASA Bookstore

"A Brocade Pillow—Azaleas of Old Japan" by Ito Ihei with an introduction and commentary by John L. Creech

$15.00 Postpaid
Timber Press Publications
at substantial discount
Please inquire:
Ms. Jean Cox
5604 La Vista Drive
Alexandria, VA 22310
PHONE: (703) 971-8669 ❑

Azalea Society Of America Management Calendar

The Board of Directors has approved the following calendar to guide the management of the Society. In particular the deadlines for **THE AZALEAN** are called to the attention of authors of articles, advertisers, and other contributors to the journal. Chapter officers should also note the schedule for receiving dues and for issuing dues reminder notices.

January	Executive Committee Meeting
January 15	Disburse chapter share of dues to chapters; send dues renewal reminders; provide chapters with directory information for non-renewals
February 1	Deadline for March issue of **THE AZALEAN** (including financial statement, advertisements, and articles)
March	Executive Committee meeting to prepare for Board of Directors meeting
March 1	Finalize mailing list for March issue of **THE AZALEAN** (this means that if dues have not been paid by this date a copy will not be mailed)
March 10	March issue of **THE AZALEAN** mailed (including ballot for election of officers and directors, if appropriate)
May 1	Deadline for June issue of **THE AZALEAN**
May	Board of Directors Meeting and Annual Membership Meeting
May 30	Prepare and print Roster
June 15	June issue of **THE AZALEAN** mailed (with Roster inserted)
July/August	Executive Committee Meeting
August 1	Deadline for the September issue of **THE AZALEAN** (Convention Issue)
September/ October	Executive Committee Meeting
September 10	September issue of **THE AZALEAN**
October	Board of Directors Meeting; prepare budget for next year
November 1	Deadline for December issue of **THE AZALEAN** (including proposed slate for next year's election and annual index of articles)
November 10	Mail membership dues notices
December 10	December issue of **THE AZALEAN** mailed (including registration material for Annual Meeting and Convention, ballot for election of officers and directors if annual meeting is before May 1, and ballot for Best Article in **THE AZALEAN**)

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