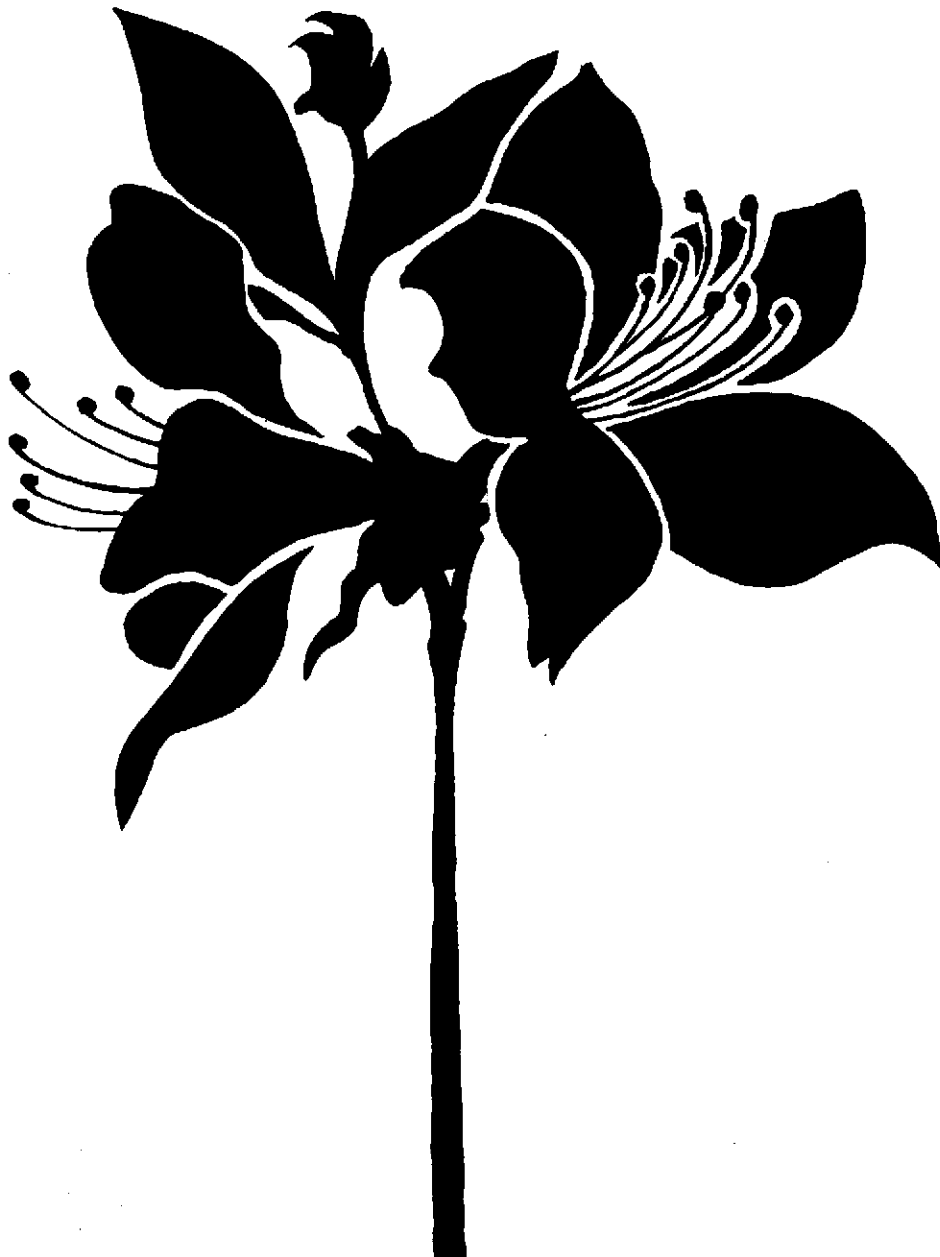

THE AZALEAN

Journal of the Azalea Society of America

Volume 6 Number 4

December 1984



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*).

OFFICERS FOR 1984-1985

PRESIDENT - John U. Rochester, Jr.
(Franklinton, Louisiana)

VICE-PRESIDENT - L. Malcolm Clark
(West Caldwell, New Jersey)

SECRETARY - Alice J. Holland
(Silver Spring, Maryland)

TREASURER - Glenn W. Taylor
(Springfield, Virginia)

IMMEDIATE PAST-PRESIDENT - James A. (Tony) Dove, Jr.
(Edgewater, Maryland)

BOARD OF GOVERNORS

AT-LARGE MEMBERS

Terms expiring in 1985

James A. (Tony) Dove, Jr.
Charles H. Evans, M.D., Ph.D.
Donald W. Hyatt
Ryon A. Page (chairman)
George S. Switzer, Ph.D.

Terms expiring in 1986

L. Malcolm Clark
August A. Dietz IV
Fred C. Galle
Alice J. Holland
Frank B. White, Jr.

EX-OFFICIO MEMBERS
(chapter presidents)

CHAPTERS

Brookside Gardens (chartered August 1979)
William C. Miller III, president
Richmond, Virginia (chartered August 1979)
Nancy Swell, president
Robert D. Gartrell (chartered May 1980)
Jerry Goodman, president
Ben Morrison (chartered May 1980)
George S. Switzer, Ph.D., president
Northern Virginia (chartered May 1980)
Adrienne A. Whyte, Ph.D., president

Louisiana (chartered June 1981)
John U. Rochester, Jr., president
Ralph W. Pennington (chartered June 1981)
Dewey Garrett, president
Tri-State (chartered October 1981)
Fred N. Sievers, president
Mobile (chartered March 1983)
John M. Giordano, Jr., M.D., president
Northwest (chartered October 1983)
Emma Bowhan, president
Flame Azalea (chartered May 1984)
James G. Egan, president

HONORARY MEMBERS

Robert D. Gartrell
William M. McCrillis (dec.)
Virginia McCrillis (dec.)
G. Albert Reid

I. Lee Amann
Hugh Caldwell
R. A. Comunale, M.D.
Teresa Dunnington
Ann and J. Raymond Goza

LIFE MEMBERS

Alice and Graham Holland
Janet and William C. Miller III
Helen Schroeder
M. Thais Spencer
Frank B. White Jr.

Regular membership is open to all interested parties for an annual contribution of \$15.00. Life membership is \$225.00. 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 6244, Silver Spring, Maryland 20906.

THE AZALEAN

The Journal of the Azalea Society
of America, Inc.

Dr. Charles H. Evans, Editor

Directors

Art Nancy E. Evans
Business Charles H. Evans, M.D., Ph.D.
Publication Janet B. Miller
Education & Scientific William C. Miller III
Society Activities Robert K. Barry

Advisory Editorial Board

Reid M. Denis
Arthur W. Frazer, Ph.D.
Fred C. Galle
George W. Harding
Sandra F. McDonald, Ph.D.
John W. Neal, Jr., Ph.D.
Ryon A. Page
John U. Rochester, Jr.
Nancy Swell
George S. Switzer, Ph.D.
Frank B. White, Jr.

THE AZALEAN is published during March, June, September, and December by the Azalea Society of America, Inc., P.O. Box 6244, Silver Spring, MD 20906. Additional copies of the current and back issues are \$2.50 each and can be obtained from the Secretary.

Opinions and views expressed in **THE AZALEAN** are those of the contributors or the Editor, not necessarily those of the Society, and are presented to foster a wider appreciation and knowledge of azaleas. Advertisements are presented as a service to our readers and do not imply endorsement by the Azalea Society of America. Advertising and other contributions to **THE AZALEAN** are used exclusively to help defray the costs of publishing **THE AZALEAN**.

Address all editorial and business correspondence to The Editor, **THE AZALEAN**, 9233 Farnsworth Drive, Potomac, MD 20854.

Volume 6 No. 4

December 1984

IN THIS ISSUE:

THE PRESIDENT'S COLUMN	56
GIFTS TO THE A.S.A.	56
BROOKSIDE GARDENS SATSUKI COLLECTION CULTIVAR NAMES	57
THE AZALEA CALENDAR	59
VARYING BARK/PEAT RATIOS IN CONTAINER MEDIA AFFECTS THE GROWTH OF THREE CULTIVARS Dr. Edward G. Corbett, Dr. Robert J. Schramm, and Norman Tessier	60
JUGLANS TOXICITY AND FALL FERTILIZATION Stanton A. Gill	62
ERIOCARPUM: A CASE OF ENVIRON- MENTALLY MODULATED HABIT William C. Miller III	63
"AZALEA CLASSIC" ALPHONSE PERICAT'S AZALEAS Henry W. Ridgway	64
ASA NEWS AND VIEWS	
IN MEMORIUM Henry R. Schroeder, M.D.	67
NEW AZALEA HYBRIDS THE FIRST STATE HYBRIDS	67
7th ANNUAL ASA CONVENTION ...	67
AMENDMENTS TO BY-LAWS	68
PUBLICATIONS OF INTEREST	
Book Review - "A Brocade Pillow"	69
Satsuki Book Index Offer	69
New 2nd Edition of Well's "Plant Propagation Practices"	69
MORE ON TISSUE CULTURE	70
LETTER TO THE EDITOR	70
INDEX FOR VOLUME 6 OF THE AZALEAN	70
THE AZALEA MART	74

THE PRESIDENT'S COLUMN

In August, I exhibited at the Southern Nursery Association Trade show at the World Congress Center in Atlanta, Georgia, and one of the visitors at my booth was Fred Galle. We talked at length on azaleas and the upcoming National Convention of A.S.A. in Mobile in March of '85. Fred then told me that his new azalea book would be published by *Timber Press* in Oregon and that it would be presented at the National Convention in Mobile—how about that! One more reason why everyone should mark March 22-24th on their calendar and head south. I talked to Russell Scott recently, and he tells me that plans are just about complete for the tours and programs. March is a beautiful time of the year to be in "Dixie". For those of you up north, you can observe spring in the South and then your own spring when you return home.

Another interesting visitor at my booth was James Harris, breeder of the famous 'Pink Cascade'. James told me he has another hanging basket variety that is a bi-color soon to be released.

The chief propagator at our nursery (my wife Evelyn) received a second group of cuttings of the Brookside Gardens Satsuki Collection, and they have been stuck and are looking good. Bob Barry and his group (Freda Barry, Charlie Evans, George Harding, Ryon Page, and Bob Stelloh) who made the cuttings are to be commended on the super job they did in taking the cuttings, packing, and shipping. We are making cuttings from last year's group and hope to have some of those ready for the membership next spring.

We have had a fairly wet summer in Louisiana after a late spring drought. All azaleas should be going into fall and winter in excellent condition. Hopefully this winter will not be a repeat of last year's.

John U. Rochester
President
Azalea Society of America

GIFTS TO THE AZALEA SOCIETY OF AMERICA

During the past several months, contributions from chapters meeting the challenge offered by the Northwest Chapter and from society members have provided a substantial boost to providing a continued, quality quarterly journal and towards balancing the A.S.A. budget for the year. Your Board of Governors expresses their deepest appreciation to those individuals and chapters who have sent in contributions.

For individual members contributing to the society we wish to point out that many employers have Matching Gift Programs and will match your tax-free gift to the Azalea Society of America by an equal amount and in some cases by a two-for-one amount. If your firm or company has a matching gift program, the Azalea Society of America thus receives double or triple the amount you give. All you have to do is obtain the simple form from your business office and fill it out according to their instructions. THIS IS A VERY IMPORTANT RESOURCE FOR THE AZALEA SOCIETY.

Does your company have a matching gift program? Many do. If your company or firm is not listed below, ask your personnel or business office if there is a matching gift program.

Some Employers with Matching Gift Programs

Allied Corporation	IBM
American Bell	International Minerals & Chemical
American Express	Johnson & Johnson (Ethicon)
AT&T	Kimberley-Clark
AT&T Long Lines	Kirkland & Ellis
AMF, Inc.	Lear Siegler
ARMCO, Inc.	McGraw-Hill
Atlantic Richfield	Minnesota Mining & Manufacturing
Automatic Data Processing	Mobil
BankAmerica	Monsanto
Bendix Corporation	Montgomery Ward & Company
Black and Decker	MTS System
Boeing	Mutual Benefit Life
Brunswick Corporation	NCR
Bunge Corporation	Newsweek
Burroughs Wellcome Company	Norton
Carter Hawley Hale Stores, Inc.	Pennzoil
Celanese Corporation	Pepsico
Chase Manhattan Bank, N.A.	Pfizer
Chubb Corporation	Phelps Dodge
CitiCorp	Philip Morris
Coca-Cola	Polaroid
Communications Satellite Corp.	Post Newsweek Stations
Connecticut General Insurance	PPG Industries
Consolidated Foods	Quaker Oats
Continental Group	R. J. Reynolds Industries
Corning Glass Works	Rexnord
CPC International, Inc.	Signal Companies, Inc.
Cray Research, Inc.	St. Paul Companies, Inc.
Dart and Craft	Standard Dil
Del Monte	Stanley Works
Deluxe Check Printers	Sun Compoany
Digital Equipment	Tektronix
Dow Chemical	Texas Eastern
Equitable Life Assurance Society of the United States	Textron
Esmark, Inc.	Time
Exxon	Times Journal
Federated Department Stores	Times Mirror Company
First and Merchants	TRW
Fluor Corporation	Union Pacific
Genrad	United Parcel Service
Gillette	United States Fidelity and Guaranty
B.F. Goodrich	United Technologies
Gulf & Western Industries	United Virginia Bankshares
Gulf Oil	U.S. Air
Harsco	Washington Post
Honeywell	Westinghouse Electric
	Wheelabrator Frye

BROOKSIDE GARDENS SATSUKI COLLECTION CULTIVAR NAMES

The Brookside Gardens Satsuki Collection is a group of evergreen azalea cultivars most of which were selected at the Kairyō Nursery in Japan and imported as cuttings during 1977 and 1978 (see **THE AZALEAN**, Vol. 6, page 25, June 1984). The evaluation, propagation, and distribution of the cultivars in the collection is being administered by the Satsuki Project of the Azalea Society of America.

Cuttings from more than 300 cultivars in the collection were taken during August 1983 and August 1984 and are being propagated for distribution. Some of the rooted cuttings will be available from the propagators beginning in the Spring of 1985. Ordering information will be presented in the March 1985 issue of **THE AZALEAN**.

Descriptions of the varieties in the Brookside Gardens Satsuki Collection will be included in Fred Galle's new

azalea book, which will be released at the A.S.A. National Meeting in Mobile, Alabama, March 22-24, 1985. Each cultivar in the collection is identified within the alphabetical listing of the Satsukis in Fred Galle's book by a "BG" number following the description of the variety. Descriptions of a few varieties in the Collection were not available at the time of publication. Those descriptions will be published in **THE AZALEAN** after several blooming cycles have occurred.

The following is a list of the Brookside Gardens Satsuki Collection cultivars and their "BG" numbers.

Robert K. Barry
Satsuki Project Chairman

Aigyoku BG 1110
Aikoku BG 1221
Ai no Nishiki 1122
Ai no Tsuki BG 0868
Aishifu BG 0871
Akanagi BG 1026
Akatsuki no Zao BG 0859
Akebono BG 1314
Akita Nishiki BG 0977
Amagasa BG 0930
Aoi BG 0994
Appare BG 1213
Asafuji BG 1274
Asahi no Hikari BG 0919
Asahi no Izumi BG 1294
Azumi Kagami BG 0506
Baiho BG 0945
Bandai BG 1011
Bangaku BG 1135
Banka BG 1298
Banshin BG 0920
Banzai BG 0364/0996
Benigasa BG 1148
Beni Kagami BG 0940
Beni Tsubame BG 0502/1176
Biho BG 0875
Buho no Tsuki BG 0947
Buncho BG 0854
Bunka BG 1102
Chidori BG 1157
Chikyu Nishiki BG 1200
Chinei BG 1021
Chinrei BG 1056
Chinzan BG 1025
Chitose Gawa BG 1188
Chiyo no Hikari BG 0510
Chiyo no Homare BG 0402/0874
Choei BG 0890
Cho no Hagaromo BG 1324
Daigokuden BG 1075
Daishuhai BG 0488
Eikan BG 1256
Eiko BG 0955
Eishi BG 1217

Fuji BG 1152
Fuji Hime BG 0931
Fuji Mori BG 0466
Fuji Nani BG 1004
Fuji Nishiki BG 1291
Fukuju BG 0900
Fuku no Hana BG 0877
Fukurokuju BG 0912
Fuku Suzume BG 0873
Futaba no Tsuki BG 1117
Gaho BG 1232
Gekkeikan BG 0368/1198
Gekko BG 0367
Getsu Keikan BG 0468
Getsu Rei BG 0404
Getsutoku BG 1214
Ginga BG 1101
Ginrei BG 1139
Ginsei BG 0954
Ginsekai BG 1015
Godaishu BG 1228
Goko BG 0891
Gosai no Hikari BG 0863
Gosho no Tsuki BG 1154
Gunbo Nishiki BG 0469
Gunki BG 1111
Gyokka no Kagayaki BG 1114
Gyoko BG 0486/1180
Gyokokan BG 0883
Gyoko no Kagayaki BG 1326
Gyokudo BG 1098
Gyokuho BG 0896
Gyokuryu BG 1145
Gyokushin BG 1045
Gyoten BG 0888
Hagoromo no Hikari BG 1352
Hakatajiro BG 1275
Hakko BG 1105
Hakuho BG 0967
Hakusen no Mai BG 1130
Hama Chidori BG 1009
Hanamoyo BG 1202
Hana no Kagami BG 1046
Hanazono BG 1086

Haresugata BG 1296
Haru Gasumi BG 0491
Harukaze BG 1005
Haru no Mai BG 1138
Haru no Sono BG 1220
Haru no Uta BG 1123
Hatsuhigumo BG 1245
Hatsu Kagami BG 1071
Hatsu no Hana BG 1187
Hatsushimada BG 0884
Heiwa BG 1272
Heiwa no Hikari BG 1199
Heiwa no Kagami BG 1249
Higasa BG 0917
Hikari no Tsukasa BG 1023
Himearukumo BG 1053
Hime Kikoshi BG 1225
Hime Nakahara BG 0889
Hime Nishiki BG 1230
Himeshishin Nishiki BG 1183
Hio Ogi BG 1253
Hitachi BG 1223
Hitomaru BG 0898
Hoju no Hikari BG 1186
Hoko BG 0876
Homare BG 1155
Homare no Hana BG 1129
Homare Matsunami BG 1353
Hosei BG 1348
Hoshi no Sato BG 12B2
Hoshizukiyo BG 1127
Hoshun BG 1346
Hototogisu BG 0501
Ikoma BG 0411
Ishiyama BG 1267
Issho no Haru BG 0484/1216
Iwa no Tsuki BG 0490
Iwai no Tsuki BG 1335
Izayoi BG 0476/1266
Izumi BG 0935
Juko BG 1033
Junbi BG 1104
Kagamijishi BG 1339
Kagayaki no Matsu BG 1280

Kagetsu BG 0978
Kaho BG 0850/1209
Kahoku no Tsuki BG 1030
Kaho no Hikari BG 1063
Kairaku BG 1124
Kakyo no Hikari BG 1167
Kami no Yama Kirin BG 1177
Kanki BG 1118
Kashin BG 1218
Kasho BG 1142
Kayo no Homare BG 0862
Kazan BG 1325
Kazan no Tsuki BG 0946
Kaze BG 1236
Keishuku BG 1064
Kenbishi BG 1001
Kifujin BG 1226
Kikaku BG 0973
Kiko BG 0895
Kikoshi BG 0924
Kimimaru BG 0992
Kimi no Hana BG 0487/1212
Kimi no Hikari BG 1224
Kinkazan BG 0958
Kinmei BG 1044
Kin Nishiki BG 0378
Kinpa BG 0916
Kinpai BG 0909
Kinpo Nishiki BG 1239
Kinsai BG 0360/1052
Kinsei BG 0991
Kintaro BG 0963
Kinu no Hikari BG 0950
Kinu no Tsuki BG 1197
Kippo no Hikari BG 1306
Kirinkan BG 1316
Kisarazu BG 1334
Kogane Nishiki BG 1295
Kogen no Hikari BG 0921
Kogetsu BG 1018/1191
Kohan no Tsuki BG 0847/1301
Kojo no Hikari BG 1344
Kojo no Homare BG 0902
Kojo no Tsuki BG 1096
Koka BG 0885
Koki BG 1022
Kokin BG 0971
Kokin Nishiki BG 0518
Kokko no Bi BG 1207
Komachi Warai BG 1133
Komadori BG 0922
Komei BG 0987
Kongo no Hikari BG 0886
Koraku BG 0846/0937
Koryu BG 1078
Koshi no Nami BG 0878
Koshi no Tsuki BG 0953
Kosui BG 1000
Koten BG 1174
Kotobuki BG 1141
Kotobuki Hime BG 1311
Kotobuki no Izumi BG 1300
Kotobuki no Sono BG 1120
Koyo BG 0872
Kozan no Homare BG 1219
Kozan no Tsuki BG 0946
Kumano BG 0979
Kunpu BG 1093
Kusudama BG 1351

Maigesho BG 1072
Mai Ogi BG 1051
Mansaku BG 1185
Matsunami BG 050
Matsu no Homare BG 1070
Matsu no Tsukasa BG 1208
Matsushima BG 1037
Meiho BG 0887/0908
Meiko BG 0959/1192
Meikyo BG 0492/1171
Meikyo no Hikari BG 1299
Meisei BG 1126
Meisho BG 1080
Meizan BG 1012
Meoto Nishiki BG 1162
Minato BG 1156
Mine no Hana BG 0858
Mine no Hikari BG 1166
Mine no Hoshi BG 0948
Miyako BG 0893
Miyako no Hikari BG 1241
Miyako no Tsuki BG 0867
Mizuho no Kagami BG 0861
Momo no Haru BG 0860
Mori no Miyako BG 1147
Murasaki no Hoshi BG 0975
Musashi no Homare BG 0911
Myoyo BG 1178
Nakano Nishiki BG 1329
Nakatsu no Hikari BG 1151
Nami BG 1205
Narihira BG 0477
Narihira BG 1354
Narumi Shibori BG 1050
Nichirin BG 0927
Niigata Kirin BG 1048
Niji BG 0974
Nikko BG 0511
Nirouki no Iwai BG 0981
Nishiki BG 1269
Nishiki Boshi BG 0951
Nishiki no Yama BG 1252
Oboro Tsuki BG 0961
Ogon no Tsuki BG 1017
Omoi no Maku BG 1181
Onsho BG 1034
Otome no Mai BG 0848
Otome Zakura BG 1317
Raiko BG 0986
Rakuzan BG 1131
Reiho BG 1340
Reiko BG 0988
Rinpu BG 0390
Sachi no Hana BG 1271
Sakuragata BG 1347
Sakura Kagami BG 1168
Sakura Yama BG 0870
Sankatsu BG 1250
Sanko BG 1265
Sanko Nishiki BG 1222
Sanko no Kagayaki BG 1297
Sanyo BG 0933
Sato no Hikari BG 1277
Sayotsuki BG 1330
Seidai BG 0401
Seigetsu BG 1060/1309
Seiho BG 1106
Seika BG 1002/1312
Seiko no Hikari BG 1203

Seirin BG 1196
Seito no Hana BG 0932
Seiun BG 1238
Seizan BG 1173
Sekai no Hikari BG 1029
Sharaku BG 1043
Shibori Asagao BG 1003
Shien no Tsuki BG 1020
Shiho BG 0385/1089
Shiko BG 1065
Shiko no Tsuki BG 0965/0969
Shikokan BG 0997
Shinfuki BG 0879
Shinju no Hikari BG 1338
Shinkigen BG 1140
Shinkyō BG 1024
Shinmatsu Kagami BG 1201
Shinnen BG 1240
Shinsei BG 1125
Shinsen BG 1028
Shintaiyo BG 0381
Shinyomo no Haru BG 1010
Shinyo no Ko BG 0840
Shira Fuji BG 1349
Shiraito no Tsuki BG 0410
Shirasumi BG 1235
Shishin Nishiki BG 1161
Shogetsu BG 1254
Shoji Kuruma BG 1259
Shokko Nishiki BG 1069
Showa no Homare BG 1270
Showa no Kagayaki BG 1278
Shozui BG 1039
Shugetsu BG 0852
Shuko no Tsuki BG 1055
Shukubai BG 1175
Shungetsu BG 1076
Sogon Nishiki BG 1047
Soho BG 0855/1227
Sono no Homare BG 0869
Suigetsu BG 0962
Suikan BG 1006
Suisen BG 1061
Suisho BG 0897
Suishoho BG 1195
Sumizome BG 1119
Suzumushi BG 1159
Tagoto no Tsuki BG 0941
Taiheikan BG 0995
Taiho BG 0899
Taisanhaku BG 1092
Taka no Hana BG 0480/1255
Taka no Tsukasa BG 1343
Takara BG 0881
Takarabune BG 1016
Takara no Hikari BG 0914
Takara no Yama BG 1284
Takasago BG 0366/0856/1054
Tamabotan BG 1113
Tama Hime BG 1244
Tamakagami BG 1247
Tama no Hikari BG 0966
Tamaori BG 0865
Tancho BG 1112
Tatsumi no Hikari BG 0853
Teikan BG 0913
Tennyō no Sugata BG 1243
Tenshi BG 1165
Tenshoko BG 1204

Tochi no Hikari BG 0976
 Tochi no Homare BG 0904
 Tokai BG 1194
 Tokiwa BG 0944
 Toko Nishiki BG 1143
 Tomei Nishiki BG 0929
 Towa no Kagami BG 1179
 Tsukassa BG 0500/0982
 Tsukihime BG 0923
 Tsuki no Tsukasa BG 0926
 Tsukuba no Akebono BG 1066
 Tsuyu no Tama BG 1210
 Uchu no Hikari BG 1206
 Ugigumo no Tsuki BG 0882
 Ume no Hikari BG 1013
 Ungetsu BG 0943

Ungetsu no Hana BG 0972
 Ungetsu no Hikari BG 0952
 Usugesho BG 0857
 Usuginu BG 0892
 Utage no Hana BG 1242
 Uyo no Tsuki BG 1260
 Wakakoma BG 1314
 Yae no Tsuki BG 0880
 Yakata no Tsuki BG 1215
 Yakushin BG 0942
 Yamaji no Tomoshiba BG 1137
 Yama no Akebono BG 0889
 Yama no Haru BG 1158
 Yama no Hikari BG 1283
 Yama no Takara BG 1099
 Yamato BG 1345

Yamato no Hikari BG 1160
 Yata no Kagami BG 1193
 Yatsubusa no Ushi BG 1073
 Yatasubusa Seirin BG 1088
 Yatsubusa Ukigami BG 1190
 Yayoi no Hikari BG 1153
 Yorokobi BG 1304
 Yoshimitsu BG 1257
 Yugiri BG 0918
 Yuho BG 0392/0851/0998
 Yukishiro BG 1042
 Yume BG 0956
 Yuwai no Tsuki BG 0409
 Zuigetsu BG 0906
 Zuio BG 1103

Editors Note:

The above list of Satsuki cultivar names is published as provided by the Satsuki Project of the Azalea Society of America. The reader should note that there may be variation in the spelling of cultivar names from one source to another. Flexibility is the key word for studying Satsuki azaleas. The only task more awesome than developing useful and definitive descriptions for the highly variable flower color patterns is developing consensus on the proper spelling of English translations or interpretations of the Japanese cultivar names. For example, some of the more common variations include: (1) the addition or deletion of the letter "h", as in 'Kaghetsu' and 'Kagetsu'; (2) the substitution of "j" for "sh", as in 'Hakatajiro' and 'Hakatashiro'; and (3) the substitution of "z" for "s", as in 'Kin-no-Zai' and 'Kin-no-Sai'. Further, some references freely utilize dashes to highlight the different parts of the cultivar name while others dispense with dashes entirely, leaving spaces between the parts or combining the parts into one word. Armed with an awareness of the potential variability of name forms, one can better appreciate the uniqueness of synonymy of cultivar names when presented with lists of names or nursery catalogs.

THE AZALEA CALENDAR

February

25

Brookside Gardens Chapter meeting.
 Speaker: Robert Drechsler, Curator of the
 National Bonsai Collection, U.S. National
 Arboretum.

March

22-24

7th National Convention, Azalea Society
 of America, Mobile, Alabama. Russell Scott,
 Chairman, (205-633-7069)

May

11-12

Brookside Gardens Chapter 6th Annual
 Azalea Flower Show. Denise Stelloh,
 chairman, (301-869-5323)

18

Brookside Gardens Chapter 7th Annual
 Azalea Sale. Richard Antony, chairman,
 (301-439-6085)

THE AZALEA CALENDAR lists upcoming Society and chapter activities. Items to be included should be forwarded to the Editor together with name, address, and telephone number of contact person(s) at least three months prior to the month of publication of **THE AZALEAN** in which the notice is to appear.

VARYING BARK/PEAT RATIOS IN CONTAINER MEDIA AFFECTS THE GROWTH OF THREE CULTIVARS

Dr. Edward G. Corbett, Dr. Robert J. Schramm, and Norman Tessier
Storrs, Connecticut

An ideal container medium and the relative merits of the components of such a medium have been the subject of much literature (1,2,3,4,5,6). Plant response to a medium varies due to many factors, including fertility, watering, temperature and medium composition.

This experiment was conducted to determine the effects of various ratios of two widely used components of container media, Canadian sphagnum peat moss and composted Canadian softwood bark, on the growth of three rhododendron cultivars over two growing seasons.

The Experiment

Rooted cuttings of three rhododendron cultivars ('Chionoides', 'PJM Hybrid', and 'Mother's Day') were put in containers in August 1981 and grown for two seasons under standard production practices in a commercial nursery in Bolton, CT.

Six media containing bark and peat were tested: 70 percent bark, 60 percent bark, 50 percent bark, 40 percent bark, 30 percent bark, and 20 percent bark.

Three levels of fertilizer were also tested using 10-2-8 slow-release fertilizer mix: none, 16 pounds per cubic yard and 24 pounds per cubic yard. All plants were fertilized equally by top-dressing during the experiment.

The experimental design was a split plot with fertilizer rates (replicated three times) as main plots and the bark/peat ratios as subplots. The plants were overwintered in the field under microfoam covered by opaque polyethylene.

Height and spread measurements were taken during October 1982 at the end of the second growing season. The measurements were collected and averaged to get a mean size for each cultivar for each treatment. Root growth was monitored visually throughout the experiment.

Results

Roots of all test plants had penetrated well into the ball by the end of the first growing season. At the end of the second season, the root balls were dense and strongly resisted separation (Fig. 1). The only obvious difference among the balls was that those with more bark separated more readily.

The amount and quality of root growth was excellent in all media. Root growth was substantial in all media at all levels of fertility tested. The surface roots of plants grown in 80 percent peat with 24 pounds per cubic yard of fertilizer were strong, clear white and noticeably thicker than those on similar plants in other media.



Fig. 1. After one growing season, Rhododendron 'Chionoides' of the upper photo illustrate the difference in growth produced by differing amounts of peat in bark and peat container media. The plant on the left has the lowest peat content. The one on the right has the highest peat content. The same plants one year later are in the lower photo. No fertilizer was used in this plot.

Growth data (Fig. 2) reveals the comparative mean size for the test plants. Mixtures containing 40 percent peat had consistently good growth on all three cultivars compared with other mixtures.

With R. 'Chionoides', media with 50 percent or more peat produced equally good results. With R. 'PJM Hybrid' the results were less conclusive. All media except that with 30 percent peat were statistically similar, and that medium did not produce a growth significantly lower than did the 40 percent peat.

Fig. 2. This table depicts the means size of the plants in each peat and bark medium. The values are the average means of three replications of six plants each.

Mean size of rhododendron cultivars

Bark/Peat Ratio (percentages)	'Chionoides' (inches)	'PJM Hybrid' (inches)	'Mother's Day' (inches)
20/80	86a	108a	38cd
30/70	86a	111a	40b
40/60	85a	109a	42a
50/50	79a	111a	40bc
60/40	76b	101ab	33d
70/30	62c	92b	27e

All measurements followed by the same letter are not significantly different.

The definitive results were found with R. 'Mother's Day'. The medium containing 60 percent peat was superior to all others, media with 50 percent and 70 percent peat were essentially equal in effect and better than those with 40 percent or less.

The mix of 70 percent bark and 30 percent peat resulted in the least growth of all three cultivars. The 40 percent peat medium produced less growth of R. 'Chionoides' and R. 'Mother's Day' than did media with more peat. But it produced statistically equivalent growth in 'PJM Hybrid' to the higher peat media.

The medium containing 80 percent peat produced less growth than the media containing 60 or 70 percent peat with R. 'Mother's Day'. Thus under conditions of this experiment, these cultivars perform best with 50 percent or more peat in the medium.

It is clear from the results of this experiment that mixtures of Canadian sphagnum peat moss and composted Canadian softwood bark containing 60 percent peat produce consistently good results with R. 'Chionoides', R. 'PJM Hybrid' and R. 'Mother's Day' in comparison with other ratios of peat to bark.

Effects of Fertilizer

With only three exceptions and regardless of fertilizer treatment, the two media lowest in peat produced the least growth (Fig. 3, 4, 5).

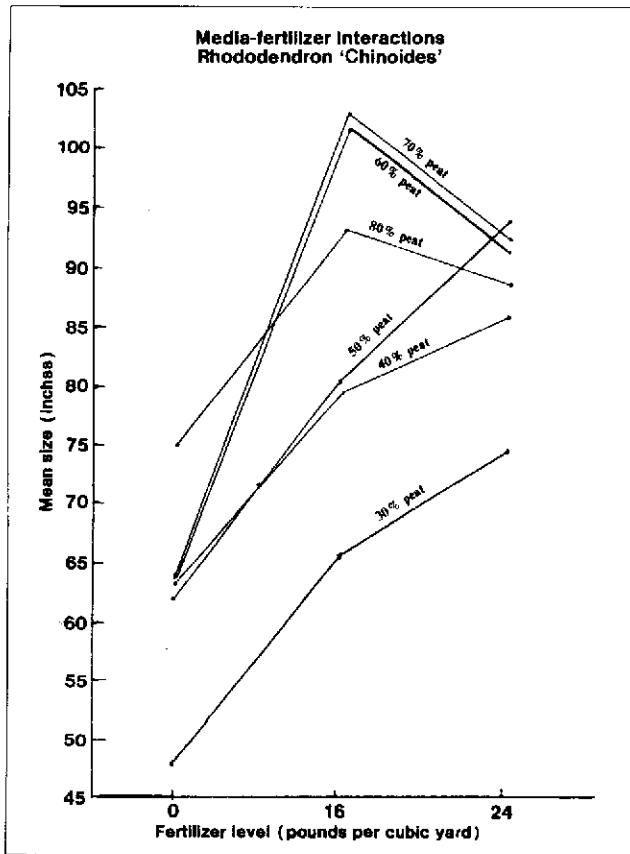


Fig. 3. This graph indicates the effect of the varying rates of fertilization on the mean size of Rhododendron 'Chionoides' grown in peat and bark media.

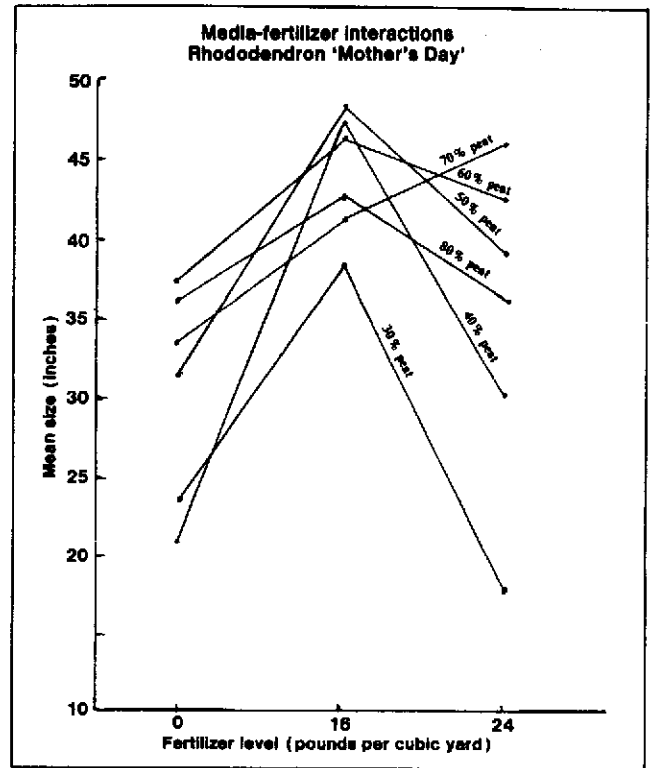


Fig. 4. This graph shows the effect of varying rates of fertilization on the mean size of Rhododendron 'Mother's Day' grown in peat and bark media.

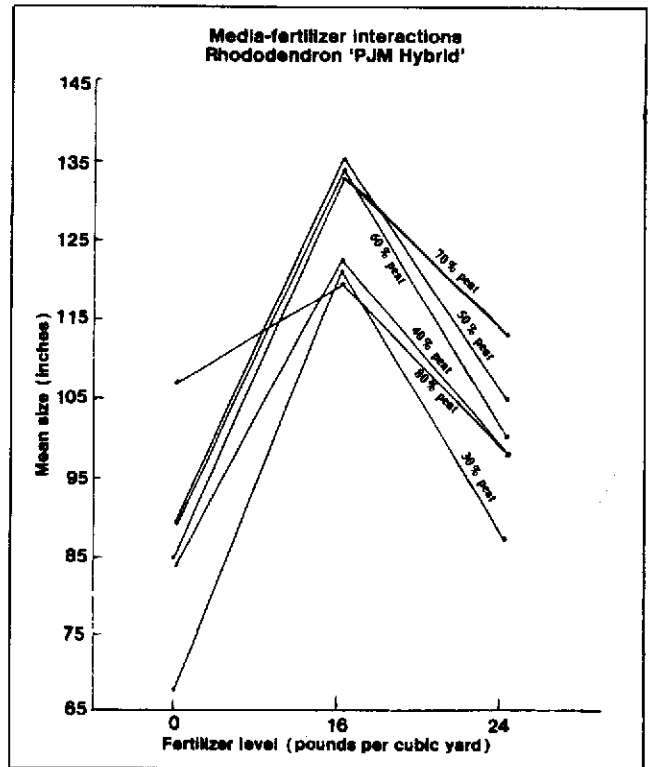


Fig. 5. This graph illustrates the effect of varying rates of fertilization on the mean size of Rhododendron 'PJM Hybrid' grown in peat and bark media.

Literature Cited

1. Baker, K.F., ed. 1957. "The U.C. System for Producing Healthy Container Grown Plants." *Calif. Agr. Exp. Sta. Manual* 23.
2. Davidson, H. and R. Mecklenburg. **Nursery Management, Administration and Culture.** Prentice-Hall, 1981.
3. Dickey, R.D., E.W. McElwee, C.A. Conover and J.N. Joiner. 1978. "Container Growing of Woody Ornamental Nursery Plants in Florida." *Fla. Agr. Exp. Sta. Bulletin* 793.
4. Hoitink, H.A.J. and H.A. Poole. 1976. "Composted Bark Mediums for Control of Soil-borne Plant Pathogens." *Am. Nurseryman* 144 (5):15.
5. McGuire, J.J. 1972. "Growing Ornamental Plants in Containers." *R.I. Coop. Ext. Serv. Bulletin* 197.
6. Smith, E.M. 1978. "Juniper Growth in Hardware and Pine Bark Mixtures." *Am. Nurseryman.* 148(1):27.

Dr. Edward G. Corbett is an extension specialist, University of Connecticut, Storrs. Dr. Robert J. Schramm was an extension specialist at U of C, Storrs. Norman Tessier is a nurseryman in Bolton, CT. This article was originally published in *Amer. Nurseryman*, 158:54-57 (1983).

It should also be noted that some high-peat media resulted in better growth with no fertilizer than did some low-peat media with fertilizer. Generally, the use of 16 pounds of fertilizer per cubic yard resulted in better overall growth than the use of more fertilizer in the container media.

With R. 'Chionoides', the media which contained a lower percentage of peat produced more growth at the higher rate, but the growth was less than that produced by media which contained a higher peat content at lower fertilizer rates.

With R. 'Mother's Day', the 70 percent peat medium produced its best growth with 24 pounds of fertilizer. The cultivar's growth in all other media declined as the rate of fertilizer increased.

There is a remarkable consistency of the fertilizer's effect, regardless of test plant or fertility level. Incorporation of 16 pounds of slow-release fertilizer per cubic yard provided the best level of fertility. The use of 24 pounds per cubic yard of slow-release fertilizer proved to be excessive.

JUGLANS TOXICITY AND FALL FERTILIZATION

Stanton A. Gill
College Park, Maryland

Both black walnut and butternut trees (genus *Juglans*) release a chemical from their roots (juglone) during the growing season that is toxic to many species of plants. It is felt that the production of this "natural herbicide" has evolved in the species to decrease competition from surrounding trees. This phenomenon of plant interaction is known as allelopathy. The toxic effect of juglone on other plants has been called juglans toxicity or walnut wilt. Trees and shrubs growing near a black walnut or butternut may suddenly wilt or turn chlorotic and often die during the growing season. Vascular discoloration similar to that produced in wilt diseases may also occur in the mainstem. Apple, mountain laurel, pear, pine, rhododendron, and sour cherry are some woody plants known to be susceptible to juglone toxicity.

Juglans toxicity can be prevented by not planting sensitive plant species under the dripline of black walnut and butternut trees. Sensitive species planted beyond the root zone will not be affected. Another control is removal of the black walnut or butternut tree. Juglone does not persist in the soil over winter; therefore, sensitive species may be planted in the same location a year after a butternut or black walnut is removed.

One method of improving the appearance of narrow and broadleaf evergreens next spring is to fertilize them this fall. Many Maryland nurserymen have discovered that applying a 16-8-8, 50% organic fertilizer at a rate of

15 to 20 pounds per 1000 square feet after the first fall frost not only makes azaleas and hollies retain their foliage better during the winter and early spring but also improves growth in the spring. By applying the fertilizer after the first frost, the soil is warm enough to allow nitrogen uptake by the roots, but it is late enough in the season to prevent fall growth. This cultural practice has been successfully adopted by several large wholesale nurseries for many years.

The nitrogen in the fertilizer appears to be the nutrient responsible for most of the response. Examination of azaleas not treated in this manner generally shows that the bottom leaves turn yellow and by late winter and early spring, all that remains are small tufts of leaves at the ends of the branches. These symptoms indicate that nitrogen has been translocated from the lower leaves to the upper leaves, and the plants are under nitrogen stress. Plants that are fertilized with a nitrogen fertilizer in the fall after the first frost will maintain a good green color throughout the winter, exhibit less winter injury, and appear fuller in the spring. There is also a good indication that plants fertilized in the late fall produce more top growth the next spring.

Stanton A. Gill is the Extension Agent in Urban Agriculture, USDA, at the University of Maryland. These notes are adapted from his reports in the Cooperative Extension Service INSECT & DISEASE NOTES of September 10, 1984.

ERIOCARPUM: A CASE OF ENVIRONMENTALLY-MODULATED HABIT

William C. Miller III
Bethesda, Maryland

In early 1982, several specimens of *Rhododendron eriocarpum* (1), part of a National Arboretum distribution, surfaced in our area, and word began to circulate from reliable observers that those *eriocarpum* were exhibiting a rather uncharacteristic, *kaempferi*-like, upright growth habit. According to the account in the Lee book (2), *eriocarpum* is supposed to be low-growing like the Gumpos, with which there is reported to be some relation. Quite to the contrary, these specimens, grown from seed collected in the wilds of Yakushima, were exhibiting a curious but unmistakably "tall" plant habit which represented, at best, a stark departure from expectation. This observation on *eriocarpum*, it should be noted, was first reported by Barry Yinger, Horticulturist and Curator of the Asian Collection at the National Arboretum, in an article entitled the "The Origin of Satsukis: The Yakushima Connection", which appeared in **THE AZALEAN** in 1981.

There are a number of possibilities that might explain the situation. Perhaps the plants were mislabeled. Perhaps this "tallness" was a manifestation of segregating characteristics arising from a hybrid condition. Depending on the nature of the heritability of plant habit, one might expect to have tall, medium, and low growing habits represented in a population of progeny if it was merely a matter of hybridity and a simple Mendelian system. But, to my knowledge, all of the plants were tall. And, while "accidents" do happen, the consensus was that the plants were not mislabeled but were truly *eriocarpum*. Finally, and a possibility that would not ordinarily occur to me, perhaps Lee was mistaken.

Whatever the explanation, and to be on the safe side, a specimen in bloom was carried back to the Arboretum for examination and confirmation of its identity. It was examined by Barry Yinger and pronounced true to its tag. It was in fact *eriocarpum*.

In a personal communication (3), Yinger pointed out that "Lee's observations of *R. eriocarpum* were based solely on plants grown from cultivated seed (from K. Wada in Japan), and at that time there was no account available in the U.S. of its habit in the wild in Japan." It seems that *eriocarpum*, in the wild, does exhibit a low growth habit due to the harsh elements associated with its rugged natural environment, Nagasaki Prefecture in southern Kyushu south through the Ryukyu Islands to Taiwan. But, again quoting Yinger, "There is nothing about their appearance in the wild to suggest that plants of this species are inevitably genetically dwarf". In a less severe environment like a back yard in the Washington Metropolitan area or the hill at the National Arboretum, and in private gardens of farmers in Yakushima, *eriocarpum* has demonstrated an unquestionably upright growth habit.

George Harding (4) has observed that some Satsuki azaleas, as juvenile plants, send up long, straight shoots from an otherwise compact conformation. These shoots form the framework or potential for a much larger plant. If these "long shoots" are removed for a couple of years, the plant seemingly resigns itself to compactness and is thereafter disinclined to throw "long shoots"; that is, it stops trying. Yinger believes that this is an important adaptation mechanism for plants of *indicum* and *eriocarpum* in the wild. If a young plant produces these "long shoots" and they are not cut down by environmental forces, then it is in a more favorable position to exploit and succeed in its specific microhabitat. On the other hand, it is a terrible waste of energy to produce tissue which is routinely destroyed at the additional expense of considerable reproductive capability, by any standard a selective disadvantage in the struggle for survival. Now, if a plant which loses its long shoots can stop making them after several years of fruitless experimentation, then it can use its energy instead in making more lateral growth, thus optimizing flower and seed production on a plant with efficient size and conformation for its particular situation. Yinger believes that this characteristic has been transmitted to many of the Satsuki hybrids and from there to some of the more modern hybrids like the Back Acres and the Glenn Dales.

That external factors like environment can affect or modify gene expression is not a new revelation. In a 1961 letter to Norvell Gillespie (5), Ben Morrison commented on a general variability in Glenn Dale hybrid habits. He wrote the following "... as they go north, the heights decrease in many cases and the spread increases, so that a plant that has a normal growth habit here [Pass Christian, Mississippi] may look like a cushion there. Mr. Oliver of Scarsdale, N.Y., thinks CYGNET is a low mound; not here, just a slow upright bush." This element or characteristic of variability is worth emphasizing because it can be the root of much confusion when, as in this situation, new plant acquisitions perform contrary to expectation or, in the worst possible scenario, fail to perform at all. For example, a plant purchased for its reported low growth habit might exhibit that desired characteristic given full sun. The same plant placed in a shady location, however, might develop a more leggy and therefore undesirable habit as a consequence of reduced exposure. Which is the proper description—compact or leggy? As you can see, the task of accurately describing azaleas is complicated by this variability. Period of bloom, flower color and size, and cold-hardiness and heat-tolerance are additional examples of characteristics which demonstrate the relationship between a plant's suitability, performance, and differing environments.

The significance of this particular observation in *eriocarpum* is that it provides additional insight into the complementary relationship between genetic potential and environmental influence; that is, an adaptation mechanism in which the phenotype (what we observe as the final product after the action, or contribution, of all the controlling variables), in this case, plant habit, is variable in response to environmental conditions.

References and Notes

1. Synonyms for *R. eriocarpum* Nakai are: *R. tamurae* (Makino) Masamune; *R. indicum* var. *tamurae* Makino; *R. simsii* var. *tamurae* (Makino) Kanehira and Hatsushima; and *R. simsii* var. *eriocarpum* Wilson.

2. Lee, Frederic P. *The Azalea Book*. 2nd Edition, D. Van Nostrand Co., Inc., Princeton, N.J. (1965). Reprinted by Theophrastus Pub., Little Compton, Rhode Island.
3. Yinger, Barry. Personal Communication. January 24, 1984.
4. George Harding, a founding member of the Azalea Society and former Chief of Horticulture and Maintenance for the National Capital Parks, National Park Service, has been propagating azaleas since 1924 and operating a nursery since 1929.
5. Livingston, Philip A., and Franklin H. West, editors. *Hybrids and Hybridizer, Rhododendrons and Azaleas for Eastern North America*. Newtown Square, PA: Harwood Books, (1978) p. 119.

William C. Miller is President of the Brookside Gardens Chapter and a previous contributor to **THE AZALEAN**.

“Azalea Classic” ALPHONSE PERICAT’S AZALEAS

Henry W. Ridgway
Hampton, Virginia

The year in which the compact, evergreen Kurume azaleas were introduced to U.S. is still a controversial question, but their enthusiastic reception and widespread planting from about 1920 on is a matter of common knowledge. One natural result was that a few men started crossing these excellent forcing varieties with other types of azaleas. Among these men was Alphonse Pericat, who made a great number of crosses, but who has received too little recognition. He was a well-known florist in Collingdale, Pennsylvania, a suburb southwest of Philadelphia. In 1931, he exhibited a collection of his hybrids at the Philadelphia Flower Show. These received a great deal of favorable comment, but until recently little more was heard of his work by the horticultural world. Mr. Pericat continued his breeding and selection until his death only a few years ago, but the writer has been unable to obtain many of the details which the horticultural historian would desire. It is therefore particularly hoped that this brief account will come to the attention of those who can fill in the blanks.

Parents Used

No records have been found which would indicate the parents used by Mr. Pericat in his crosses, so we cannot be certain as to their identity. However, the fact that the Pericat hybrids are intermediate between the tender so-called “Indian” or “Belgian” azaleas, which are mostly *R. Simsii* hybrids, and the Kurume azaleas, in hardiness, size of flower and leaf, and habit of growth, would indicate that these were the parents most used. Varieties exhibiting some of the quality of ‘Salmon Beauty’, ‘Pink Pearl’, ‘Flame’, ‘Triumph’, ‘Coral Bells’, ‘Hexe’, ‘Lorraine’ and ‘Snow’ may be found among the hybrids. The

fact that Mr. Pericat was primarily a greenhouse grower, who probably did very little with hardier varieties, would also suggest the “Indian” and Kurume groups as the most natural choices as parents. A detailed study of azalea heredity will be required before the parent varieties can be absolutely identified.

Distribution

Mr. Pericat named and introduced himself only one variety—‘Madame Pericat’. However, he sold his mixed and unnamed hybrids rather widely to nurserymen and florists as a result of the 1931 Flower Show, particularly to the Le-Mac Nurseries, Robert Craig and Company, Perkins-de Wilde Nurseries, and Leach’s Nurseries. These nurseries grew Pericat’s selections for a number of years, tested them in the field as well as in the greenhouse and each selected the most promising for his own purposes. As a result of this further work, at least a score of additional varieties have been named, beginning in 1935 when the Le-Mac Nurseries named its group of eight. Furthermore, the nurseries named are continuing to work with other selections made by Mr. Pericat and we may expect the naming of at least a few more of these. However, it is possible that here are duplications in the names given some of the varieties, as there has been no coordination and little cooperation between the several concerns involved. It is also quite possible that additional varieties have been introduced without credit having been given to Mr. Pericat, or without coming to the attention of the writer. Some concerns, moreover, are still offering mixed plants simply as Pericat Azaleas, and a few of the varieties described herein are not advertised as Pericat hybrids.

Characterization

As a group, the Pericat Hybrids are somewhat tender but moderately strong growers, with a few exceptions reaching a height of at least four to five feet. The leaves are evergreen and are medium to large. The time of bloom, at least in the open, is mostly a few days to a week later than such varieties as 'Hinodegiri', although some growers maintain that they can be forced earlier than the Kurume varieties. The flowers cover a broad range of color, including white, pink, salmon, orange, orchid and lavender shades and include more attractive colors than are found in the Kurume azaleas. The blooms are generally either considerably larger than those of the Kurume group or very much more double; in a few varieties as 'Rival', they are both larger and more double. The amount of doubling is, however, quite variable between individual flowers of most of the varieties. It is of interest to note that at least some of the very double varieties such as 'Glory' and 'Richesse' are very compact and low growing. The Pericat hybrids might in fact be divided into two groups on this basis, as it seems to be a clear-cut characteristic.

In the Norfolk, Virginia region, the Pericat Hybrid plants are perfectly hardy, but in exposed locations the flower buds are sometimes killed by winter temperatures. Farther north these varieties are usually brought into the greenhouse in the fall and treated like "Indian" azaleas.

The variety 'Hampton Rose' is distinctly different from the rest of the group in almost every way except color, as will be seen by referring to the description following. This would suggest that it may be pure Kurume or at least that it does not contain any "Indian" blood. This may also be the case with 'Gem'. Although these two varieties were bred and distributed by Alphonse Pericat, it might be better not to include them as Pericat Hybrids because they did not possess the recognized characteristics of that group. However, for purposes of record they are described and included in this paper.

Pericat Varieties Described

Where the dimensions of the flower are given, the width of the flower is given first and then the length, not including the flower stem. Hose-in-hose, of course, means two complete sets of five petals each, the outer usually being modified sepals. By triple is meant hose-in-hose plus a third set of five petals, the inner usually being modified stamens. Petaloid stamens are stamens which have been modified to become small or large petals; often the anther remains and is attached to the petal. Petaloid sepals are sepals which have been modified to become small or large petals.

'China Seas': Rose pink flower. Single with petaloid stamens and sepals, all petals distinctly fringed, particularly the modified sepals, $2 \times 1\frac{1}{4}$ ". Can be forced for Christmas. Introduced by Leach 1937.

'Dawn': Light pink, slightly violet on opening, nearly white in center. Flowers hose-in-hose, $2\frac{1}{2} \times 1\frac{3}{4}$ ". Early forcer. Very similar to the later 'Morning Glow'. Introduced by Perkins-de Wilde 1939.

'Fortune': Cerise red. Flowers hose-in-hose plus petaloid stamens, $2 \times 2\frac{1}{2}$ ". Early forcer. Introduced by Perkins-de Wilde 1939.

'Gem': China pink. Flowers hose-in-hose, $1\frac{1}{4} \times 1$ ". Compact grower and early forcer. Similar to 'Salmon Beauty'. Introduced by Perkins-de Wilde 1939.

'Glory': Very rich reddish salmon. Flowers triple, $1\frac{3}{4} \times 1\frac{1}{4}$ ". Stamens mostly lacking. Plant low growing and compact. Introduced by Le-Mac 1941.

'Hampton Beauty': Bright salmon pink with darker spots. Color mottled, giving effect of apple blossoms. Flowers hose-in-hose, but outer petals are small and fringed, $2 \times 1\frac{1}{2}$ ". Vigorous grower and good forcer. Introduced by Le-Mac 1941.

'Hampton Rose': Carmine pink with paler throat. Flowers hose-in-hose, $1\frac{1}{4} \times \frac{3}{4}$ ". Leaves small, plant low growing and compact. Earliest azalea in Kurume and Pericat groups to bloom in the open. Hardy as 'Hinodegiri'. Introduced by Le-Mac in 1936.

'Harmony': Clear rose pink with few faint darker spots. Flower hose-in-hose with occasional stamens slightly petaloid, $2\frac{1}{2} \times 1\frac{1}{4}$ ". Introduced by Le-Mac in 1941.

'Hiawatha': Lavender pink. Flowers hose-in-hose, $2\frac{3}{4} \times 1\frac{1}{4}$ ", and outer petals somewhat fringed. Flowers hold well. Plant said to be hardy at Philadelphia. Sold to Wm. K. Harris, but introduced by Robert Craig Co. in 1942.

'Flanders Field': Deep poppy red in color. Flowers single, large. Plant strong grower. Introduced by Leach 1938.

'Madame Pericat': Light pink with shade of lavender, and greenish throat. Hose-in-hose to triple flowers, $2\frac{1}{2} \times 1\frac{3}{4}$ ". Probably identical with 'Morning Glow'. Late forcer. Introduced by Alphonse Pericat.

'Melody': Salmon with darker spots. Flowers hose-in-hose $2 \times 1\frac{1}{4}$ ". Introduced by Le-Mac 1941.

'Morning Glow': Light pink, white center. Practically identical with 'Dawn', but later forcer, and possibly smaller flowered and darker in color. Probably identical with 'Madame Pericat'. Introduced by Perkins-de Wilde 1939.

'Orchid' (No. 20): Lavender pink with darker spots. Flowers hose-in-hose. $2 \times 1\frac{1}{2}$ ". Said to be rather fragrant. Medium forcer. Introduced by Perkins-de Wilde 1939.

'Pride': Light red with darker spots. Flowers hose-in-hose $2 \times 1\frac{1}{4}$ ". Late forcer. Introduced by Perkins-de Wilde 1939.

'Rhythm': Rich, deep salmon suffused with orange and with prominent darker spots. Usually single with a few small petaloid stamens, some times hose-in-hose, but calyx always normal. $2\frac{1}{4} \times 1\frac{1}{2}$ ". Introduced by Le-Mac 1941.

'Richesse': Salmon with somewhat darker spots. Flowers triple and stamens mostly missing, 1¾ x 1¼". Introduced by Le-Mac 1941.

'Rival': Light red. Flowers usually triple, sometimes with additional petaloid stamens, 2¼ x 1¼". Good forcer. Introduced by Perkins-de Wilde 1939.

'Splendor': Pink. Flowers hose-in-hose plus occasional petaloid stamens, 2½ x 1½". Strong grower and late forcer. Introduced by Perkins-de Wilde 1939.

'Sunset': Peach. Flowers triple plus petaloid stamens. Good early forcer. Rather upright in growth. Introduced by Perkins-de Wilde 1939.

'Sweetheart': Carmine pink. Semi-double. Flowers 1¾" across. Early forcer. Buds resemble Sweetheart rose. Introduced by Perkins-de Wilde 1939.

'Sweetheart Supreme': Salmon pink. Flowers hose-in-hose plus some petaloid stamens, 1¾ x 1", some outer petals fringed. Buds resemble Sweetheart rose. Introduced by Robert Craig Co. 1940.

'Symphony': Rose pink with tinge of salmon; holds its color unusually well. Flowers hose-in-hose, 2½ x 1½". Introduced by Le-Mac 141.

'Twenty Grand': Bright rose pink. Flowers extra large, semi-double. Strong grower. Introduced by Leach 1937.

The above descriptions have been submitted to the respective introducers, but as the experience with these varieties has been limited, the descriptions must be kept open for revision. Most of the varieties have been studied while in bloom, but in a few cases no plants were available and the descriptions were obtained from other growers.

The Place of the Pericat Hybrids

The particular adaptation of any new group of varieties must be determined by trial over a considerable period of time. At present it would seem that the Pericat

Hybrid azaleas may be particularly valuable contributions to our list of ericaceous plants in three ways:

1. For landscape use in the middle and lower South. Relatively few Pericats have yet been planted outdoors, but our results at Hampton indicate that such varieties as 'Hampton Beauty' and 'Hiawatha' will prove very outstanding in the garden, at least in the Norfolk region, and certainly farther south. The plants have reached a height of four feet and promise to grow to perhaps ten feet under ideal conditions. They are more compact and evergreen than either the Kaempferi or Mucronatum (Ledifolia) types, and come in better colors and with much more double flowers.

2. For forcing in the greenhouse for Easter and for winter bloom. Several of the Pericats are distinct improvements over the present standard Kurume varieties in color, in size, and in doubleness of flower. Their wide and rapidly increasing use by florists is certain.

3. In breeding new varieties which will be even greater improvements over present-day standards. The variability as to doubling indicates an unstable genetic constitution which may produce particularly interesting results by selection as well as by hybridization.

Alphonse Pericat has passed on, but his magnificent azaleas will preserve his name for generations. And, even after his name has been forgotten, some of his hybrids or their descendants will undoubtedly live on.

This "Azalea Classic" with four photographs was originally published in **The National Hort. Mag.**, 21: 157-162 (1942).

"Azalea Classics" are articles published in the past which **THE AZALEAN** staff deems worthy of being brought to the attention of today's azalea enthusiasts. Whenever possible "Azalea Classic" will relate to a feature article in **THE AZALEAN** in order to increase the perspective of the issue. We think this is a valuable way to link the past, present, and future in azalea horticulture.

ASA NEWS AND VIEWS

IN MEMORIUM

HENRY R. SHROEDER, M.D.

We were deeply saddened to learn of the accidental death, on August 30, 1984, of Dr. Henry R. Schroeder, a physician of Evansville, Indiana and a life member of the Azalea Society of America. A nationally known grower of azaleas and rhododendrons, Dr. Schroeder had specialized for twenty some years in developing hybrids to withstand Midwestern winters and summers and was looking forward to beginning their introduction. His wife Helen informs us that their sons "Steve and David are going to carry on the nursery and will introduce some of his crosses next spring." A founding member and first President of the Tri-State Chapter and member of the Advisory Editorial Board of **THE AZALEAN**, Dr. Schroeder was highly active in the A.S.A., in addition to being closely associated with the American Rhododendron Society and the Holly Society of America. The azalea world will miss him.

Ryon A. Page

same as 'Nassau'. The most noticeable difference in these two plants is that with age 'Nanticoke' tends to cascade much like the Satsuki azalea 'Heiwa'. Very late, usually blooms with or near same time as seed parent.

communicated by Gordon Severe April 30, 1984
publication approved by Nels Nelson

THE AZALEAN publishes descriptions of new azalea hybrids providing that the descriptions clearly document the unique characteristics of the hybrid (see above and **THE AZALEAN** 5:19-22 (1983)). Descriptions must also include any registration information and any previous date of introduction. In the absence of the latter, the published description in **THE AZALEAN** may be used as notice of introduction.

It is the policy of **THE AZALEAN** to highlight with single quotation marks the name of bonfide azalea cultivars in text, whether or not they are registered. This is in accordance with the International Code of Nomenclature of Cultivated Plants—1981.

NEW AZALEA HYBRIDS

THE FIRST STATE HYBRIDS

Nels Nelson of Sussex County, Millsboro, Delaware has introduced a group of hybrid azaleas known as "The First State Hybrids".

Mr. Nelson first started to hybridize just for the fun and thrill of seeing what he might come up with by using crosses of the azaleas in his yard. Over the years, the interest grew, and now his goal is cascading azaleas, ground cover azaleas, and deciduous hybrids. One deciduous plant has been named but is still under study along with several others. Two evergreen azaleas have been named and introduced but not registered: 'Nassau' and 'Nanticoke', both double whites.

'Nassau': 'Cora Brandt' x 'White Gumpo'. Double white flower with small irregular flakes of light purple, specks of pink, some shading of pink and light purple. Flowers 2½" in diameter, a very near pompom bloom. Centers of flowers have a faint green tone. Plants ten years old 16" high x 5' across. Hardy to -5°F. Leaves dark glossy green, oblanceolate, will be a bit lighter green in full sun. Very late, blooms generally at same time as seed parent.

'Nanticoke': 'Cora Brandt' x 'White Gumpo'. A sister seedling to 'Nassau', double white with same flakes, specks, and shadings. Flower smaller about 2-2¼" in diameter and not quite as pompom as 'Nassau'. Plants 10 years old 14" high x 4' across. Hardy to -5°F. Leaves

ASA

7th NATIONAL CONVENTION

THINK SPRING TWICE! At the time you are reading this, it is early winter; it's probably cold and possibly snowing. We want to bring you warm thoughts of zephyr-like breezes, the scent of honeysuckle, and the sight of gorgeous azaleas in full bloom. Carry these thoughts with you during January and February while you plan to spend March 22, 23 and 24 enjoying your first spring of the year at "Come Alive in '85," the Azalea Society of America National convention in Mobile, Alabama.

Remember that when Indica azaleas were first brought to the "New World" in the late 1700's by Andre' Michaux, the noted French botanist, they were planted in the South, and Mobile was one of the focal points to receive them soon after their introduction. There has been no diminishing of plantings throughout the years, and today the newer varieties are being tested. Hence, there are 100-year-old plants, as well as new plantings, to be seen in the area.

The Semmes area near Mobile is the nucleus of Alabama nurseries, having hundreds of acres of ornamental plants growing in rows of containers. Azaleas, of course, are among the mainstays of the industry, and forty or so acres of blooming azaleas is a sight to see.

Bellingrath Gardens is known throughout the South for its color displays throughout the year. Azaleas, roses, chysanthemums, and poinsettias are among the multitudes of plants the public enjoys regularly.

We want you to make every effort to join us and your friends for your first taste of Spring in 1985. Further information will be sent to you early in the year, but if you cannot wait, then please contact Russell Scott, Route 2, Box 150, Mobile, Alabama 36609.

"COME ALIVE IN 85"

**Convention Headquarters
Ramada Inn - I-65 & Airport Blvd.
Mobile, Alabama**

SCHEDULE OF ACTIVITIES

Friday, March 22

- 5:00-9:00 p.m. Registration (Lobby)
Dinner on your own
- 7:30 p.m. Ballroom
Welcome to Mobile
President's Welcome
- 8:00 p.m. Introduction of Fred Galle's new azalea book
- 8:30 p.m. Brookside Gardens Satsuki Project
- 9:00-10:00 p.m. Coffee, Cake, & Conversation

Saturday, March 23

- 7:00-8:00 a.m. Registration
Continental Breakfast
- 8:30 a.m. Buses depart to Bellingrath Gardens.
Tour Gardens and Home at your own pace
- 11:30 a.m. Buses depart Bellingrath Gardens to Mobile Botanical Gardens
- 12:00-1:30 p.m. Box Lunch at Mobile Botanical Gardens
- 1:30 p.m. Buses depart to Semmes, Alabama
Tour the largest and most productive ornamental nursery areas in the United States
- 4:30 p.m. Buses return to Ramada Inn
- 4:30-6:30 p.m. Plant Sales
- 5:00-6:30 p.m. Board of Governors Meeting
- 6:00-7:00 p.m. Social Hour (Cash Bar)
- 7:15 p.m. Buffet Dinner
- 8:30-9:30 p.m. Convention Address
- 9:40 p.m. Mini Auction of Special Azaleas
- 10:00-11:00 p.m. Final Plant Sales

Sunday, March 24

- 7:00-8:00 a.m. Continental Breakfast
- 8:30 a.m. Buses depart for tour of Mobile*
- 12:00 Noon Buses return to Ramada Inn

The Ramada Inn has given us a room rate of \$45.00 per night for two people. If you prefer to stay at another motel, there are six others in the near vicinity. Also there are numerous restaurants in the area for Friday night dining—ranging from Japanese to Southern seafood.

We have arrived at a total fee of \$60.00 per person for registration and all activities except the tour of Mobile on Sunday. This may be a couple of dollars high, but we

cannot afford to "go in the hold". Neither our local treasury nor the National Society can absorb a loss. After March 1st, the registration fee will be \$65.00.

Every effort will be made to give you dollar value for dollar received. Join us for the 7th A.S.A. National Convention and make "Come Alive in '85" your horticultural experience of the year. Send in your registration as soon as it arrives in the mail.

*The tour of one of the oldest distinguished cities in the Nation will include a drive along the famed azalea trail and visits to ante-bellum plantation and townhouse mansions and azalea gardens. This is a guided tour at an extra cost in addition to the registration fee of \$20.00 per person. A minimum of 25 participants is required, and if fewer choose this option, it may be cancelled and the money refunded.

PROPOSED AMENDMENTS TO A.S.A. BY-LAWS

ARTICLE III MEMBERSHIP, Section 2. Classes of Membership - currently reads: "There shall be three classes of membership: annual, life and honorary." This is to be amended to read: "Classes of membership shall include annual, life, and honorary. Other classes may be established by the Board of Governors as needed."

ARTICLE IV CHAPTER ORGANIZATION, Section 3. Membership - Third sentence now reads: "There shall be two classes of membership, annual and life, as defined by Article III of these by-laws." This is to be amended to read: "There shall be at least two classes. . ."

Rationale: These two amendments will permit the Board of Governors to establish additional classes of membership if deemed desirable.

ARTICLE IV CHAPTER ORGANIZATION, Section 7. Dues payable to ASA. - Fourth sentence now begins: "Each chapter shall be required to forward to the National Society on a monthly basis \$5.00 of each \$10.00 dues paid. . ." This is to be amended to read: "Each chapter shall retain its agreed apportioned share of the annual dues and forward the remainder to the National Society."

Rationale: With the change in dues, the present clause is outdated.

In an associated action, the Board of Governors will ask the membership at the annual meeting in March 1985 to approve a new apportionment of dues between chapters and the National Society. The chapter would retain \$5.00 of each of its member's dues, with \$10.00 going to the National Society. Life memberships for chapter members would be apportioned in like proportion with the chapter retaining \$75.00 of the \$225.00 fee.

Rationale: The National Society needs additional funds to support a quality quarterly journal and has few sources of income other than dues. Chapters have other options for raising funds for their needs.

AZALEA PUBLICATIONS OF INTEREST

BOOK REVIEW—A Brocade Pillow (Azaleas of Old Japan). Ihei, Ito. John Weatherhill, Inc., New York and Tokyo, 1984.

A Brocade Pillow is a translation of *Kinshu Makura*, a five volume Japanese treatise on azaleas written in 1692 by Ito Ihei. The translation to English is by Kaname Kato, a noted horticulturist and consultant to the Bonsai Association of Japan, and revised by John L. Creech, former Director of The United States National Arboretum. It is translated from a 1976 reprinting of the original that was supervised by Yotaro Tsukamoto and sponsored by the Satsuki Society of Japan.

Ihei, a Japanese nurseryman from a major horticultural center near Japan's capital during the late seventeenth century, was a recognized azalea authority. Known in his day as "Mr. Kirishima", after one of the more popular azalea types of the period, Ihei is remembered for developing a standard system for describing azaleas which he used to describe the varieties in cultivation at the time. Illustrated with wood-block prints, *A Brocade Pillow* was written to provide descriptions to alleviate the confusion caused by name duplication, a problem which continues today.

This book is important because it is a readable form of the first known monograph on azaleas, preceding Wilson and Rheder's Monograph (1921) by 229 years. It documents the early cultivation of the Japanese azalea species and records the existence of the Korean species in cultivation in Japan at the time. A nice feature is that comments have been appended to Ihei's descriptions in an effort to clarify apparent inconsistencies and take advantage of several centuries worth of hindsight.

Ihei divides azaleas into two main groups, the "tsutsuji", consisting largely of selected forms of and hybrids between *Rhododendron kaempferi*, *R. kiusianum*, *R. sataense*, *R. macrosepalum*, *R. scabrum*, *R. yedoense* var. *poukhanense*, and *R. x mucronatum*; and the "satsuki" which are primarily selections of and hybrids between *R. indicum* and *R. eriocarpum*. The yellow form of *R. japonicum* is grouped with the tsutsuji, and its inclusion demonstrates that *R. japonicum* was in cultivation at the time of Engelbert Kaemkper's visit to Japan in 1690, apparently a point of some controversy with Wilson.

A Brocade Pillow offers the azalea enthusiast unique insight into an important period of azalea development, the products of which were later instrumental in the development of the Belgian Indian, Southern Indian, Glenn Dale, and Robin Hill hybrids (to name a few), and many more recent Satsukis. It is perhaps surprising to learn that some of the azaleas in our yards today were well established in the "trade" in the 1600's (e.g. 'Shokko Nishiki'), having been developed sometime in the sixteenth century. Of particular interest to this reader were the references to the *koshimino* or "skirt" form of flower which is similar to but distinguishable from the hose-in-hose form, uncommon in the West.

W. C. Miller III

SATSUKI BOOK INDEX OFFER

With the recent explosion of interest in Satsuki azaleas, it is no surprise that people have begun ordering the many fine Japanese Satsuki books that have recently become available. The books are exquisitely illustrated with bright and colorful pictures and have the potential for becoming useful references. That most of the books were not produced with the American market in mind is problematic. In general, the cultivar names associated with the pictures are in English, while the text and indexes are printed in Japanese characters. Unless you can read Japanese characters or can decipher the order in which the cultivars are presented, the books are difficult to use, since the cultivars are not presented alphabetically.

The obvious solution to this problem is the creation of English indexes. The staff of **THE AZALEAN** has recently prepared an English index for the "Pocket Size Satsuki Dictionary" from the Satsuki Research Company which contains more than 800 different cultivars.

A copy of this index can be obtained by sending a check made out to **THE AZALEAN** in the amount of \$2.00 to:

Pocket Size Satsuki Dictionary Index Offer
THE AZALEAN
9233 Farnsworth Drive
Potomac, MD 20854

All net proceeds will go to support **THE AZALEAN**.

How can you be sure that you have the book that corresponds to the index? If you find 'Otome', 'Higasa', and 'Wakaebisu' on pages 133, 661, and 872, respectively, of the book you have, then this index is for you.

William C. Miller III
Education and Scientific Director
THE AZALEAN

Newly Revised 2nd Edition of Plant Propagation Practices by James S. Wells

The October 15, 1984 issue of The American Nurseryman announced that James Wells has revised his classic and popular book dealing with plant propagation. "The purpose of this book is to provide a simple, readily understandable description of the basic methods used to propagate nursery plants. It has been written primarily for the young nurseryman, with or without a college background, who, after a few years experience is planning to start a nursery for himself. He finds that he would like to propagate some of the basic plant materials that he needs. How, when, and where should he begin? This book attempts to provide the answers to these questions. 350 Pages - 100 Photographs" \$19.95 plus \$1.25 postage. May be ordered through American Nurseryman, 310 S. Michigan Avenue, Chicago, Illinois 60604.

MORE ON TISSUE CULTURE

The July 19, 1984, issue of *Florists' Review* reports that the nursery products division of The Weyerhaeuser Co. has started a \$5 million physical plant program at its Apopka, Florida, tissue culture production center. "We look to triple our production capabilities within the next year. . .", reports Gary Mariana, division general manager, toward "Becoming a major producer of starter plants for foliage, floriculture, ground covers, fruits and vegetables and other agricultural crops, both in the United States and worldwide. . ." according to Mel Garber, general manager of the tissue culture center. Currently, the Apopka, Florida facility has more than 5,000 square feet dedicated to laboratories for tissue culture. The expansion program will build both additional laboratories and greenhouses.

Chapter and member activities for inclusion in **ASA NEWS AND VIEWS** should be sent to the Editor three months prior to the month of publication desired in **THE AZALEAN**.

LETTER TO THE EDITOR

I would like to know something definitive about the relationship between 'Polypetalum' (syn. *Rhododendron indicum* var. *polypetalum*) and 'Kinsai' (syn. 'Kin-no-sai', 'Kin-no-zai', 'Kinzaï'). Harold Greer, of Eugene, Oregon, has recently written that 'Polypetalum' is also known as 'Kinsai'... "though there seems to be some difference..." Wilson and Rheder's *A Monograph on Azaleas* suggests that they are the same. If they are the same, or essentially the same, collectors need not acquire both plants.

William C. Miller III
Bethesda, Maryland

THE AZALEAN welcomes letters with questions, comments, observations, points of interest, etc. from our readers. Replies to the letters should be sent to the Editor. They will be forwarded to the author(s) and, if of sufficient general interest, may be published in a future issue of **THE AZALEAN**.

INDEX FOR VOLUME 6 OF THE AZALEAN

- Azalea Classics
 - 6: 7-8 (March 1984)
 - 6: 29-30 (June 1984)
 - 6: 48-50 (September 1984)
 - 6: 64-66 (December 1984)
- azalea cultivars and hybrids (see hybrids)
- azalea cultivation (see cultivation of azaleas)
- azalea descriptions (see describing azaleas)
- 'B.Y. Morrison' evergreen cultivar
 - 6: 11-12 (March 1984)
- Belgian-Glenn Dale (see hybrids: Belgian-Glenn Dale)
- 'Ben Morrison' evergreen cultivar
 - 6: 11-12 (March 1984)
- books
 - : A Brocade Pillow
 - 6: 54 (September 1984)
 - 6: 69 (December 1984)
 - : *Phytophthora*
 - 6: 54 (September 1984)
 - : Plant Propagation Practices
 - 6: 69 (December 1984)
 - : Satsuki book index
 - 6: 69 (December 1984)
- Brookside Gardens Satsuki Collection (see Satsuki project)
- Brown, William L.
 - GRAFTING OF AZALEAS
 - 6: 31-32 (June 1984)
- companion plants
 - 6: 47-48 (September 1984)
- Corbett, Edward G., Schramm, Robert J., and Tessler, Norman

VARYING BARK/PEAT RATIOS IN CONTAINER MEDIA AFFECTS THE GROWTH OF THREE CULTIVARS
 6: 60-62 (December 1984)
 cultivation of azaleas (see also propagation of azaleas)
 6: 38 (June 1984)
 6: 47-48 (September 1984)
 6: 60-62 (December 1984)
 6: 62 (December 1984)
 describing azaleas
 6: 48-50 (September 1984)
 Duval, Leon
 EXCERPT FROM *LES AZALEES*
 6: 29-30 (June 1984)
 Evans, Charles H.
 ORIGINS OF THE EVERGREEN HYBRIDS 'BEN MORRISON' AND 'B.Y. MORRISON'
 6: 11-12 (March 1984)
 Evans, Nancy E.
 THE AZALEA FAMILY TREE
 6: 2 (March 1984)
 evergreen azaleas (see hybrids)
 fertilizer and fertilizing azaleas (also see cultivation of azaleas)
 6: 62 (December 1984)
 First State (see hybrids: First State)
 forcing azaleas
 6: 27-28 (June 1984)
 6: 29-30 (June 1984)
 6: 37 (June 1984)
 Gable (see hybrids: Gable)
 Gartrell, Robert D.
 A PERSONAL EXPERIENCE IN BREEDING AZALEAS
 6: 7-8 (March 1984)
 Gill, Stanton A.
 JUGLANS TOXICITY AND FALL FERTILIZATION
 6: 62 (December 1984)
 grafting of azaleas (see propagation of azaleas: grafting)
 growing azaleas (see cultivation of azaleas)
 Glenn Dale (see hybrids: Glenn Dale)
 Glenn Dale Preservation Project
 6: 16 (March 1984)
 6: 53 (September 1984)
 Hager (see hybrids: Hager)
 Hager, Don
 THE HAGER HYBRID AZALEAS
 6: 51-53 (September 1984)
 THE IMPORTANCE OF POROSITY AND HOW TO MEASURE IT IN YOUR CONTAINER MIX
 6: 38 (June 1984)
 Hill, Polly
 RHODODENDRONS, AZALEAS, AND SOME OTHER INTRODUCTIONS FROM BARNARD'S INN FARM
 6: 42-47 (September 1984)
 hybridization (see propagation of azaleas: hybridization)
 hybrids
 : Belgian-Glenn Dale
 6: 33-35 (June 1984)
 : First State
 6: 67 (December 1984)
 : Gable
 6: 37 (June 1984)

: Glenn Dale
 6: 11-12 (March 1984)
 6: 37 (June 1984)
 : Hager
 6: 51-53 (September 1984)
 : Hohman
 6: 11-12 (March 1984)
 : North Tisbury
 6: 42-47 (September 1984)
 : Pericat
 6: 64-66 (December 1984)
 : Robin Hill
 6: 7-8 (March 1984)
 : Satsuki
 6: 57-59 (December 1984)
 Lee, Frederic P.
 DOUBLE AZALEAS
 6: 48-50 (September 1984)
 Link, Conrad B.
 FORCING GLENN DALE AND GABLE
 HYBRID AZALEAS
 6: 37 (December 1984)
 McCulloch, Steven M.
 MICROPROPAGATION OF AZALEAS
 6: 22-25 (December 1984)
 McDonald, Sandra F.
 AZALEAS FOR COMMERCIAL FORCING
 6: 27-28 (December 1984)
 Meyer, Martin M., Jr.
 A NEW METHOD FOR PROPAGATING
 WOODY PLANTS FROM TISSUE
 CULTURE
 6: 13-15 (March 1984)
 Miller, William C. III
 ERIOCARPUM: A CASE OF
 ENVIRONMENTALLY MODULATED HABIT
 6: 63 (December 1984)
 THE BELGIAN-GLENN DALE HYBRIDS
 6: 33-35 (December 1984)
 mixes: container, pot, bed
 6: 38 (December 1984)
 6: 60-62 (December 1984)
 Morrison, Ben Y. (see Duvat, Leon)
 Nachman, Rosalie
 SHADY GARDENS
 6: 47-48 (September 1984)
 North Tisbury (see hybrids: North Tisbury)
 Pericat (see hybrids: Pericat)
 plant toxicity
 6: 62 (December 1984)
 pot mixes (see mixes: container, pot, bed)
 propagation of azaleas (see also cultivation
 of azaleas)
 6: 35-36 (December 1984)
 : grafting
 6: 31-32 (December 1984)
 : hybridization
 6: 3-6 (March 1984)
 6: 7-8 (March 1984)
 6: 9-10 (March 1984)
 6: 42-47 (September 1984)
 6: 51-53 (September 1984)
 : tissue culture
 6: 13-15 (March 1984)
 6: 22-25 (December 1984)
 6: 70 (December 1984)

Pryor, Robert L.
BREEDING AZALEAS FOR EVERGREEN
LEAVES AND YELLOW FLOWERS
6: 9-10 (March 1984)

Ridgway, Henry W.
ALPHONSE PERICAT'S AZALEAS
6: 64-66 (December 1984)

Robin Hill (see hybrids: Satsuki)
Satsuki (see hybrids: Satsuki)
Satsuki index (see books)

Satsuki Project: Brookside Gardens Satsuki
Collection
6: 25 (December 1984)
6: 57-59 (December 1984)

Schramm, Robert J. (see Corbett, Edward G.)
soilless mixes (see mixes: container, pot,
bed)

Tessler, Norman (see Corbett, Edward G.)
tissue culture (see propagation of azaleas:
tissue culture)

Voss, Donald H.
THE NAMES OF ROBIN HILL AZALEAS:
SIDELIGHTS ON A FAMILY HISTORY
6: 3-6 (March 1984)

Wells, James S.
PROPAGATION FOR BEGINNERS
6: 35-36 (December 1984)