





Publication of the American Begonia Society

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AMERICAN BEGONIA SOCIETY

Founded January 1932 by Herbert P. Dyckman

Aims and purposes

TO stimulate and promote interest in begonias and other shade-loving plants.

TO encourage the introduction and development of new types of these plants.

TO standardize the nomenclature of begonias.

TO gather and publish information in regard to kinds. propagation and culture of begonias and companion plants.

TO issue a bulletin which will be mailed to all members of the society.

TO bring into friendly contact all who love and grow begonias.

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INSIDE/September-October, 1982—Begoniafest

THE COVER: The awe-inspiring sight of tuberous begonias stretching to the horizon at Brown Bulb Ranch greeted bus tour participants at the Begoniafest convention in Santa Cruz, Calif., in September. This scene was captured by Tim O'Reilly of La Mesa, Calif. See Begoniafest coverage beginning on page 96.

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NOTES / From the editor

Husband Chuck Anderson, installed as ABS president at the Begoniafest convention, has removed himself as a co-editor of *The Begonian*, leaving me to chew my fingernails with worry about my ability to go it alone as editor.

Alas, I heaved a sigh of relief when Lynda Goldsmith of Fairfax, Vermont, agreed to become *Begonian* features editor, helping out especially in soliciting articles of all sorts that are not scientific. Lynda is active in many robins and has contacts throughout the society—particularly in the East and with at-large members—which I hope will increase the diversity of contributions to our magazine.

I invite budding authors to contact Lynda (her address is on the inside front cover) and volunteer to write. I will continue as liaison with authors of technical manuscripts, while also seeking out general articles. The division between our roles is not sharply defined—a degree of ambiguity seems appropriate somehow! If you have a story idea or would like to volunteer to write for *The Begonian*, contact either of us.

One of the first things Lynda wants to do is to write, or find someone else to write, a story about Ed and Millie Thompson's new Thompson Greenhouse: A Living Museum of Begonias. The greenhouse recently opened at Southampton College on Long Island. We know you'll want to read about it, so we'll publish a story as soon as possible.

Back to the recently resigned co-editor: in the last year Chuck has done the bulk of work on *The Begonian* so I could devote more energy to my career at Stanford University. I'm grateful for all the support I get from him—which even extends to him doing 95% of the cooking at our house. (He's a liberated man!)

When he asked me to stay on as *Begonian* editor, Chuck promised to help out if I needed it. Over breakfast I asked his advice about the design of a photo layout in this issue, to which he replied, "The president can't dictate to the editor!" When our laughter subsided he did, indeed, offer his opinion.

For this issue Chuck edited the transcripts of three seminars given at the recent Santa Cruz Begoniafest convention. The whole seminar program was so well received at Santa Cruz that we wanted to report as many of them as we possibly could. Unfortunately, some of the talks work only as slide shows. Narration without slides often doesn't translate effectively to print.

Please turn to page 127



BEGONIAFEST

The grand celebration: ABS marks its first half-century and launches its second

More than 200 ABS members including a contingent from Japan marked the society's 50th anniversary in September with a nod to the past, a look at the future, and a grand celebration of where the begonia world is right now.

This was "Begoniafest," ABS' golden anniversary convention and show in Santa Cruz, Calif., on Sept. 9-12.

Members from across the country many of whom had never before participated in an ABS convention—came to Santa Cruz to take part in the completion of a half-century and the launching of another.

"From the start, our intention was for people to enjoy, to be really excited about this convention," said Chairman Mary Margaret Rafferty. "A society's golden anniversary is something to be proud of, and we wanted to stage an event that reflected this achievement."

From Thursday, when three busloads of members toured tuberous begonia nurseries and Jackie Davis' Aptos garden under the direction of Monterey Bay Area Branch, through Sunday, when the Na-

tional Begonia Festival parade floated through Capitola, convention participants went out of their way to express their satisfaction.

Typical was the assessment of Santa Barbara Branch members, reported in the branch newsletter, *La Begonia Barbareña*: ". . . the convention was a huge success and lots of fun for everyone."

Homage to the society's 50-year past came at a Thursday night reception, where attending past presidents were introduced and posters picturing ABS historical events were hung.

On Saturday, past presidents breakfasted together and summarized their terms in a program organized by Margaret Ziesenhenne, president during 1974-76. Past presidents again were noted at the Saturday night banquet.

The current status of the world of begonias was explored in nearly every conceivable way. A slate of 17 seminars covered begonia growing, research, and other topics:

Alice and Isadore Gold, champion San Francisco Branch growers, outlined tu-

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The camera catches long-time friends Rudy Ziesenhenne and Joy Logee Martin in a greeting (far left) common at Begoniafest. Smiles and laughter were everywhere

Begoniafest photos/Karen Bartholomew & Chuck Anderson

Louise and Leo Best of Azusa, Calif., spent two days searching for Debi Best of San Leandro, Calif. It turns out they're not related, but they had a nice visit anyway. Debi was installed as ABS secretary at the Saturday banquet.



berous begonia culture. In detail, they covered growing conditions, potting mix, timing, feeding, pest control, and other factors in their success. (The Golds also won "best in show" with *B*. 'Curly Silver Sweet'. See page 106.)

Blair Winner, hybridizer at Denholm Seeds of Lompoc, Calif., described his work breeding multiflora maxima tuberous begonias for his wholesale employer. He pointed out that such a project must carry the potential of substantial eventual sales and profit.

Kingsley Langenberg of the Greater Chicago Branch gave a step-by-step demonstration of growing begonias from seed. King is a frequent seed grower himself.

Irv Phillips, Jr., a chemical company executive and fertilizer expert, explained how to achieve the best soil mix and fertilizing program for begonias. He discussed all chemical elements plants need and how to provide them.

In a panel discussion, various ways to grow begonias in different U.S. climates



Transplanted Texan Bobbie Lovera, now of Rubdioux, Calif., sold \$1,081 in books for the ABS Bookstore. We don't know how much she got out of Carol Simpson, Riverside, Calif.

were described. Howard Berg, past president of Knickerbocker Branch, moderated. Speakers were Joy Logee Martin of Connecticut; Patrick Worley of coastal California and formerly of Minnesota; Dr. William Ireton of interior California, and Florida's Charles Jaros.

Chuck Anderson, a garden editor and



Adele Zemansky of Teaneck, N.J., is the happy and proud mother of Herbert Zeman, Palo Alto, Calif. Attending the convention provided the opportunity for long-time grower Adele to visit her handsome son, who did purchase a couple of plants to try.

Joan Coulat of Sacramento hands out some of the 8,000 plants offered for sale at the show. Sacramento branch members, headed by Joan, organized and staffed the sale. Friday night's sale to ABS members only was chaotic and fun as always. Net income from plant sales amounted to about \$3,000.



new ABS president, discussed how to become comfortable using Latin names of begonias.

Begonia diseases and how to control them was treated thoroughly by Robert Raabe, plant pathology professor at University of California-Berkeley. (See page 110.)

Howard Berg led a workshop for branch officers, handling program planning, publicity, conduct of effective meetings, and similar subjects.

Jack Golding, Knickerbocker Branch member and an enthusiastic researcher, described botanical characteristics that distinguish begonias. He explained he hopes to whet some appetites for "more than just growing."

Bob Ammerman, owner of a wholesale

fern nursery and new ABS president-elect, delivered a program on ferns as companion plants. His talk covered how ferns grow and their cultural needs.

Rudolf Ziesenhenne, an ABS member since 1935, discussed begonia lore, explaining that you can find begonia motifs in art, books, calendars, china, cloth, ceramics, comics, embroidery, glass, drawings, jewelry, place mats, wrapping paper, and in at least one song.

Chuck Anderson and Karen Bartholomew — Begonian editor — offered advice to branch newsletter editors and publicity chairmen.

Carlton Koehler, entomologist for University of California Cooperative Extension in Berkeley, described common begonia insect pests and made recom-

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San Franciscan Sue Muller, with lots of help from husband Hal, organized a raffle that included as prizes books, gardening items, plants, and cash. Below, fell ow branch member Carol Notaras can barely hang on to the money Sue collected for a special "gold top hat" raffle at the banquet. Prizes in the special raffle included two begonia plates hand-painted by Carol Spediacci and a stained glass representation of a begonia flower donated by Kit Jeans.







Howard Berg of New Canaan, Conn., auctions a rare alocasia during Friday night's show preview and sale.

mendations on their control. He included biological as well as chemical treatments. (See page 114.)

Jack Golding gave a technical seminar on "Adventures in Begonia Research."

Bob Haussler, a greenhouse grower in the Sacramento Branch, drew upon his and others' experiences to tell about greenhouse use. The secret, he said, is to recreate begonias' native tropical atmosphere. (See page 112.)

Norman Plate, Sunset magazine senior photographer, advised members on photographing plants. He outlined basic equipment, how to use it, and secrets of professional horticultural photographers. "A big white card is my most important piece of equipment," he confessed. It helps reflect the light.

Hybridizer Patrick Worley provided a peek at the future with an illustrated talk about his hybridizing efforts.

Nancy Haussler, also of the Sacramento Branch, led an impromptu half-hour aerobic dance-exercise session Saturday afternoon. The seven members who took part reported feeling "energized" afterward. It was suggested that a fitness session be included in future convention programs.

At the Saturday night banquet, Dr. Mildred Mathias, emeritus professor of botany at UCLA, took the convention on a slide tour of the tropics and touched on threats to the rain forests posed by development in these countries.

Dr. Mathias' talk was well received. The next morning, ABS directors formed a conservation committee to recommend ways the society can contribute to preser-



Outgoing President Gil Estrada, just presented with traditional gift from the society—he got one each of all the Sunset books on gardening.



Convention Chairman Mary Margaret Rafferty surveys partygoers in the hospitality room.

vation of rain forests, which are begonia habitats.

The banquet also featured Clarence Hall, ABS president in 1944 and 1959-60, who installed the 1982-83 officers in a touching ceremony laced with humor. (See election results, ABS News, page 125.)

"What you do in the coming months," he advised the new officers, "determines the present and future welfare and progress of this society. Do not neglect members who do not have the opportunity to join branches. Find the reason why new members sometimes do not renew their memberships. . . . Keep your feet on the ground and reach for the stars."

Additionally, Clarence was revealed as winner of the society's top service honor, the 1982 Herbert P. Dyckman award. It was the only major ABS award given this year. (See page 105.)

In his first act as president, Chuck Anderson issued a presidential citation in which he paid tribute to Mildred and Edward Thompson for their book, Begonias: The Complete Reference Guide. He said the Thompsons had been nominated for the Eva Kenworthy Gray Award, but were ineligible because they won the award previously. The Thompsons, who were not able to attend the convention, were lauded for "their unending pursuance of knowledge, dedication to perfection, and sheer determination to get things done . . ." (See ABS News, page 125.)

Tim O'Reilly of La Mesa, Calif., was



Newly installed President Chuck Anderson holds one of the banquet table decorations, a topiary tree covered with tuberous begonia blossoms. The topiaries were made by Carol Spediacci of San Francisco, using tuberous blossoms donated by Brown Bulb Ranch and Antonelli Bros. Each was topped with a 50-year decoration in honor of the golden anniversary.

his usual witty self as banquet master of ceremonies. He pointed out that Clarence, who was installing officer at the ABS silver anniversary convention, first became president in the year the new president was born.

At the banquet, tables were decorated with "begonia trees," topiaries covered with huge tuberous begonia blooms. The flowers were donated by Antonelli Bros. Begonia Gardens and Brown Bulb Ranch, and the topiaries built by Carol Spediacci of the San Francisco Branch.

The annual show and begonia sale drew hundreds of viewers following the Friday night members- and guests-only preview, attended by representatives of Capitola's National Begonia Festival.

The impressive show represented the efforts of 53 entrants, many of whom had never shown plants competitively before. Trophies were silver trays, bowls,

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A bird's eye view for the intrepid few. . . . From atop a railroad bridge only the adventurous lare climb, the view toward the ocean (above) shows thousands attending the National Begonia Festival parade. They line the banks of Soquel Creek and the lagoon, they crowd onto a highway bridge, and they jam themselves onto a bar balcony. In the other direction, against a dense green backdrop (below), the begonia-covered floats prepare to parade lown the creek past the judges into the lagoon.



Photos/Vance Miller

and other usable pieces; the top three trophies were gold-plated brass to mark the golden anniversary.

At the adjoining sale, chaired by Joan Coulat and handled by other Sacramento Branch members, more than 8,000 plants were sold.

Also sold were \$1,081 worth of ABS Bookstore books. Bookstore Mgr. Bobbie Lovera manned her book table during most of the four-day event. Half of the sales were accounted for by *Begonia Portraits*, the late Alice Clark's book of illustrations. Alice's granddaughter, Melissa Lowell of La Jolla, Calif., donated the remainder of copies—185 of them—to the society a few months earlier. Melissa attended the convention.

The ABS annual meeting Saturday was short and uncontroversial; a meeting of ABS directors Sunday morning ratified new board members appointed by the new president.

All during the convention, door prizes—

ranging from new books, hoses, and other sizeable products to premium wines and a tank sprayer—were distributed. The project was spearheaded by San Francisco Branch member Susan Muller.

Top winner of the cash prizes was outgoing ABS treasurer John Ingles of Riverside, who left the convention \$200 richer. Vi Thorne of Tucson won \$100 and L. E. Price of Laurel Springs, N.J., won the \$50 cash prize.

Throughout the convention, the hospitality room did a brisk business. Evelyn Morrie, Santa Clara Valley Branch member, chaired the hospitality committee. Monterey Bay Area Branch, organized by Martha Peterson, provided much of the food.

Climax of the weekend was a trip to nearby Capitola Sunday to view the annual waterborne parade of the National Begonia Festival, this year dubbed "Capitola in Song." ABS member Mabel Corwin of Vista, Calif., served as a parade judge.

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Winners at golden anniversary convention and begonia show

Herbert P. Dyckman Service Award Clarence Hall

Best in Show: Herb Warrick Memorial Trophy

Alice and Isadore Gold, B. 'Curly Silver Sweet' grown on totem

Sweepstakes (grower with most blue ribbons): Sacramento Branch Trophy Joan Coulat, 11 blue ribbons

Begonia Hybrids of Distinction

Martin Johnson, B. 'Jelly Roll Morton' Patrick Worley, B. glabra x B. U003

Division A. Cane-like: Alfred D. Robinson Branch and Santa Barbara Branch Trophy

Joan Coulat, B. 'Nokomis' (cultural award—91 points)

Division B. Shrub-like: Jack Golding Trophy

Carol and Red Spediacci, B. 'Ginny' (cultural award—94 points)

Division C. Thick-stemmed: Bernice Brilmayer Memorial Trophy

Jackie Davis, B. 'Speckled Roundabout' (cultural award—90 points)

Division D. Semperflorens: Elda Haring Trophy

Carol and Red Spediacci, B. 'Calla'
Division E. Rhizomatous: Ed Behrendt,
J. O. Gilden, Walt Hansen Memorial
Trophy

Susan and Hal Muller, B. kenworthyae x bowerae (cultural award—96 points)

Division F. Rex Cultorum: Paul Lee Memorial Trophy

Jackie Davis, *B. hemsleyana* x rex cv. (cultural award—92 points)

Division G. Tuberous: Maurice Kane



Sue and Hal Muller's pink-flowered B. gracilis was a show-stopper. Winner of the Maurice Kane trophy for best tuberous, it also garnered 94 points for a cultural award.

Trophy

Susan and Hal Muller, B. gracilis (cultural award—94 points)

Division H. Trailing-Scandent: Ruthanne Williams Memorial Trophy

Joan Coulat, B. polygonoides (cultural award—90 points)

Division I. Contained atmosphere:



ludy Wallech's B. 'Buttercup' won 97 points for a cultural award—the highest point score in he show—along with the Mae Blanton Branch trophy for best contained atmosphere.

Mae Blanton Branch Trophy

Judy Wallech, B. 'Buttercup' (cultural award—97 points)

Division J. Commercial grower: Miami Branch Trophy

Bob Ammerman, B. 'Looking Glass' (cultural award—92 points)

Division K. Species: Florence Carrell Memorial Trophy

Jackie Davis, B. sanguinea (cultural award—91 points)

Division L. Hanging container: San Francisco Branch Trophy

Hyacinth and Hal Smith, orange Tuberbrida (cultural award—94 points)

Division M. 25 year cultivar: San Miguel Branch Trophy

Shirley Wilson, B. 'Medora' (cultural award—91 points)

Division N. 50 year cultivar: East Bay Branch and Santa Clara Valley Branch Trophy, Golden Anniversary Division

Joan Coulat, B. 'Preussen' (cultural award—91 points)

Division O. Novel-grown: Westchester Branch Trophy

Alice and Isadore Gold, B. 'Curly Silver Sweet' (cultural award—96 points)

Division P. New introduction—hobby grower: Palomar Branch Trophy

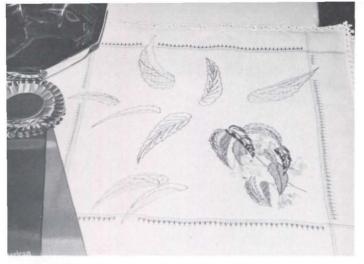
Martin Johnson, B. 'Jelly Roll Morton'

Division Q. New introduction—com-

A pewter carafe was Bob Ammerman's prize for B. 'Looking Glass', winner of the Miami Branch trophy for best plant in the commercial division.



mercial: Edna Stewart Branch Trophy Patrick Worley, B. glabra x B. U003 Division R. Seedling: Kit Jeans Trophy Judy Wallech, B. nelumbiifolia



Kimiko Mori of Japan won the Capitola National Begonia Festival trophy for best art or craft with an embroidered tablecloth. Two other tablecloths by Mrs. Mori took second and third in their class.

Kit Jeans donated a stained glass trophy she made for the best seedling. The winner was Judy Wallech.



Division S. Novice: Rubidoux Branch Trophy

Carol Catalano, B. 'Fred Bedson'

Division U. Photograph—entire plant: Japan Begonia Society Trophy

Charles Jaros, B. 'President'

Division V. Photograph—artistic: Greater Chicago Branch Trophy

Chris Fergis, B. 'Barbara Ann' (flower)

Division X. Fern: Japan Begonia Society Trophy

Chuck Anderson and Karen Bartholomew, *Platycerium bifurcatum*

Division Y. Other shade plant: Murray Morrison Memorial Trophy

Thomas Polka, Nautilocalyx preturatus

Division Z. Educational display: Desert Begonia Branch Trophy

Monterey Bay Area Branch, tuberous begonias

Division AA. Art or craft: Capitola National Begonia Festival Trophy

Kimiko Mori, embroidered tablecloth

Other cultural awards

Susan and Hal Muller, B. 'Cathedral', 91 points

Bob Ammerman, B. 'Medora', 90 points Jackie Davis, B. 'Fireflush', 90 points Judy Wallech, B. 'Emerald Jewell', 92 points

Carol and Red Spediacci, B. 'Silver Jewell', 93 points



B. polygonoides, one of Joan Coulat's division winners. The gold-plated sugar and creamer set (right) was awarded to Joan for sweepstakes, the most blue ribbons.

Clarence Hall wins Herbert P. Dyckman award

Clarence Hall, the oldest living past president of ABS, was named recipient of the society's coveted Herbert P. Dyckman award for service at the Begoniafest golden anniversary convention Sept. 11 in Santa Cruz, Calif.

Clarence, who served as installing officer at the silver anniversary convention in 1957 and again at this year's golden

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anniversary convention, first served as society president in 1944, the year recently installed president Chuck Anderson was born. He was again ABS president in 1959-60.

Clarence and wife Tish joined the Theodosia Burr Shepherd Branch in January 1938, after attending the December 1937 meeting as guests. The branch, located in Ventura, was the first ABS branch. It was formed in 1937 because Ventura's distance from Long Beach made commuting to ABS meetings difficult for many members.

Quickly becoming active in the society, Clarence served as branch president and national public relations director in 1941. He was a national director in 1942, and became president-elect of the national in 1943.

He later served as president of the Glendale branch in 1963-64 before moving to Sacramento, where he has been an active and important member of that city's branch for many years.

Clarence became interested in begonias in 1937 when he met Katherine and Herman Wietz, who were ABS members. Impressed with their shade garden, Clarence decided to abandon his racing pigeons in favor of begonias. He turned the pigeon coop into a growing area and got started with plants he purchased from Katherine Wietz.

In the many years that followed, Clarence remained devoted to begonias, spurning other plant societies in favor of ABS.

Following 35 years in sales management with Prudential Insurance Co., Clarence and Tish retired to Sacramento to be near their son. In Sacramento, Clarence taught indoor plant classes for the Rancho Cordova Park District and at Albert Einstein school for several years. His classes were always full.

Widely admired and much loved by his Sacramento friends and other ABS members, Clarence is reputed to be a bon vivant. He loves to amuse his friends with stories and entertain them with antics such as donning a wig during the installation ceremony to cover his bare head. His energy and wit never fail to bring alive any party he attends.

But he's serious about his plants. A tour of his Sacramento greenhouse is never done quickly: Clarence has much information at his fingertips, which he eagerly shares with visitors.



Thelma O'Reilly presents the Herbert P. Dyckman award to Clarence Hall during the Saturday evening banquet. Acting on behalf of Awards Chairman Kit Jeans, who was unable to attend the convention, Thelma emphasized that Clarence was being honored for long-time service to ABS. Clarence is the oldest living past president of the society.

Best in show: rex growing on totem pole

Thelma O'Reilly

What a spectacular Golden Anniversary celebration! Heading the list of Begoniafest highlights was the superbly beautiful Best of Show plant, *Begonia* 'Curly Silver Sweet'. It measured 33½ inches high, with shimmering silver, greenveined leaves above and wine-red below. The judges' comment on the entry card said it all—"WOW!"

The proud recipients of all the ribbons and trophies won by this plant are Alice and Isadore Gold of San Francisco, Calif. Alice, beaming and jubilant, shared the experience of growing this upright, branching *B. rex* cultivar.

It all began when she obtained it as an unnamed begonia from a plant table in 1974. Specialists in growing the Tuberhybrida begonias, Alice and Iz knew little

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about the culture of *B. rex* cultivars. Later, after nearly losing *B.* 'Curly Silver Sweet', they dumped it from the pot and found knarled, soggy, rotting roots, a condition Alice attributed to overwatering.

"We spread newspapers on the ground, covered the foliage with extra newspaper, and operated," Alice explained. "Then we spread our mistakes in the sun, which is a marvelous healer. We gave it a clean pot, new soil, pinned it round and round the same totem pole, and put it back on the bench in the lathhouse." The operation was a success.

Nearly every begonia collector has tried to grow *B*. 'Curly Silver Sweet' at one time or another (I have tried at least six times). Just when you think you are on the road to success, mildew or wilt hits this treasure and death results rapidly.

So, the first question that comes to mind is, "How does one grow this begonia so successfully?"

Alice and Iz grow it under conditions similar to those for their tuberous begonia collection. It flourishes in an unheated

Thelma O'Reilly lives at 10942 Sunray Pl., La Mesa, CA 92041. house with a glass overhead, partial glass panels on three sides, with a 10-inch opening between roof and side panels, and 5-foot fencing from bottom of glass panels to ground level. The open end of the lathhouse enters directly into the tuberous house which is open at the far end. Ocean breezes constantly sweep through the open top draft area between top and side glass panels. It grows in diffused light except when it receives western sun in late afternoon.

Most of the plants in Alice and Iz's begonia collection are grown in clay pots. Alice says: "Iz keeps the clay pots clean. He loves to polish silver so he doesn't mind clay." They water by the touch system. When soil feels dry the pot is thoroughly flushed with water at the soil level. The foliage is never watered unless the weather gets hot by San Francisco standards (85 degrees or more); then it is misted.

Feeding is done on a regular basis. Fish emulsion is used on all begonias, one tablespoon to the gallon every other week. Mildew is controlled with karathane. Alice and Iz keep a close watch on the undersides of the leaves where mildew usually starts and shows clearly on the deep red color. When mildew is detected,

Alice Gold, moments after discovering her rex cultivar, B. 'Curly Silver Sweet', took best of show.



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Alice and Isadore Gold grow B. 'Curly Silver Sweet' on a totem pole in their San Francisco garden. In addition to winning a silver tray as the Westchester Branch trophy for best novelgrown begonia, the Golds received a goldplated ice bucket for best plant in the golden anniversary show.

both surfaces of all leaves are sprayed with a hand mister until sopping wet. Then, gently supporting back of leaf in one hand, the upper surface is carefully wiped off, especially the tip, so the spray solution does not stain the leaf surface.

The secret to the perfect symmetry of this totem pole plant is the attachment of new growth tips to the rotem pole and regular turning. Propogation is from tip cuttings or leaves.

B. 'Silver Sweet' was created by Leslie Woodriff. He gave the following information in *The Begonian* for May 1947 on page 94:

"'Silver Sweet' (Fairyland Hybrid). It is one of our own hybrids that has been

sold for the past five years but is still one of the finest silver-leaved varieties we have. Has green central zone surrounded by silver. Pink fragrant flowers add much to the character of the plant. An outstanding house plant growing in house conditions that other Rexes won't take. Medium-sized leaf."

B. 'Silver Sweet' produced a beautiful sport a few years later. Leslie named the sport B. 'Curly Silver Sweet' and introduced it in 1951.

It was thrilling for convention guests to have the opportunity to enjoy the sight of B. 'Curly Silver Sweet' grown so culturally perfect into such a huge specimen—and in such an unusual manner.

Convention tour: sights awesome to lovely

Phyllis Bates

The huge bus crawled past the crew busily installing a new water main near the freeway, a scene of disarray. It moved past the county dump—even greater disorder.

It wended its way around a large mound of earth, and the passengers on the bus gasped at the awesome brilliant stripes on the landscape formed by millions of Tuberhybrida begonia blossoms in rows that reached the horizon. These were the growing grounds of the Brown Bulb Ranch at Marina, Calif., at the height of their growing season. (See the cover.)

Here on the sandy dunes a short distance from the Pacific Ocean the weather conditions are ideal for the growth of

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these magnificent hybrids. The winters are mild and the growing seasons are sunny but tempered by the almost daily fog that hovers over the area. These fields yielded more than three million tubers to the world market last year.

John Hutchins, manager of the growing fields, explained that about 7,000 parent plants provide seeds. About 10 ounces of seeds were planted last spring at facilities in Capitola. Approximately 31,000 seedlings were transplanted at the appropriate stage and moved first to a lath-covered protected area, and later put in the ground.

Small tubers are later placed in the open fields by a special mechanical planter. The soil is beach sand and has been amended with gypsum, particularly in spots where the adobe clay is close to the surface.

The tubers are arranged in the fields according to color and flower form, and the flowers observed for quality. In the fall, the tops of the plants are removed and burned. The tubers are harvested

Phyllis Bates of 554 Arden Dr., Encinitas, CA 92024 is a past editor of The Begonian and coordinator of the ABS unidentified species list. with a modified potato picker, collected, cleaned, and dried for later shipment. Unsold and immature tubers are returned to the fields to grow for another season.

ABS tour members scurried to see the blooms close up. They responded joyfully to the offer to gather blossoms. Every vantage point held ABS members with cameras intent upon carrying home proof of the immense sea of flowers.

Shortly after the ABS tour, the growing fields would be opened to those who would decorate parade floats, shops, and homes for the Capitola National Begonia Festival. For many years, Brown Bulb Ranch has donated thousands of blooms for the festival.

On its way once again, the bus passed areas where other bulbs are grown: encomis, agapanthus, ismene, and miniature callas.

The home of Jackie Davis in Aptos beautifully featured a plant collection in a garden. Jackie, a collector of all types of begonias, has specimens closely planted throughout her landscape. The lawn and patio area are surrounded by lath-covered beds at varying levels. The plants are arranged either directly in the ground, or in pots sunken into the ground. Baskets of pendulous Tuberhybridas hang from the overhead supports along with the scandent types with either clusters of blooms or small individual flowers.

There were a few ferns, foliage plants, and fuchsias interspersed to add interest to the groupings. The foundation plantings were also begonias—shrubby ones like B. 'Gene Daniels' and B. 'Credneri' and B. angularis along with the ubiquitous bedding semps. The rich purple of heliotrope and clematis blossoms provided lovely color contrasts. A waterfall and small pond were the focus of one area, and a small greenhouse on the opposite side of the lot served as nursery for rooting cuttings.

Jackie has labeled almost all of the begonias in her garden. She maintains a photographic inventory of her plants, a practice she began when her young and curious grandchildren gathered the labels



Photo/Jackie Davis

Acres of tuberous begonias at Brown Bulb Ranch keep shutterbugs busy.

in their play.

Jackie had many splendid specimens in the national show. It was difficult to imagine where they fit into her landscaping scheme. She assured us that each had its own niche. It was also amazing to learn that the garden had been battered by a hailstorm only four weeks before.

At Antonelli Bros. Begonia Gardens, the bus tour was greeted by the founder's son Skip Antonelli, who explained that the choicest plants representative of the firm's stock were to be found in the huge

display area at the entry.

This building with its lofty rafters is a constantly changing picture dominated during the summer by baskets of pendulous Tuberhybrida begonias. These blossoms form an intensely colorful canopy over displays and arrangements of the various plants grown by the firm, which include aralias, scheffleras, philodendrons, ferns, gesneriads, ornamentals such as the clerodendron, and various non-tuberous begonias. The favorite nontuberous begonia of the public here is B. 'Sophie Cecile' and others that are very frequent choices are B. echinosepala, B. 'Orange Rubra' and B. 'Red Baron'.

The tour paraded along the wide open corridor lined by long rectangular lath and greenhouses. Each house is devoted to one type of plant.

The old lathhouse that traditionally has held the baskets of tuberous begonias in a glorious massing was of particular sentimental value. It reflects the accomplishments of the Antonelli family in perfect-



Photo/Ed Bates

ing the pendulous Tuberhybrida cultivars for which they have become famous.

The tuberous begonia breeding program is now carried out at a different location. Only ready-to-sell plants were being grown in the fields and lathhouses here.

The gesneriads grown by the Antonellis include smithianthas, episcias, miniature African violets, streptocarpus, achimines, and gloxinias.

One acre of growing space is devoted to ferns, of which 30 percent are maidenhair varieties. Although they were not evident at the time, other plants raised for the trade include roses, Easter lilies, ranunculus, and tigridias.

The tour was a pleasing set of experiences from the expanse and variety of plants displayed in the show house at Antonelli's, to the exquisite setting for living with a begonia collection at the Davis home, and to the vista of millions of tuberous begonia blossoms that stretched from our feet in long streamers to the horizon.

A guide to begonia diseases and controls

Robert D. Raabe

I think plant diseases are beautiful because they are part of the balance of nature. As begonia growers, you don't have many diseases to contend with, so your problems aren't as serious as those faced by growers of other plants.

Powdery mildew

Probably the most serious problem you'll have with all begonias is powdery mildew. There are a number of different mildew fungi, and the ones that infect begonias like old foliage or old plants. (Other mildews like new growth and are difficult to control.)

Mildew fungi favor warm days and cool nights. They can germinate in the complete absence of moisture. They also love reduced light intensities and most begonias like that, too.

Triforine (sold as Funginex) is the most effective control, but it isn't as effective once the mildew is formed as it is in preventing it. Benomyl (Benlate) used to be

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a very good control, but it has been used long enough for mildews to develop some resistance to it. This is a problem we have with many fungicides.

Another material is called Milcurb. It's not very available yet, and I think you'll get better control with triforine anyway. Mildew is also controlled by an experimental substance from Eli Lilly called EL222.

So there are three or possibly four powdery mildew fungicides that are effective. What you should do is alternate materials so you don't allow resistance to build up: Spray with benomyl one time and the triforine the next, for example.

There also is karathane (Doo-Spray), which actually eradicates the fungus that's

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there. Use it if mildew is already established. We have seen a little resistance develop to karathane, but not very much.

Damping off

Damping off affects seedlings mostly and a number of different fungi are involved. The seedlings become more resistant as they grow.

There are three ways damping off occurs: 1. The organisms invade the seed before germination—and the seed gets blamed. 2. The fungi invade the young seedling as it is germinating but before it emerges. 3. The seedling collapses at the soil surface. All types are common.

One control is arasan. Put a pinch in the seed packet. But first try it on a small portion of seed—I have found it to be toxic to aster seed.

Another control is to grow your plants in pasteurized—not sterilized—soil. A disease organism will cause trouble in sterilized soil because it has no competition. When you pasteurize soil, you kill only the harmful organisms.

To pasteurize, you bake soil at 140 degrees for 30 minutes—that leaves the good organisms and kills all disease-producing organisms except one virus that doesn't affect begonias anyway.

Heat won't penetrate dry soil, so have it moist enough for planting. Put it 1 to 2 inches thick on a cookie sheet and place a thermometer in it. (Don't let the thermometer touch the pan.) Most oven knobs won't go below 200 degrees, so when the thermometer approaches 140, turn the oven off and crack the door; you can hold it at 140 for a while. Don't go any higher or you'll kill beneficial organisms.

Don't put pasteurized soil in a dirty pot. Washing in water and allowing to air-dry probably is good enough. To be sure, soak the pots for 10-15 minutes in a solution of one part household bleach to nine parts water. Let a pot dry before using it.

You also can drench the seed medium with a broad-spectrum fungicide. That doesn't exist now, though, so I use sev-

eral mixed together; I use Lesan and benomyl—1 gram of Lesan and three-fourths of a gram of benomyl to a gallon of water. I've used this on tuberous begonia seeds with fantastic results. But you do need a gram scale for measuring. This treatment will protect seedlings that aren't infected yet.

Botrytis

With tuberous begonias you may have a problem with botrytis, a fungus present on any dead or decaying matter that produces millions of spores and causes brown tufts to grow outside the tuber.

Botrytis can't attack healthy growing tissues, yet causes lots of trouble on young tuberous begonias. If they have root rot, they are weakened enough so the leaves are not growing actively and botrytis can get started on the leaves.

You will control more botrytis by using the Lesan-benomyl combination than by trying to actually control the botrytis because it is really secondary.

If botrytis really is a problem, use the new material Ornilan, which is very effective and specific against botrytis. It hasn't been registered for begonias, but has for many other ornamental plants. It is useful where people are trying to set seed because flowers aren't actively growing tissues and therefore are susceptible to botrytis.

The developers of Ornilan are experimenting with production of a smoke bomb that you light which coats plants with a fine film for protection.

You can help reduce the amount of botrytis by cleaning up dead material. And since botrytis infects only when there is condensed moisture, keep plants dry.

Water molds

Also involved in the damping off and root rot of seedlings—and older plants—are water molds favored by wet conditions. If you give a plant wet conditions, these molds are opportunists and will cause problems. I've seen water molds infect stems of begonias at the soil line and move up and down the stem, causing complete collapse.

They can cause a very serious storage rot problem in tuberous begonias. In the

tuberous begonia fields around Santa Cruz, if the fall and early winter are mild and there is no frost, there will be lots of tuber rot.

We found that this happens because an abcission layer doesn't form to seal the tuber from the stem. When you dig the tuber, there often is a piece of stem attached and that stem may have the fungus in it. It will go right down into the tuber and rot it.

We experimented and found that, if you know you may have the problem, you can heat-treat the tuber by plunging it into water at 112-115 degrees F. for 10 minutes. This kills the fungus and won't damage the tuber if you put the tuber in cold water immediately afterward.

Water molds also can be controlled with Lesan. This product may be hard to find in small packages. You might have to buy a two-pound bag and split it with friends.

Also effective against water molds is Truban, available in small quantities as an emulsifiable liquid.

An even more effective material was released recently. It's called Subdue. It is not cleared yet for begonias, but this doesn't prevent you from using it because the listing includes many ornamentals and you're not going to eat the plant.

Subdue, unfortunately, is not available in small quantities and it's very expensive —\$150 a gallon. You use it at the rate of only one ounce per 100 gallons of water, so you need to get about 150 neighbors together . . .

Spotted wilt

A virus disease which infects tuberous begonias and may affect other kinds is spotted wilt. It produces yellow blotches and rings on the leaves and plants fail to develop the way they should. There is no control—just get rid of infected plants.

The same virus can be carried over from one year to the next by callaas, chrysanthemums, dahlias, gerberas, and nasturtiums, so, if you are worried about the virus, don't place your begonias near these plants. Spotted wilt is transmitted by thrips.

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The begonia greenhouse: how to create it

Bob Haussler

Everyone can afford a greenhouse. It doesn't have to be expensive—but the more you put into it, the more success you can have growing the kind of begonias that win prizes.

What do begonias need? Generally, the world that begonias favor is a tropical atmosphere. In a ring around the Equator is where they are found—they thrive there because they enjoy the light, the heat, and the moisture.

The greenhouse provides that kind of atmosphere. If you have one that works well, you have one that will produce plants the way they grow in nature, but

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even better. Probably you have seen pictures of plants in the wild—huge plants, yet they don't look like show plants.

We can grow plants even better than nature can because we can protect and keep them out of the elements in a greenhouse.

Whenever anyone thinks of building a greenhouse, he has a wide range of choices. There are free-standing, gothic arch, quonset-type, and lean-to structures. The one I grow begonias in is redwood and fiberglass. It has a sliding glass door on one side and a skylight that opens automatically. It is sort of pyramid shaped.

There are ways to get the skylight or roof vents to open automatically. I use a device that weighs 60 pounds and works at whatever temperature you set it at. It has gases in it that expand when it reaches the set temperature.

Opening my skylight creates a draft that provides a lot of cooling. I use this feature mostly in spring, summer, and fall.

You also can use a smaller, less expensive device that is lighter, but does the

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same job.

Another thing to consider is benches. They should be slatted or made of wire to keep a lot of air flowing across the plants. They shouldn't be solid or you will impede airflow.

Walkways are important because they make it easier to get around without slipping or sliding in mud. Under my benches I have gravel, which is easy to keep clean and drains well.

My greenhouse has the fiberglass walls going all the way to the floor. This maximizes growing space by providing the most light without artificial lighting. But it also cuts down on energy conservation.

My benches have galvanized legs. This system is relatively inexpensive; although it's homemade, it works very well.

Maximizing use of the space you have is very important when you are pouring money into heating and cooling that space. We have plants hanging, plants under the bench, and plants on the floor. You have to be innovative because every greenhouse is a little different than all the others.

Millie Thompson in her book, Begonias, has a good section on how to maximize use of space with shelving and other devices and how to try to keep plants from shading ones under them. In my greenhouse, this requires lights underneath the benches.

Light is the most important ingredient, the others being air, water, and soil. You probably realize that begonias are plants where photosynthesis takes place in the leaves. Begonias reflect green wavelengths of light and that is why they look green. They absorb the red wavelengths and the blue wavelengths. The blue wavelengths help vegetative growth and photosynthesis and the red wavelengths help the development of reproductive structures in plants.

You must reduce the amount of light because begonias in their natural habitat do not grow where they get direct sun. You can reduce the amount of light by putting shadecloth or different material on the greenhouse.

One thing to consider is that during the summer it is good to put the shade on the outside to reduce the amount of heat the greenhouse gains. In the winter it is better to put it on the inside if you can, because you want heat from the sun but not all the sunlight.

To supplement the light that generally occurs in the lower area of the green-house where you want to grow seeds or cuttings, fluorescent lights are the most economical. Use a cool white and a warm white tube. These give off bluer and redder wavelengths, and the combination of the two generally satisfies the needs of the plants.

Air, water, soil—all these things, along with light, are critical. I think in our country from coast to coast we have problems with air. We don't see it affecting our begonias too much unless you live by a freeway or a factory or a power plant.

Air in this country has a tremendous amount of pollutants in it. One of the things that is of concern is sulfur compounds and nitrogen compounds that are emitted into the air from factories and power plants. This creates acid rain and the acid rain in turn affects our water.

If you water your begonias with rainwater you should be concerned with what pH it is. Even in California, where we don't get a lot of pollution except from a freeway, we do have acid rain. It is of great concern in the Sierra Nevada, the Los Angeles basin, and the San Francisco-San Jose area. Air has an effect chemically on both what is in your greenhouse and what gets into your water.

Water is one of the most critical resources that this nation has. It has been treated accordingly. What happens is that it rains on the forest floor, the water runs off, and we reuse it and reuse it. In certain areas, the water we end up using is not of great quality. It picks up lots of salt and possibly some pollutants. All these can affect plants significantly.

There are certain methods you can use to reduce salt in your water. One of the ways that you don't want is to use a water softener. They use ion exchange resins that exchange certain types of salts for other salts; generally, sodium chloride or table salt is used in water softeners—it



Bob and Nancy Haussler of the Sacramento Branch. He gave a seminar on greenhouse growing, while Nancy led an impromptu aerobic dance session at Begoniafest.

removes the sulfates but it puts chloride in instead. So it is not a good idea to use softened water for watering your plants.

Soil—here is the kind of potting mix you should consider if you want to grow begonias to their fullest beauty:

A soil mix is something that your grocery store will sell as house plant potting mix or "garden mix." I use this for my begonias but after I add things to it. It comes under names like Payless Potting Mix or Supersoil; in different parts of the country, the names are different. You probably know that it has a little organic material and it has sand.

I don't add any more sand; it usually has enough. I add leaf mold or some other organic material to create bulk, sphagnum peat, which retains water well and creates some acidity, quartz perlite to make it airy, and vermiculite to retain water.

Then I add other items that provide the trace elements, nitrogen, sulfur, phosphorus, potassium, and calcium that plants need to grow.

Agricultural lime is something I add to reduce the acidity that some of the other ingredients, such as the oak leaf mold and sphagnum peat, add to the soil.

Everyone mixes soil up a little differently, but this recipe works for me.

Containers are critical. We all know and have favorite containers to use. Very shallow containers are good for rhizoma-

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Begonia insect pests and how to handle them

Carlton S. Koehler

You may not believe this, but begonias have far fewer serious insect pests than many other specialty ornamental crops. Try growing roses, fuchsias, or some ferns, and you'll recognize how relatively fortunate you are to be growing begonias.

People vary in how they want to deal with insect pests. Some are very casual; others want to keep their plants free of pests at any price.

I want to give you a range of practices you might consider for each pest I cover. If you're dealing with an established infestation, there may be no good alternative to a chemical pesticide. Yet you

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should recognize that prevention of the infestation ought to be your first line of defense.

Whenever new plants are brought in from an outside source, they ought to be set aside, isolated for at least a couple weeks, then inspected thoroughly for freedom from pests before they're allowed near your other begonias.

Aphids

Aphids come in many sizes and colors—green, pink, nearly black—and occasionally attack begonias. They feed by sucking fluids from the plant, drawing out large quantities of sap. They need carbohydrates and protein, and they get enough protein by drinking far more sap than they would otherwise need.

Then they excrete the excess as honeydew, the clear fluid that collects on the plant and soon turns black because it is attacked by sooty mold fungi. Aphid damage involves debilitating the plant by sucking its sap and smutting the foliage with honeydew that brings on sooty mold.

You can deal with aphids many ways.

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If there are few, dislodge them mechanically by syringing with water. Or consider a recent arrival, insecticidal soap. It is mixed with water and applied by a spray. It's innocuous in the environment, but it can control aphids. The grower must apply it conscientiously—it will control only the aphids that are on the plant at the time it is applied.

This soap is not truly competitive with the traditional insecticides such as malathion, diazinon, and orthene.

There has been interest in such biological controls as ladybird beetles (ladybugs). They are effective predators of aphids and certain other soft-bodied insects. But the University of California recommends against buying and releasing them because they are very likely to leave. The same is true of the praying mantis.

We also have a number of parasitic wasps that feed on aphids. They will bring a measure of biological control, but I know of no commercial source of these wasps.

Mealybugs

Depending on where you are, the mealybug is another occasional or common pest of begonias. The mealybug, like the aphid, feeds by sucking plant sap, excretes honeydew, and results in sooty mold.

But mealybugs lay their eggs in cottony white sacs. In a few weeks, the eggs hatch, and the tiny mealybugs wander off, settle on new plants, and begin feeding.

A few mealybugs can be removed by hand, but if you have a roaring infestation you will have to use malathion or diazinon. Remember, though, that mealybugs commonly lay their eggs not on the plant but on a nearby object such as a pot or under a bench. Mealybugs keep coming back because the eggs hatch a short distance away, undetected, and the new mealybugs find their way back to the plant.

Leafhoppers

Occasional begonia pests, leafhoppers are greenish to brownish wedge-shaped insects about a half-inch long. They

usually feed on leaf undersides, leaving a little bleached-out spot every place they suck. If you have a large infestation, the whole leaf may yellow.

You can achieve fairly good control by syringing with water, spraying with insecticidal soap, or using a conventional insecticide. Because leafhoppers lay their eggs inside plant tissue, you may have to keep after them to kill succeeding generations as they emerge.

Scale insects

Two important groups of scale attack begonias, soft scales and armored or hard scales.

Soft scales feed on stems. A female produces 500 to 1,500 eggs, which hatch into "crawlers." They move away from the parent, settle in a spot, and stay there until they die. They suck sap, excrete honeydew, and blacken parts of the plant with sooty mold.

Armored scales are whitish to grayish, a little smaller than the others, and don't produce honeydew or sooty mold. When they suck sap, however, they also inject toxic saliva. The plant declines and may die.

Both kinds of scale are difficult to control. Discarding an infested plant often is the only effective control. Sometimes it works to prune the plant heavily, then apply malathion or diazinon three or four times at 10-day to 3-week intervals.

Whiteflies

Whiteflies have become a very serious problem in many gardens. If you grow whitefly hosts, you probably will have whiteflies on your begonias, too. These insects are less than 1/16th inch long and have a pair of powdery white wings. When the plant is disturbed, a cloud of flies appears, then settles back onto the plant.

While the adults do little damage, immature whiteflies—they look like small, flattened scale insects—feed by sucking and exude the honeydew that brings on sooty mold.

The greenhouse whitefly has become resistant to most insecticides that used to be effective against it; there are no substitutes yet.

Insecticidal soap sprays can achieve some control if applied every four to five days and with good underleaf coverage. Two commercial agricultural insecticides seem to control whiteflies but are not yet sold for home use.

The parasitic wasp, *Encarsia formosa*, will kill a whitefly by laying eggs in its body. This parasite can bring control in the greenhouse, but is not terribly effective outdoors.

Ladybird beetles (ladybugs), green lacewing larvae, and other natural enemies can help. If you have them in your garden, encourage them as long as you can. Once you begin spraying an insecticide, you probably will kill all the natural enemies.

There's also been some interest in yellow boards coated a sticky substance such as Tanglefoot or 90-weight motor oil. Under greenhouse conditions, these boards can control less than a roaring infestation of whiteflies, but it doesn't work outdoors.

Caterpillars

Several species of caterpillars can be found on begonias. All begin as moths, which lay eggs on the plants to hatch into caterpillars.

Screen windows to keep moths away from indoor plants. Outdoors, use *Bacillus thuringiensis*, a microbal insecticide known as BT and sold under the trade names of Dipel and Thuricide. It poisons caterpillars slowly but is harmless to all other forms of life.

Black vine weevil

We sometimes have trouble with larvae of the black vine weevil. These are night-feeding insects with no wings. They crawl up plants and scallop leaf edges on plants other than begonias. Adults lay their eggs in the soil and their white grubs sometimes burrow into begonia tubers.

The grub is difficult to kill. Your best bet is to use orthene to control the adults.

Thrips

Thrips occasionally will attack begonias. Black to flesh-colored, they are less than 1/16th inch long and slender. There

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This photograph of the plant known until now as B. macdougallii was reproduced in the October 1948 Begonian. Taken in the wild, it purports to show a flower stem about 8½ feet tall. The correct name for this plant now is B. thiemei.

B. thiemei, earlier name for B. macdougallii

Kathleen Burt-Utley University of New Orleans

Before my study of the Central American members of *Begonia* section *Gireoudia* (Kl.) A.DC. (Burt-Utley, 1981), it was necessary to survey the Central American *Begonia* species to confirm or determine their sectional affinities. Among the species was *B. thiemei* C.DC., which was thought to be known only from the type collection made near San Pedro Sula in northwestern Honduras. While the name is obscure, the species it represents is well known horticulturally and relatively well collected.

Most major herbaria in the United States had specimens of *B. thiemei*, masquerading under one or more different names. The only treatment of the Begoniaceae to include *B. thiemei* was Arthur Houghton's (1924) to which he considered this species to belong to section *Ruizopavonia* A.DC. Because it was not reported from Guatemala, Smith and Schubert (1961) did not include *B. thiemei* in their Begoniaceae of Guatemala.

My recent research has revealed that B. thiemei is misplaced in section Ruizo-pavonia and that it is the earliest correct name for B. macdougallii Ziesenhenne.

Casmir de Candolle (1895) described B. thiemei as having herbaceous stems and Kathleen Burt-Utley, Ph.D., belongs to the

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pinnately nerved, clustered leaves which were somewhat oblique and oblong in form. The flowers he described as being two-sepaled (tepaled). While he did not place *B. thiemei* in a section or otherwise suggest affinities with any species, de Candolle's characterization of stems, leaf form and flowers is, at first glance, most consistent with section *Ruizopavonia*. The only other section in Central America with flowers similar to those observed among species in section *Ruizopavonia* is section *Gireoudia*.

With respect to the features C.DC. used in his description, the main distinction between these sections are leaf veination, shape, and orientation. Pinnately nerved leaves are common among species in section Ruizopavonia, but have not been observed in section Gireoudia. However, several species in section Gireoudia have palmately compound leaves with leaflets that are pinnately nerved. Moreover, while many in section Ruizopavonia have blades which appear oblong and slightly oblique. in section Gireoudia, with the exception of B. buseyi Burt-Utley, only those species whose blades are markedly oblique to transverse would be considered oblong.

Houghton (1924) was the first to treat *B. thiemei* formally in section *Ruizopavonia*, probably on the basis of de Candolle's description of its vegetative characters. This was followed by Barkley and Golding (1974). To verify this placement, the only known specimens of *B. thiemei*,



This picture, reproduced from the November 1979 Begonian, provides a close-up view of the plant known for many years as B. macdougallii. The correct name is B. thiemei.

Thieme 5240 at the U.S. National Herbarium and Geneva, were examined. The collection of *B. thiemei* at the U.S. National Herbarium consists of leaf fragments and portions of an inflorescence. From this specimen it was obvious that the leaf fragments were really leaflets of a compound leaf.

This deduction was later confirmed when the type from Geneva which C.DC. used in preparing his description was obtained on loan. One of the sheets contained a whole leaf, unequivocally establishing that the leaves of B. thiemei are palmately compound. Apparently C.DC. did not recognize this as a compound leaf, but rather interpreted the leaflets as a cluster of leaves borne on a stem which is, in fact, the petiole. In Mexico and Central America compound leaves have been observed only in two species in section Gireoudia, B. carolineifolia Regel and B. macdougallii. Because of its leaf form, rhizomatous habit, and floral structure, B. thiemei thus is best treated in section Gireoudia.

Based upon collections of *B. thiemei* from Guatemala which they misidentified as *B. carolineifolia*, Smith and Schubert (1961) included *B. carolineifolia* in the Begoniaceae of Guatemala. Their description reflects the misinterpretation of *B. carolineifolia* and incorporates features of both *B. carolineifolia* and *B. thiemei*. While *B. carolineifolia* and *B. thiemei* share a similar leaf form and are both rhizomatous, they differ from each other in many characters including rhizome orientation, hair structure, pubescence density, stamen size and number and geographical distribution.

There are no known collections of *B. carolineifolia* from Central America. This species is restricted to the states of Oaxaca and Veracruz in Mexico. In contrast, *B. thiemei* has a wider distribution, ranging from Veracruz and Chiapas in southern Mexico through Guatemala and Honduras.

In his treatment of North American Begoniaceae, Houghton (1924) recognized another species in section *Ruizopavonia*, "B. lancifolia" which has never been published. Like the type of B. thiemei at the

U.S. National Herbarium, the specimen Houghton cited, *Watson 417* from the Gray Herbarium, consists of leaf fragments. A careful examination of this specimen revealed that it does not represent an undescribed species, but rather is another example of *B. thiemei*.

In horticultural circles, *B. thiemei* has been known as *B. macdougallii*. Although the type of *B. macdougallii* from the Herbarium Ziesenhenne was not available for my study, a leaf fragment is at the U.S. National Herbarium. This specimen, coupled with Ziesenhenne's original description (Ziesenhenne, 1947), and an early photograph of *B. macdougallii* which appeared in *The Begonian* (1948) closely match *B. thiemei*. Moreover, *Begonia thiemei* has been gathered from the region in Chiapas, Mexico, where Thomas MacDougall originally encountered *B. macdougallii*.

Since there are no significant morphological differences between *B. thiemei* and *B. macdougallii* which justify maintaining them as distinct species, they should be treated as the same species. Because *B. thiemi* was described first, according to the rules of botanical nomenclature (Stafleu, 1978), it must be considered the nomenclaturally correct name for the species widely known as *B. macdougallii*.

Barkley, F. A. and J. Golding. 1974. The Species of the Begoniaceae. Northeastern University, Boston.

Burt-Utley, K. 1981. Systematic Revision of the Central American Species of the Genus Begonia sect. Gireoudia. Ph.D. dissertation, Duke University.

Candolle, C. de. 1895. In J. Donnel Smith, Undescribed Plants from Guatemala and Other Central American Republics. xvi. Bot. Gaz. 20: 538-543.

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Stafleu, F. A. et al., eds. 1978. International Code of Botanical Nomenclature. Bohn, Scheltema & Holkema, Utrecht.

Without author. 1948. Begonia macdougallii. The Begonian 15: 231.

Ziesenhenne, R. 1947. Begonia macdougallii. *The Begonian* 14: 220.

QUESTION BOX/ How can I collect seeds?

Mabel Corwin

Question: I would like to know the proper way to collect seeds from my begonias. I have saved a lot of seed from my plants, but so far I have not been able to get the seeds to germinate. The seeds that I order from the Clayton M. Kelly Seed Fund almost always germinate. I also have ordered rex begonia seed from Mr. Ziesenhenne and have had outstanding success from his seeds. Is there a trick to pollinating the flowers of a begonia plant?

Answer: I'm glad you are successful in growing begonias from seed. I find it very rewarding. I especially like to grow rexes from seed. It is so interesting to watch each new leaf change color and shape.

Some begonias drop their blossoms, but on some the blossom hangs on and the pod dries. If it was not pollinated it will be full of chaff. I think this is what you have. Open the pod over a sheet of white paper. Pick it up and gently tilt the paper. The good seed will usually roll. The chaff is flat and clings to the paper. If you use a magnifying glass you can see the difference. The good seed will look rather round and plump.

I suggest you try pollinating some of your blossoms. I fold back the petals of the male flower and brush the pollen onto the stigma of the female blossom. I tie colored thread around the stem to identify. It is a good idea to keep a notebook where you can record the crosses and the date. If the cross "takes" the petals droop and the ovary begins to swell. If the cross doesn't take the blossom will fall off. It takes a little practice, but is not at all difficult. I feel the best time of day to pollinate is between noon and mid-afternoon when the air is dry.

Question: Rex begonias, after being in my home for about one month, develop

Send questions about begonia growing to Mabel Corwin, 1119 Loma Vista Way, Vista, CA 92083. Include a stamped, self-addressed envelope; you'll get a prompt reply. black edges on the leaves. The old growth turns dead and crinkled. Eventually plants have a dead appearance, even though new growth continues. Since they are not thriving properly, I have to throw them out. This happens winter and summer. I have tried all classic remedies: more water, less water, more light, less light, etc. I have many plants and only rex begonias are a problem. Humidity is no problem. I live in a suburban apartment and there is no excess heat in the winter. I have sprayed and watered with benomy! to no avail.

Answer: Many people have trouble growing rexes indoors. I believe your problem is lack of humidity. Rexes like to grow cool, with high humidity and not too much light.

I suggest you try growing your plants in large terrariums and see if this helps. Putting some damp sphagum moss around the plant will help create humidity. I know several people who grow their rexes successfully this way.

Another way to create humidity around the plant is to set the pot on top of some gravel that is kept wet. The gravel can be placed in a shallow container and the water poured over it. An inverted pot can be placed in the center and the plant set on top of it. Or the plant can be set directly on the gravel. Just be sure the water level isn't high enough to keep the plant constantly wet.

Use a potting mix that drains well. The plants like to be kept moist, but never soggy wet. A weak solution of fertilizer, used often, should keep your plants healthy.

Do you have a cool spot in your shade garden where your rexes could be grown during the summer months? If so, I think they should do better there than indoors.

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ROUND ROBINS/ Tips on tuberous culture

Mary Harbaugh

Continuing with last month's tips from Marvin Kahr, Elkander, Iowa, on tuberous begonia culture, he advises us to dig the tubers in late fall and rub the soil off but do not wash them. Cut off the green stem or top close to the tuber. Dry them for a few days spread out like potatoes. This is usually done in the basement, since it would be cold outdoors at this time. He then puts them in a covered pail or box and stores them in a dark area of the basement away from the light until February. Marvin's basement is heated. The tubers usually live about three or four years and then die.

Shading the greenhouse

The summer season with its brighter sun causes special concerns for green-house growers trying to shade their plants. Joyce Martin of Liberty, Ill. and Mary McClelland, Hastings, Neb., have both had good results using bedsheets. Joyce says everything has done great and Mary

Information about joining a robin—a packet of letters circulated among begonia lovers—is available from Mary Harbaugh, round robin director. Write to her at W2899 Homewood Ave., Shawano, WI 54166. Please include a self-addressed stamped envelope.

finds it to be her favorite method. "The greenhouse really looks crazy but it sure helps with the light problem."

Those who have summered their plants out-of-doors should use special care when bringing them back indoors so they do not bring insect pests with them. Dan Paulson of Chicago, Ill., washes his plants off with a solution of warm water, detergent, and Lysol before returning them to the house. For the larger, sturdier plants he used a sprayer attached to the garden hose and tried to be sure to get both the upper and lower leaf surfaces as well as the pot.

The smaller, more delicate ones including most of the begonias were dipped in a large bucket of the solution. Some of them he rinsed off to make sure there were no harmful effects from the residue. One helpful item proved to be a plastic "shampoo cape." Dan took a scrap piece of plastic sheeting, cut a slit about 12 inches or so halfway through, and slipped that around the main stem. Using this he could dip a plant very easily, quickly and neatly without dumping the potting mix into the solution. He followed this with a dipping and rinsing of the pot.

Growing rexes

If you are growing rexes from seed,



Round Robin Director Mary Harbaugh, flanked by husband Tom and Mary Ellen Taback of Newport News, Va., hosts breakfast for robins at the Santa Cruz convention in September.

120 The Begonian

Mabel Corwin of Vista, Calif., advises patience. They are all green at first and then each new leaf will be a different color and pattern for at least a year before you have a true plant. "One of mine had such a beautiful lavender leaf; I was really thrilled with it. The next leaf was, a very intense red color." Mabel grows her rexes in an area where it is cooler and there is less light. She feels that is definitely what they need.

Many of us find trying to bring rexes through dormancy a tricky proposition. Doug Hahn, Madisonville, Ky., has been successful in carrying rexes through dormancy by removing the withered foliage and covering the pot with a transparent disposible cup or the top of a two-liter soda bottle and setting it under fluorescent lights until new growth appears. He doesn't water until then.

Does insecticidal soap work?

The insecticidal soap introduced this year is drawing some attention from robin members. The use of soap in fighting insect pests is not new. There have been some problems, however, because of the variation in soap formulations and additives which sometimes harmed the plants. Researchers discovered that the substances in soap which actually control insects are the fatty acids. Soaps were than formulated specifically for insect control.

These soaps are a contact spray which means that they must be sprayed directly on the insects to kill them. They are not used as a preventative. The soaps are designed to control aphids, mealybugs, spider mites, whitefly, spittlebugs, earwigs, stinkbugs, rose slugs, crickets, grasshoppers, and other pests but spare many beneficial insects such as honeybees and ladybird beetles.

One of the greatest appeals of a soap spray is its safety. It is made from naturally occurring fats and oils which can be found in our daily diet. It is biodegradable and leaves no residue. On food crops it can be applied up to the day of harvest. Best results are obtained by wetting the entire plant that is infested, including the underside of the leaves. For aphids and mealybugs spray again after two days or when insects return. For mites apply once

weekly for two to three weeks. For whitefly apply at two-week intervals. These' follow-up sprays are important for, if they are not done, new hatchings could gain a foothold.

There is a caution on the label not to use on sweet peas or nasturtiums and to increase the dilution for delicate ferns.

An insect specialist from the University of Wisconsin told me initial research indicates that soap sprays are quite effective when properly used and are most effective on sucking insects.

I hope that any robins who have used insecticidal soap will report on it in their flights, noting the type of insect problem, methods of treatment, and results. Also important would be any plant damage the soaps might have caused. I will report these comments in a future robin column.

New flights

There are flights on Branch Administration, Begonia Identification, Judging, Pacific Northwest Growers, and Southern Growers which can be started if I get a few more requests. Also openings are available in flights for General, Odd/Rare Begonias, Greenhouse, Growing Under Lights, Ferns, Terrariums, Organic Growing, Gesneriads, and Miniature Begonias.

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Joy Porter, director, Clayton M. Kelly Seed Fund

- S-O 3 B. kellermannii: Shrub-like with cupped, peltate, green leaves frosted with white felt. Profuse with pale pink flowers in spring. Curious, but the plant expends so much energy blooming that leaves lose much of the white felt. After a short rest, the distinctive white returns....per pkt 1.00
- S-O 4 *B. epipsila*: Shrub-like species from Brazil with succulent, waxed green leaves, 2 by $3\frac{1}{2}$ inches; red below with brown scurf. Profuse with white flowers in spring. Good for baskets. per pkt .50
- S-O 5 Scott Hoover collection No. 367: Glabrous, upright rhizomatous species; red-flushed petioles and stipules. Medium-size green leaves with indented veins, each marked with brown at margin. White flowers.
- S-O 6 Scott Hoover collection No. 421: Upright rhizome, medium green leaves with dentate, hairy margins. Veins below, prominent, flecked with red and covered with brown hairs. Petioles also red-flecked and woolly.
- S-O 7 Scott Hoover collection No. 431: Tentatively identified as *B. pilifera*, it has upright rhizome, slightly lobed rich green leaves, sparsely red hairy on veins with red spot at petiole attachment when immature. Veins below as well as petiole covered with silky tan hairs looking much like the wet down on a just-hatched bird. White flowers in spring.
- S-O 8 B. franconis: Small, self-seeding species with small, white, pink-tinted flowers. Its everblooming habit—it starts to bloom when 3 inches tall—endears it to some growers while others deplore it as "weedy."

.....per pkt 1.00



Send orders to Joy Porter, 9 Bayberry Lane, Framingham, MA 01701. Include self-addressed, stamped envelope or add 40 cents for padded, hand-cancelled package. Massachusetts residents add 5% sales tax. Checks and money orders should be made payable to: Clayton M. Kelly Seed Fund. Foreign orders: U.S. funds only and add \$1.20 for postage.

The board will meet at 6:15 p.m. Saturday, Nov. 13, in the Regency Room aboard the Queen Mary, Long Beach.

GROWING FROM SEED/Reports from many growers

Joy Porter

During the past year I have had many interesting letters from seed growers. Judy Wallech rescued her seeds from the puppy's mouth; she still had good germination. Marcie Bacon's seed tray was blown off a table on her porch and the mix fell between the cracks, so she crawled under the porch occasionally to see if anything was germinating. No mishap daunts a dedicated seed grower.

In December I started using padded mail-packs, placing the seed envelopes in a plastic film cannister. The majority of growers report much better germination. Orders have gone to Hong Kong, Pakistan, Australia, Japan, and other countries with good results.

I hope to hear results of the *B. masoniana* x *grandis* ssp. *evansiana* cross made by Tom Hixon and offered in the January-February issue of *The Begonian*. I sold a record-breaking 90 packets and was sorry to disappoint some customers when I had no more. Tom sent me a plant which did not go dormant last winter kept under lights. I am sorry my plant has not bloomed as the pictures Tom sent showed male flowers with a small tuft of petals in the center. It reminded me of the flowers of the now-rare old hybrid, *B.* 'Gilsonii'.

I was quite surprised when I saw five

Seed grower Joy Porter of 9 Bayberry Lane, Framingham, MA 01701, is director of Clayton M. Kelly Seed Fund. Write to her about your seed growing experiences. baskets of U008 grown by George Fix Jr. of Dallas. Leaf size ranged from two to five inches with other differences as well. This is why I experience some dread each time I make the seed listing. I never know if a secret partner has made a contribution. Many of you got "U014" as a substitute. It turns out to be a delightful mistake—not U014 at all, but Mabel Corwin's B. 'Christmas Candy', which is U014 x B. 'Glamour Rose Picotee', a beautiful long-leaved semperflorens with the red petioles and persistent stipules of the seed parent and 2-inch glowing scarlet-orange flowers. I also have reports of some flowers with picotee margins.

Scott Hoover tells me that his numbered seeds in the May-June Seed Fund listing—numbers 356, 370 and 384—are not identical but are different species.

Many people are working to supply seed of rare and new-to-cultivation species, and it means "wait until next year" if pollination fails. Please pollinate and send the resulting seed to the Seed Fund. What is "old-hat" to you may be new to someone else. If you want to donate seed, I will send you seed envelopes. You would be amazed at how many seeds manage to escape from tightly folded paper and are irretrievably fastened to the tape used to seal the makeshift envelope. The Seed Fund also needs black-and-white photographs to use on the Seed Fund page.

Keep your letters coming and other than "speed-it-up," let me know how the Clayton M. Kelly Seed Fund can better serve you.

More diseases From page 111

Stem rot

If a plant develops stem rot, keep the area dry. Sometimes you can slow it down by cutting it open and exposing it to the air. You want to try to prevent the rot from getting down into the tuber.

Some people use zirlate for this. It is an oldtime fungicide, and we won't see it around much longer because there are more effective materials. It's not effective against the specific organisms that cause stem rot.

However, if anything works for you, don't let me discourage you. Some of these things serve as psychological crutches. Many people use vitamin B1 in transplanting. It's never been proved scientifically that vitamin B1 does one thing to aid transplanting, but if it works for you, use it.

More begonia greenhouse From page 113

tous begonias, ferns, and hanging begonias, and come in different sizes and shapes. Plastic is good if you have a very light soil mix and things tend to dry out quickly.

You also can get large containers made of wood.

Another kind is made of a fibrous cardboard-like material formed into a hanging basket. Sphagnum moss-lined wire baskets are good for begonias. Hanging plastic pots are good, specially when you don't get to see them all the time. When you hang plants up, they dry out more quickly than expected, and plastic containers contain water better.

You can get a lot of decorative wooden ones. I find these good to grow trailingscandent types and some tuberous types.

Of course, you can use clay. Clay tends to dry out a little faster than wood and plastic, but I really prefer clay if I can get away with it.

Being knowledgeable about automation is probably foremost on a lot of people's minds because it reduces operating expenses and controls the atmosphere in the greenhouse so you won't have to be around all the time.

Automation can be fairly simple and doesn't have to be expensive.

You *could* incorporate a hot tub. Mine is solar heated and the next step is to connect it with a pipe that goes to the greenhouse. With a forced-air fan, I will solar-heat the greenhouse in winter.



In our area it gets down to 30 degrees and the hot tub stays warm; that way, I can exchange the heat from the tub to the greenhouse. You take the heat from atop the water because heat rises.

A natural gas vented heater is enough to heat a greenhouse. I recommend vented heaters because I tried one that isn't vented and I didn't like it. I spent a lot of time in the greenhouse in the evening, and sometimes felt dizzy.

Then you have to consider cooling. In some areas, you can use a swamp cooler. What you do is go out to thrift stores and look for one you can fix up; otherwise, you spend \$300-\$400 for a big one when you could spend just a few bucks.

This works for me because I live in the arid, dry climate of California's Central Valley. The cooler works on the principle that water evaporates, cooling the air that moves through it. We can keep the greenhouse about 20 degrees cooler than the outside air.

If your greenhouse temperature exceeds 80 degrees, I recommend putting a thermometer inside. When it gets over 80 degrees during the warm season, you need some kind of cooling or air exchange system. Eighty degrees is the point at which plant growth starts to trail off.

In a greenhouse you are operating with relative humidity. The humidity need at lower temperatures isn't as great as at higher temperatures. The plants "respire" more rapidly—they lose water through the leaves faster. To combat that, you want to add a lot of moisture to the air. One good way, other than with a swamp cooler, is with a misting machine.

It operates in connection with a humidistat, which turns the machine on when the humidity drops to a preset level. In certain parts of the country, a swamp cooler won't work well anyway, so you would want a mister.

In the greenhouse, you can propagate plants quite readily using lights about the prop box. A mix people often use for this is half-and-half perlite and vermiculite. I have great success with this combination.

You can add a heating mat that turns on and off at whatever temperature you set. It produces bottom heat, a good way to get cuttings to root quickly.

ABS NEWS/ An honor for Millie and Ed Thompson

ABS members Millie and Ed Thompson were named recipients of a special president's citation at the Begoniafest convention banquet Saturday night, Sept. 11, by newly installed president Chuck Anderson.

The award honors the Thompsons for their book, *Begonias: The Complete Reference Guide*. Chuck explained that the Thompsons had been nominated to receive the society's Eva Kenworthy Gray award for literary achievement, but were not eligible because they won the award previously. Neither the Gray award nor the Alfred D. Robinson medal of honor was presented this year.

The citation pays tribute to the Thompsons for "their original vision: a definitive work on *Begonia* to serve the advanced plant scientist and the new hobbyist alike, and for the inspiring success with which they have fulfilled that vision" and for "their unending pursuance of knowledge, dedication to perfection, and sheer determination to get things done, which are an example to us all . . ."

1982-83 officers elected

Margaret Lee of San Diego and Dan Haseltine of Chicago won vice presidencies, the two contested offices, in the 1982-83 election held in August. Along with other incoming officers, they were installed at the Begoniafest banquet Sept. 11 in Santa Cruz.

Election results were:

President—Chuck Anderson, Los Altos, Calif., 180 votes;

President-elect—Bob Ammerman, Vista, Calif., 175 votes;

First vice president—Margaret Lee, 111 votes; Bob Hamm, Wichita Falls, Texas, 89 votes;

Second vice president—Dan Haseltine, 103 votes; Charles Jaros, 92 votes;

Secretary—Deborah Best, San Leandro, Calif., 184 votes;

Treasurer—Bill Scarbrough, El Monte, Calif., 189 votes.

A total of 205 ballots were cast in the election, of which 102 were from Cali-

fornia. The cost of printing and inserting the election card in *The Begonian* was \$269. ABS has about 2,400 members.

Slide library

A new program on "The Development of Tuberous Begonias" is available from the ABS slide library. Narrated by Patrick Worley, it covers development of tuberous plants from original species to Frank Reinelt's Pacific strain. Professional pictures of Pacific strain plants are used in the show.

The slide library is looking for someone to help develop a program on the Capitola National Begonia Festival parade. Help is needed preparing the narration and more 35mm slides are needed to add to the collection donated by Rudy Ziesenhenne.

Contact slide librarian Dan Haseltine. His address is on the inside front cover of the magazine.

In memoriam

Gordon Baker Lloyd

West Coast garden lecturer and radio personality Gordon Baker Lloyd died Aug. 15 in Southern California.

Gordon served as editor of *The Begonian* from October 1954 to September 1955 and again from January to October 1965. Three times he was the banquet speaker at ABS conventions: in 1949, speaking on "Why I Like Begonias"; 1955, "My Begonias and I"; and 1959, "Use of Tropical Flowers."

He is survived by his wife Sassy.

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THE BOARD/ ABS board of directors

July 19, 1982

Treasurer John Ingles reported a June 30 balance of \$5,078.42 in the checking account and \$18,222.64 in savings accounts. The report was accepted for audit.

Secretary Arlene Davis read a letter from Evelyn Isaac, secretary of the former Redondo Area Branch, reporting that the branch's funds were "totally depleted" after paying expenses upon withdrawal from

A letter was read from Southwest Regional Director Bob Hamm requesting a change in dates for the 1984 Dallas ABS convention to April 12-15. The board concurred

Formation of two new branches, the Mac Branch in New Jersey and the Dallas Branch in Dallas, was reported. President Gil Estrada said paperwork is being processed for issurance of charters. Marge Lee, national director of the Alfred D. Rob-

inson Branch, presented a set of ABS constitution and bylaws revisions for second reading. The revi-The revisions were proposed by the Robinson and San Miguel branches. Copies will be available at the convention before a vote is taken at the annual meeting. The board approved the proposed revisions. Bill Scarbrough, national director of the Whittier Branch, offered to duplicate the revisions for distribution at the convention.

Discussion arose about issuance of membership cards annually. The board voted to send cards to every member upon renewal automatically, and agreed to Co-Editor Chuck Anderson's offer to publish a notice in The Begonian advising members without current cards to send self-addressed stamped

envelopes to the membership secretary.

Gil read a proposal from Slide Librarian Ralph
Corwin to raise the rental fee for a slide show from
the current \$5 to \$7.50 to cover increased postage
rates, and to set aside 25 percent of the department's net income for department expenses. The board established rental at \$10 and agreed to the expense

Chuck, on behalf of the Santa Cruz convention committee, announced the gift of 185 copies of the late Alice Clark's book, Begonia Portraits, from Alice's granddaughter, Melissa Lowell. Chuck said Melissa suggested they be sold at the convention. The board decided to permit the ABS Bookstore to sell them at \$10 each, and donated five copies to be used as prizes at the convention. Melissa also donated Alice's set of Begonian back issues, and the board voted to establish them as the editor's set.

1983 Convention Chairman Arlene Davis asked for a \$75 advance from the convention fund to buy as a convention prize the new two-volume Exotica Inter-national. The publisher, Dr. Alfred Byrd Graf, has offered one set for that price instead of the list price

of \$175. The board agreed.

Gil read a letter sent by Ed Bates, who is preparing a catalog of registered cultivars, to Carrie Karegeannes, nomenclature co-director. In it, Ed Karegeannes, nomenclature co-director. proposed to print the first volume, covering the first 300 cultivars, in time for the September convention, if Carrie would complete her review of the manuscript quickly. In a reply read by Gil, Carrie emphasized the need to check the manuscript carefully for accuracy. Nomenclature Co-Director Thelma O'Reilly said Carrie was comparing the manuscript against the original registration forms.

Chuck moved that the board communicate

Carrie and Ed its desire to publish 500 copies of the first 100 cultivars as speedily as possible, and that the text be cleared with the nomenclature department. The board approved.

John Ingles moved to award a life membership to Gil as outgoing president. The board concurred. Chuck asked Gil to leave the room, then moved to allocate \$40 for the customary gift to the outgoing president, to be presented at the convention banquet. The board approved.

Gil returned to the room. He announced the printing of a new supply of life membership cards.

Thelma presented the final draft of her pamphlet

of guidelines for the convention committee. Board

members expressed appreciation for the work involved in collecting the information. The board agreed for the pamphlet to be printed and sold at cost through the ABS Bookstore.

September 12, 1982

The meeting was called to order by President Chuck Anderson at 9:30 a.m., in the Holiday Inn. Santa Cruz, Calif.

Bob Ammerman read the aims and purposes. Chuck called attention to the part stressing friendly contact.

Chuck introduced the list of appointed officers for 1982-83. The appointments were made considering the different geographical areas, in addition to having a quorum in both Northern and Southern California. The list of appointed officers ratified by the board consisted of:

20.10.0104 011	
Back Issue sales.	Bobbie Lovera
Bookstore manager Branch relations director	Robbie Lovern
Propoh relations discates	bobble Lovela
Branch relations director	Lynda Goldsmith
Ballot counting chairman	Marvin Vipond
Classification com. chairman	Mildred Thompson
Canal Francisco Colli. Chairman	wiilurea inompson
Seed Fund director	Joy Porter
Corresponding secretary	Don Englund
Business manager	Gil Estrada
Archiviet	Manu Vinau
Archivist	Mary vipond
Judging chairman	Marge Lee
Members-at-large director	Thelma O'Reilly
Nomenclature director	Carrie Karogoannos
Parliamentarian	Oarrie Kalegeannes
ramamemanan	Joan Coulat
Research director	Tony Croce
Round Robin director	Mary Harbaugh
Slide librarian	Don Hoseltine
Advertising manage	Dali naseitille
Advertising manager	Sue Muller
Public relations director	Patrick Worley
Membership secretary	Flisabeth Savers
Speakers hursey director	Marie Des
Speakers bureau director	Muriei Perz

The board declined to ratify the appointment of Frank Kerin as chairman of the Show Classification and Entires Committee. Chuck also announced the editorial board's earlier appointment of Karen Bar-

editorial board's earner appointment tholomew as editor remains in effect. Daniel Haseltine asked if a board meeting could convention and show. Chuck

answered that it could, provided that it was published in the Begonian and a quorum of officers was present. Dolores Fernandez, librarian, announced that she resigned several months ago. She can continue to vote until a replacement is found.

The minutes of the last board meeting were mailed to the officers, but have not been published in the Begonian. Acceptance will be delayed until the next meeting.

The Board of Directors is required to meet four times a year and Chuck would like to schedule two meetings in Northern California and two in Southern California. After discussion, the board decided to hold dinner meetings on Saturday evenings. Karen Bartholomew asked that the meetings be scheduled soon to give people time to RSVP and to arrange to get to them.

In between quarterly meetings, Chuck said that he intends to invoke preliminary decisions by the Executive Board, as allowed in the bylaws. A ballot will be mailed to the other directors before the decision takes effect, thus allowing the entire board to participate.

The proposed budget for 1982-83 was presented. showing a balanced budget in the black by \$500. The major source of income, membership dues, was projected as 2500 members at \$10 each, with no dues increase necessary.

An additional source of income, Flower Shows and Conventions, was estimated at \$1000. The 1982 Convention looks to clear more than this. Muriel Perz

vention looks to clear more than this. Murier Felz warned that the society cannot depend on this income, since it varies widely.

Chuck noted the Public Relations Director's Expense of \$1000. He intends to change this job from relations with members to a true public relations campaign. The expense will include advertising to the capture of the public to got how members printing postage. the public to get new members, printing, postage,

Please turn to page 129

More notes From page 95

I chose three of the programs—each of which was immensely popular and packed full of useful information-to round out our coverage of the Begoniafest golden anniversary convention in this issue. On page 110, you'll find an adaptation of a talk by Robert Raabe, one of California's foremost experts on plant diseases. Carlton Koehler's talk on insect pests begins on page 114, and ABS member Bob Haussler's seminar on greenhouse growing is excerpted beginning on page 112. I want to acknowledge Chuck for his help preparing these for publication, and for the major contributions he made to the main story about the convention.

Extra copies of the 24-page Begoniafest convention program are available to ABS members who collect souvenirs and ephemera. To cover the cost of mailing and our 50¢ unit cost in printing them, we're asking for a \$1 donation for each booklet ordered. Send to convention chairman Mary Margaret Rafferty (address on inside front cover). Included in the booklet is a list of all past ABS presidents, locations of all past shows, and a picture of ABS members taken at the 1954 convention banquet.

The brochure "14 reasons why you should join the ABS" has been reprinted and copies are available from membership secretary Elisabeth Sayers. Cost to ABS of printing the brochure was 6¢ per copy. Elisabeth will happily accept any donation a branch is able to make when ordering copies.

In this issue we publish an article which informs botanists and ABS members that the name *B. macdougallii* is not valid for the large, compound-leaved rhizomatous begonia so many of us admire and grow. The new name—which really is the plant's older name—it *B. thiemei*.

—K.B.

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ASSOCIATED GROUPS/Visitors always welcome

DESERT BEGONIA BRANCH Mary Church, Pres. 1090 E. Grant Rd., Tucson, AZ 85719 Barbara Rogers, Natl. Dir. California ALFRED D. ROBINSON BRANCH 2nd Tuesday, 10:30 a.m. Homes of members June Rakestraw, Pres. 5458 Avenida Fiesta, La Jolla CA 92037 Margaret Lee, Natl. Dir.
CENTRAL SAN JOAQUIN BRANCH
Mary L. Lane, Pres.
19239 Road 232, Strathmore, CA 93267 Esther Passet, Natl. Dir. EAST BAY BRANCH AST BAY BRANCH
3rd Thursday, 7:45 p.m.
Northbrae Community Church,
Berkeley, Calif.
Milton Watt, Pres.
119 Kenyon Ave.,
Kensington, CA 94708
Helen Myers, Nat'l Dir.

GARDEN GROVE BRANCH
3rd Thursday, 7:30 p.m., New
Community Meeting Center 11300 Stanford, Garden Grove, CA 92643

CA 92643 Jane Walley, Pres., 1341 Nanwood St., La Habra, CA 90631 George Allison, Natl. Dir. GLENDALE BRANCH 2nd Tuesday, 8:00 p.m. Glendale Federal S & L, 401 N. Brand, Glendale, Calif.

Helen Baker, Pres. 1832 N. Ontario St.

1832 N. Ontario St., Burbank, CA 91505 Katharine Alberti, Natl. Dir. LONG BEACH PARENT CHAPTER 2nd Sunday, 1:30 p.m., Great Western S & L 6330 E. Spring St., Long Beach George Ghiotto, Pres. 702 Sunries Blyd Long

George Ghlotto, Pres.
702 Sunrise Blvd., Long
Beach, CA 90806
Florence Hess, Nat'l Dir.
MONTEREY BAY AREA BRANCH
4th Wednesday, 8:00 p.m.
New Monterey Neighborhood

Center Lighthouse and Dickman Sts.,

New Monterey, Calif. New Monterey, Calif.
Raymond Peterson, Pres.
192 Walker Valley Rd.,
Castroville, CA 95012
Jackie Davis, Natl. Dir.
NORTH LONG BEACH BRANCH
2nd Tuesday, 7:30 p.m.
Mercury S&L

4140 Long Beach Blvd., Long Beach Edith Van Landingham, Pres.

G925 Lime Ave., Long Beach, CA 90807 George Ghiotto, Natl. Dir. ORANGE COUNTY BRANCH 2nd Thursday, 7:30 p.m. Fullerton S & L, 2310 E. Lincoln

Ave., Anaheim Barbara Vallejos, Pres.

1021 Cardiff, Anaheim, CA 92806 Sandy Sandoval, Natl. Dir. PALOMAR BRANCH

ALOMAR BRANCH
2nd Thursday, 7:30 p.m.
Glendale Fed'ral Savings & Loan
Katherine Belz, Pres.
2767 High Mead Circle,
Vista, CA 92083
Patrick Worley, Natl. Dir.

This directory appears every other issue. If your listing is incomplete or inaccurate, please notify the secretary immediately and send a copy of your letter to the editors.

RUBIDOUX BRANCH 4th Thursday, 7:30 p.m. West Riverside Memorial Auditorium 4393 Riverview Dr., Rubidoux Claire Husted, Pres. 13580 Indiana, Corona, CA

13580 Indiana, Corona, 91720 R H. Terrell, Natl. Dir. SACRAMENTO BRANCH 3rd Tuesday, 7:45 p.m., Garden Center 3330 McKinley Blvd., Sacramento, Calif. Joan Coulat, Pres. 4111 De Paul Ct. Sacramento, CA 95821 Marvin Vipond, Natl. Dir. SAN FRANCISCO BRANCH 1st Wednesday, 8:00 p.m.,

Garden Center
Golden Gate Park, 9th Avenue and Lincoln Way
Omund Stromswold, Pres.

Omund Stromswold, Pres.
71 Ashton Ave., San Francisco,
CA 94112
Dolores Dupre, Natl. Dir.
SAN GABRIEL VALLEY BRANCH
2nd Tuesday, 7:45 p.m., Los
Angeles State and County Arboretum 301 N. Baldwin Ave., Arcadia, Calif.

Elaine Baxter, Pres. 2333 Trulane, Alhambra, CA 91016 Louise Best, Natl. Dir. SAN MIGUEL BRANCH

1st Wednesday, 7:30 p.m., Casa del Prado, Rm. 104, Balboa Juana Curtis, Pres. 4107 Taos Dr., San Diego,CA 92117

Bob Ammerman, Natl. Dir. SANTA BARBARA BRANCH 4th Saturday, 7:30 p.m. Louise Lowry Davis Recreation Center

1232 De la Vina St. Kathy Morehouse, Pres. 5410 Paseo Orlando, Santa Barbara, CA 93111 Kay Willis, Natl. Dir. SANTA CLARA VALLEY BRANCH

3rd Thursday, 7:45 p.m. Elisabeth Sayers, Pres. 369 Ridge Vista Ave., San Jose, CA 95127

Mary Margaret Rafferty, Natl. Dir THEODOSIA BURR SHEPHERD BRANCH

BRANCH

1st Tuesday, 7:30 p.m., Senior
Citizens Bldg., 420 Santa
Clara St., Ventura, Calif.
Norm Rohn, Pres.
2033 N. Latham,
Camarillo, CA 93010
Mary Stine, Natl. Dir.
WESTCHESTER BRANCH
1st Thursday, 7:30 p.m.
Westchester Women's Club
8020 Alverstone St., Los Angel

8020 Alverstone St., Los Angeles Pat McElderry, Pres. 5137 Inadale Ave., Los Angeles, CA 90043 Millie Simms, Natl. Dir.

WHITTIER BRANCH 1st Thursday, 7:30 p.m., Palm Park Community Center 5703 South Palm Avenue, Whittier Connie Thornburg, Pres. 9535 Nan St.. Pico Rivera, CA 90660 Billy Scarbrough, Natl. Dir.

Connecticut

CONNECTICUT BRANCH 4th Monday, Homes of members Arline Peck, Pres. Eagle Peak Rd., Pascoag, RI Priscilla Beck, Natl. Dir.

District of Columbia Area POTOMAC BRANCH

4th Sunday, 2:00 p.m., Sherwood Hall Library, 1205 Sherwood Hall Lane, Alexandria, VA
Maxine Zinman, Pres.
Rte 1, Box 73, Boyce, VA 22620
Linda Record, Natl. Dir.

Florida

JACKSONVILLE BRANCH 3rd Monday, 7:30 p.m. Agricultural Ctr., 1010 North McDuff Ave. Ed Harrell, Pres. 1628 Broward Rd Jacksonville, FL 32218 Mary Harrell, Natl. Dir. MIAMI BRANCH

4th Tuesday, 8:00 p.m. Simpson Memorial Garden Center

55 South West 17th Road, Miami, Florida Dr. James A. McArthur, Pres. 22175 Miami Ave., Goulds, FL 33170

Charles J. Jaros, Natl. Dir. PALM BEACHES BRANCH PALM BEACHES BRANCH
2nd Monday, Home S & L
Opp. Palm Coast Plaza, W. Palm
Beach, Fla.
April Foster, Pres.
564 Arlington Dr., W. Palm
Beach, FL 33406
Elverna Maley, Natl. Dir.
TAMPA BAY AREA BRANCH
4th Thursday, 7:30 n.m.

AMPA BAY AREA BHANCH
4th Thursday, 7:30 p.m.
Seminole Garden Center,
5800 Central Ave., Tampa
Mary Breit, Pres.
2713 N. B St., Tampa, FL 33609
Marie Van Etten, Natl. Dir.

Illinois GREATER CHICAGO AREA BRANCH

4th Sunday, except Dec.,2 p.m. Oak Park Conservatory 561 Garfield, Oak Park, III. Dan Haseltine, Pres. 6950 W. Nelson St., Chicago, IL 60634 Virginia Beatty, Natl. Dir.

Massachusetts **BUXTON BRANCH**

3rd Saturday, Mass. Bay Community College, Rosemary Norton, Pres. 979 South St., Roslindale, MA 02131 Percy Ehrlich, Natl. Dir.

Minnesota

MINNESOTA BRANCH 2nd Wednesday, 7:30 p.m. Homes of members Gladys Olmsted, Pres. 1840 Eighth St., Elk River, MN 55330 Thelma Adair, Natl. Dir.

New Jersey

ELSA FORT BRANCH

Helen Green, Pres. 2100 Hunter St., Cinnaninson, NJ 08077 Gladys Cooper, Natl. Dir.

New York

EASTERN NEW YORK BRANCH Herbert E. Speanburg, Pres. 75 Swaggertown Rd., Scotia.

NY 12302

HAMPTON BRANCH 2nd Monday, 7:45 p.m., Parrish Memorial Hall, Southampton,

NV Ed Thompson, Pres. 310-A Hill St., Southampton, N.Y. 11968 Mary Burnaford, Natl. Dir. KNICKERBOCKER BRANCH

2nd Tuesday, 7:30 p.m. Horticultural Society of New York

128 West 58th St., New York, N.Y. Gerald Goodman, Pres.

102-35 67th Rd., No. 5K, Forest Hills, NY 11375 Howard Berg, Natl. Dir. LONG ISLAND BRANCH 2nd Wednesday, 8:00 p.m. Planting Fields Arboretum Oyster Bay, Long Island, N.Y. Mrs. Martha Graham, Pres.

55 Duryea Rd., Melville, NY 11746 Marie Donnelly, Natl. Dir.

Ohio

GREATER CINCINNATI BRANCH Verda Stull, Pres

5 Burnham St., Cincinnati, OH 45218 Erich Steiniger, Natl. Dir.

Oklahoma

FRED A. BARKLEY BRANCH

1st Sunday, 2:30 p.m. Huey Long Community Center, Del City, Okla. Merril Calvert, Pres. 11201 Draper, Choctaw, OK 73020 Ruth Wills, Natl. Dir.

Pennsylvania

EDNA STEWART PITTSBURGH BRANCH

3rd Wednesday, 7:30 p.m. Pittsburgh Civic Garden Center Suzanne Colaizzi, Pres. 115 Lillian Rd., Pittsburgh, PA 15237 Frank Kerin, Natl. Dir.

WESTERN PENNSYLVANIA BRANCH

2nd Wednesday, 11 a.m. Ricardo's Restaurant, Butler, Penn. Antonette Ponteri, Pres. 407 Canterbury Trail, Mars, PA 16046

WILLIAM PENN BRANCH

4th Tuesday, noon, Homes of members Mrs. Jacques Leroux, Pres. Dove Lake House, Gladwyne, PA 19035 Mrs. Lancelot Sims, Natl. Dir.

Rhode Island

ROGER WILLIAMS BRANCH 3rd Monday night. Homes of members. Arline Peck, Pres. & Natl. Dir. Eagle Peak Rd., RFD #1, Box 478, Pascoag, RI 02859

Southwest SOUTHWEST REGION

Robert Hamm, Dir 2951 Elliott, Wichita, Falls, TX 76308

Texas **ASTRO BRANCH** Gloria Quinn, Pres. 234 Tallant Dr., Houston TX 77076

COASTAL BEND BEGONIA SOCIETY

Helen Gonzales, Pres. Rt. 1, Box 103, Taft, TX 78390

HOUSTON TEXAS BRANCH 4th Monday, 10:30 a.m., Garden Center, 1500 Herman Dr.,

Houston, Tex. Nancy Blakeman, Pres. 11838 Bayhurst, Houston, TX 77024

Mrs. Grant Herzog, Natl. Dir.

MAE BLANTON BRANCH

4th Wednesday, 10 a.m. Homes of members Mae Blanton, Pres. 118 Wildoak Dr., Lake Dallas, TX 75065 Glennis Crouch, Natl. Dir.

Washington

EASTSIDE BEGONIA BRANCH

4th Wednesday, 7:30 p.m. 590 116th Avenue N.E., Bellevue, Wash. Nola Emrick, Co-Pres. 730 Renton Issaquah Rd. S.E. Issaquah, WA 98027 Evelyn Rathje, Co-Pres. 4638 36th Ave. W., Seattle, WA 98199

SEATTLE BRANCH

3rd Tuesday, 7:30 p.m., Bethany Lutheran Church, 7400 Woodlawn Ave., N.E. Dorothy Williams, Pres. 21519 92nd Ave. W., Edmonds, WA 98020 Phyllis Wright, Natl. Dir.

SOUTH SEATTLE BRANCH

4th Tuesday, 7:30 p.m., Wm. Moshier Field House 430 S. 156th St., Seattle Joanne Slosser, Pres. 16419 3rd Ave., S.W., Seattle, WA 98166 Shel Fisher, Natl. Dir.

More board

From page 126

and telephone calls.

John Ingles suggested that the \$500 income from sales of back issues be removed and that the Bookstore income be changed from \$1500 to \$2000. His reason was that the society must prepare nonprofit statements by law, and back issues are considered assets. The motion was approved by the board.

Chuck proposed changes concerning income from the advertising in the Begonian. Advertisers could buy a "corporate membership" entitling them to

space in the Begonian for a message to the members. The reason is that advertising income is taxable and membership dues are not. Bob Cole was concerned with the flexibility of the new method and that the advertisers can still select the amount of space. The board approved the motion to delete the \$1500 advertising income and to change membership dues from \$25,000 to \$26,500. Dan Haseltine noted that this may affect the Advertising Manager's title and expenses, needing a constitutional amendment.

The amended budget was adopted by the board with \$33,750 in revenues an \$33,293 in expenditures.

There was a discussion concerning the show light-ing at the convention. The consensus was to tell each Show Manager to check the lighting available and to rent equipment, if necessary. Thelma O'Reilly said she will add this suggestion to her Miscellaneous

Notes to Show Managers.
Chuck announced that he would like to appoint a committee to study whether the ABS should set up a system of regions like the Southwest Region. He proposed Bob Hamm as committee chairman. The committee is to study and report on the feasibility of establishing regions and to propose boundaries. The board authorized Chuck to appoint the committee.

The board also approved Chuck's request to create Conservation Committee with Patrick Worley and Scott Hoover as co-chairmen. The committee will investigate and report on the position to be taken by the Society on the tropical areas of the world where

begonias grow natively.

There was a discussion on the cost of mailing membership cards and whether the Society should issue a permanent card. Elisabeth Sayers said that it costs \$45 per month to mail out membership cards. Muriel Perz noted that in her area, a current mem-bership card is useful because it entitles members to privileges with other flower societies and dis-counts at nurseries. Therefore, the board decided to counts at nurseries. Therefore, the board decided to continue issuing an annual membership card, but, to receive one, the member must send a stamped, self-addressed envelope with the renewal. This can also be done on a group basis through the branch. The board approved a motion by Charles Jaros to establish April 25-28 as dates for the 1985 ABS Con-

vention in Miami.

Estrada read a note from Doris Motschman thanking the society for transferring the life mem-bership of her late husband, Glen Motschman, to her.

The board granted an honorary one-year membersip to George McDowell, a member of the old California Begonia Society. The board also granted a \$50 donation to the Research Fund in memory of Alva Graham.

Gil introduced new charters for the Lawnside Re-gional Branch and the Dallas Area Chapter. The board decided not to accept the charters until the names are changed to branches.

Bill Scarborough reported that the Whittier Branch has established a scholarship fund and would like suggestions of worthy people to receive scholarships.

Dan Haseltine noted that the deadline for the New Member Contest is the end of 1982. The meeting was adjourned at 11:05.

BEGONIAN MINI-ADS

Announcing the New EXOTICA 4, Pictorial Cyclopedia of Exotic Plants, by Dr. A. B. Graf; enlarged to 16,300 photos, 405 in color, incl. 813 Begonias; 2,590 pages in 2 volumes. \$175. All-color TROPICA 2, 7,000 photos, incl. 215 Begonias; 1,138 pages. \$115. Booklists gladly sent. ROEHRS, Box 125, E. Rutherford, NJ 07073.

BEGONIAS—new list 45¢, ferns, cacti, violets, pots. ATKINSON'S GH, Rt. 2, Box 28, Morrilton, AR 72110. Special—20 rooted begonias \$15.95 pp.

Begonia and lily catalog—35¢. Leslie & Winkey Woodriff, Fairyland Begonia and Lily Garden, 1100-B Griffith Rd., McKinleyville, CA 95521, Visitors welcome,

BEGONIAS—all types. Illustrated, descriptive catalog featuring over 700 varieties, many rare and unusual. \$1.50. THE THOMPSONS, P.O. Drawer PP. Southampton, N.Y. 11968, 516-283-3237.

THE THOMPSON GREENHOUSE "A Living Museum of Begonias" owned and operated by Millie and Ed Thompson, Over 1400 different species and cultivars of begonias are displayed. While in New York plan to visit. HOURS: 9-12 noon Mon., Wed., Thurs., Sat.; 2-5 p.m. Fri. Other times by appointment. Call The Thompsons at 516-283-3237. LOCATION. Southampton College Campus, Southampton, N.Y. Open all year. No admssion

Mini-ads are \$1 per line per insertion with a minimum of \$4. A line is 38 characters including punctuation and spaces. Payment must accompany order. Send to Susan Muller, advertising manager, 124 St. Charles Aye., San Francisco, CA 94132.

fee. A number of small plants are available for sale.

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Begonias—violets—episcias. Cuttings only. List 50¢. Springtime Gardens, 2212 Hickory, Sulphur, LA 70663.

Violets - Begonias - Episcias Cuttings only. Send 35¢ for list. Wilson's Greenhouse, Route 1 Box 165-4 Ozark, MO 65721

African violets, begonias, gesneriads, terrarium and dish garden minis, cuttings only. Windowsill Gardens, Box 943, Center Moriches, NY 11934. List 35¢.

EXHIBIT MANUAL. Supplement I of THE THOMPSON BEGONIA GUIDE. 2 sets of revision and additional sheets (issued July 1980 and the latest sheets issued August 1982). \$2.50 includes shipping. The Thompsons, P.O. Drawer PP, Southampton, NY 11968

More insect pests From page 115

are two kinds.

Greenhouse thrips feed on the undersides of leaves. Where they feed, they leave bleached-out spots and very tiny, dark, varnish-like spots of excrement. Control these with insecticidal soap or malathion.

Flower thrips feed inside unopened buds or unopened terminals and so are very difficult to control. A systemic insecticide such as orthene may be called for.

Mites

Two different species of mites attack begonias.

The two-spotted spider mite sucks plant juices, leaving bleached out areas where it feeds. Mites produce webbing and can cover a heavily infested plant completely with a web. Control a heavy infestation by syringing with water or spraying with kelthane.

The cyclamen mite is much more seri-

ous because it causes heavy leaf distortion, even on begonias. These mites are much smaller—about 1/50th inch long. Try to control with kelthane; you may end up having to discard the plant.

Snails and slugs

Snails and slugs feed by excising large chunks out of plants. They are mostly nocturnal and they usually return to the same harborage. If you can discover where it is and eliminate it, you will reduce the population.

Commercial baits are popular. The longest-used is metaldehyde, but in shade or on overcast days it can stun without killing, leaving the snail or slug to go back about its work. A better active ingredient is mesurol or a combination of metaldehyde and mesurol.

We have studied various substances as snail barriers and found that ashes and diatomaceous earth will exclude about 75 percent of brown garden snails.

ABS SERVICES

These services are available to all ABS members. For names and addresses of department heads and other officers, see inside front cover. Include a selfaddressed, stamped envelope when you write.

AT-LARGE MEMBERS-Services for members who don't belong to branches are handled by the members-at-large director. Contact her for details. If you are interested in finding a branch or starting one in your area, contact the branch relations director for help.

THE BEGONIAN—The journal of the society publishes how-to articles, scientific information, and ABS news. Articles on a member's personal experiences with begonias are welcomed, as are black-and-white photos of begonias and color slides suitable for use on the cover. Contact the editor.

BEGONIAN BACK ISSUES—Individual copies of The Begonian more than a year old are available from the back issue sales chairman (75 cents). A full year is \$6.50 for any year in the 1940s. \$5 for any year from 1950 through 1980. Back issues less than a year old are ordered from the membership secretary for \$2 each.

BOOKSTORE-Books on begonias and related subjects can be purchased mail-order from the bookstore manager. Contact her for a list of books available. The bookstore also sells reproductions of antique begonia prints and other items.

JUDGING DEPARTMENT—The judging department offers a course by mail with which you can learn to become an accredited begonia show judge (\$8). Also available are a booklet on point scoring (\$1.25), information on fuchsia and fern judging, and other requirements to become a judge. Add \$1 postage and handling to all orders and 6% tax for California residents.

LIBRARY—Books about begonias and gardening may be borrowed by mail from the lending library. Contact the librarian for a list of books and the procedure

NOMENCLATURE - The nomenclature department monitors newly published findings on begonia names as well as handling official international registration of new begonia cultivars. Registrations are published in The Begonian.

QUESTION BOX—Send begonia-growing questions to Mabel Corwin, 1119 Loma Vista Way, Vista, CA 92083. You'll get a prompt answer and Mabel will use questions of general interest in her Begonian column

RESEARCH—The research department conducts projects periodically. The department also has other activities, including the review of requests for ABS backing of outside projects. For details, contact the director.

ROUND ROBINS-Members exchange information about begonias and their culture through a packet of letters which circulates among a small group of growers. There are dozens of these packets—called flights—on many specialized subjects. To join one or more, contact the round robin director.

SEED FUND-The Clayton M. Kelly Seed Fund offers seeds of begonia species and cultivars by mail. New offerings are listed in The Begonian. Donations of seed are encouraged. Please contact the seed fund director

SLIDE LIBRARY-A series of slide shows on begonias and begonia growing can be borrowed by mail for showing at meetings and seminars. New shows are under preparation. Contact the slide librarian for fee information.

SPEAKERS BUREAU—The speakers bureau maintains a directory of speakers on begonias and related subiects. Contact the director.

ANNUAL MEETII September 11, 1982

President Gil Estrada introduced Convention and Show Chairman Mary Margaret Rafferty, who presented show cultural certificates.

Treasurer John Ingles submitted his annual report, showing a checking account balance on July 31, 1982 of \$4,382.16 compared to the August 1, 1981, balance of \$3,911.43, and a savings account total on July 31, 1982, of \$18,516.45 compared to the August 1, 1981, balance of \$9,198.81. In the fiscal year, the society had revenues of \$43,060.06 when \$32,797 had been budgeted, and expenditures of \$43,271.69 when \$30,475 had been budgeted.

The meeting approved amendments to the ABS constitution and bylaws proposed by the San Miguel and Palomar Branches and approved by the board of directors. A mail ballot of members will now take

Pearl Benell, chairman of the ballot counting committee, announced results of the election for 1982-83 officers. Total number of ballots received was 205, about 8 percent of the membership. Chuck Anderson was elected president with 180 votes. Bob Ammerman became president-elect with 175 votes. Margaret Lee won the first vice presidency with 111 votes to Bob Hamm's 89. Dan Haseltine became second vice president with 103 votes to Charles Jaros's 92. Deborah Best was elected secretary with 184 votes, and Bill Scarbrough became treasurer with 189 votes. Of the votes cast, 102 were from California, 103 from other states.

Gil announced that the 1983 convention will be August 25-28 in Riverside, Calif., hosted by the Rubidoux Branch, and the 1984 convention in Dallas, Texas, on April 12-15. Dates for the 1985 convention

in Miami, Fla., are pending.
Gil announced the May 8 death of Alva Graham, a valuable longtime ABS member who won the Herbert Dyckman Award in 1969 and the Eva Kenworthy Gray Award in 1976.

Members were reminded that the Seed Fund requests donations of seed.

Gil asked officers to submit their annual reports to the secretary if they had not done so already.

The meeting was adjourned after 30 minutes.

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