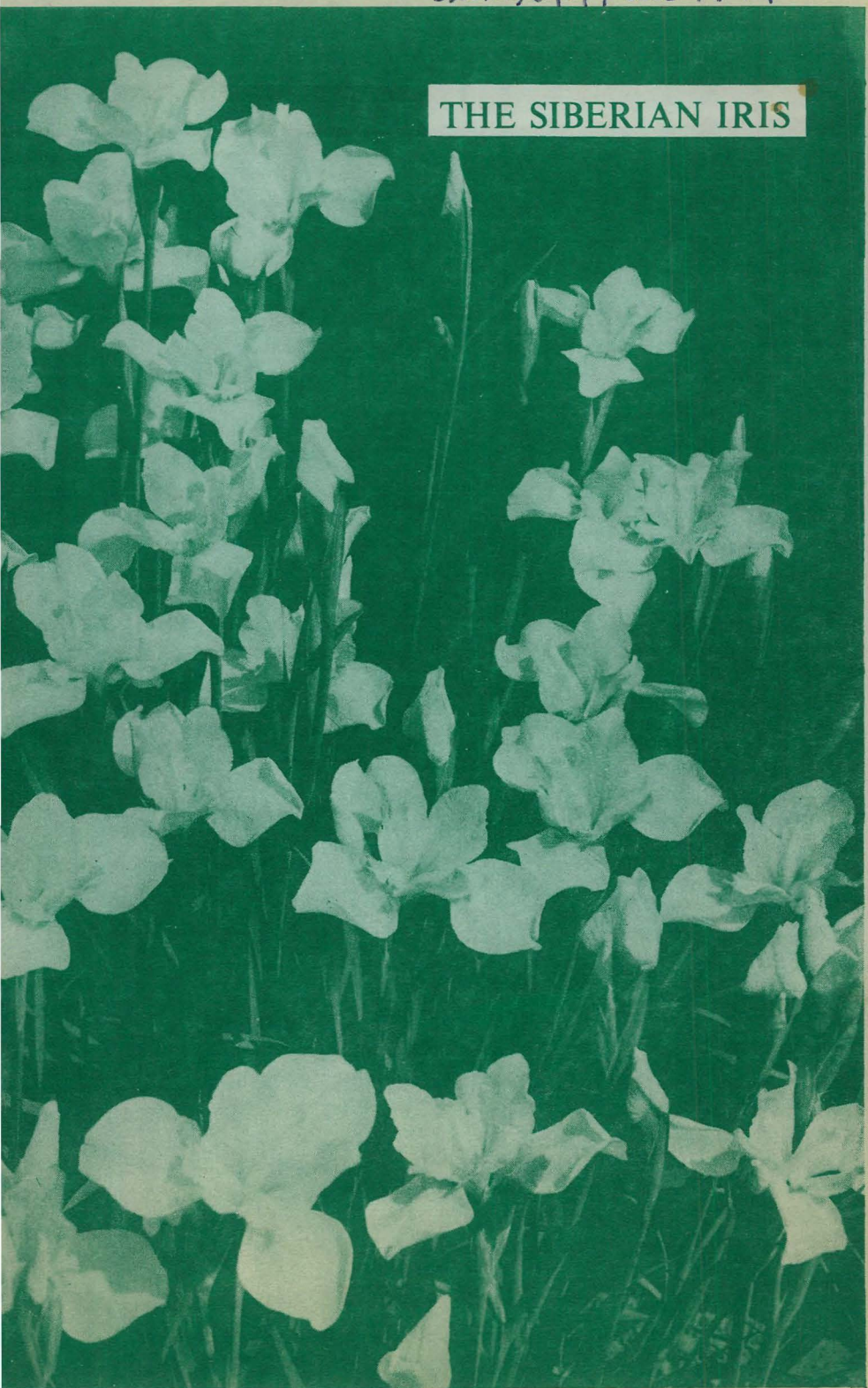
Editor's Copy Fall 1979

THE SIBERIAN IRIS



The Siberian Iris

Volume 4, Number 10 Spring 1979

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The President's Page

Julius Wadekamper

This is my last letter to you as President of the Society of Siberian Irises. It has been a rewarding experience and I enjoyed being able to serve you and the Society.

While a Siberian Iris has still not won the American Dykes Medal, a lot has been accomplished in the Siberian world in the past few years. In my first message to you, in Spring, 1977, I outlined some of my goals as President. I would like to report on them now.

1. A new Members' Handbook. This handbook has been completed. It was written by Dr. Currier McEwen, illustrated by Jean Witt and edited by George Waters. We have received the backing of the AIS Foundation for printing and the copy is ready for the printer. It is truly a marvelous accomplishment and a tribute to Currier McEwen's talent and dedication. In the name of the Society I want to thank Currier, officially, for a splendid job. Jean Witt's illustrations add immensely to the booklet and are very attractive. Thank you, Jean. Lastly, we asked W. George Waters, editor of Pacific Horticulture, to help us with the editing. In spite of a very busy schedule he willingly agreed and his wise and classical advice has given us a first-class publication. Thank you, George. The booklet will have a colored cover and colored illustrations as well as the line drawings.

2. Another goal was to rejuvenate the Display Gardens. Forrest McCord consented to be the chairman and he has done a great job. We now have Display Gardens in every area of the United States and in Canada, and many in countries abroad. The interest in Siberians has increased tremendously, as can be witnessed at any national convention in a garden where Siberians are blooming. There is always a large gathering of enthusiastic admirers. My sincere thanks to Forrest McCord for a job well done.

3. Work on judging standards and practices. Siberian judging schools were held at national conventions and on the local level. Dr. William McGarvey has completed the text for a new Judges' Manual and I am going over the text at the present time.

4. My last goal was to establish more beardless auctions around the country. We did establish one more in Minnesota and it has enriched the treasury considerably. Thanks to all who contributed plants to the auctions. But there should be more.

Other events have taken place during the past years that have significantly affected the society for Siberian Irises. We mourned the passing of a staunch supporter, Ira Wood. A worthy memorial to Ira has been established and you will read more about it in another article. And in late August we lost our Secretary, Ethel Shepherd, whose obituary is in this issue.

The term of office in the Society had been extended from two years to three just before I took office, thereby giving the officers more time to accomplish their goals. I have found this helpful and I am sure it is a good move for the Society.

A Checklist for Siberian Irises was edited by Peg Edwards and made available to those who need it. This incredible amount of work of organizing and printing a checklist filled a gap for those interested in Siberians. Thank you, Peg, for a job well done and greatly appreciated.

A new invitational leaflet was also written and seen through the printing by Peg Edwards. This is intended to promote interest and to facilitate the non-member in joining the Society. Formerly a long letter was necessary; the leaflet eliminated all that work. Thank you again, Peg.

While I am on the subject of Peg's accomplishments I must again mention TSI. Peg has edited our publication for ten years and it is great, and as far as I know the best and most regular of all specialty publications. Thank you, Peg, again.

Congratulations are due to Dr. William McGarvey on winning the 1979 Morgan Award for AUGURY. This is truly a magnificent Siberian of good form and interesting color in the direction of pink and red.

Mr. Steve Varner of Monticello, Illinois, will take over as your new president on January 1, 1980. Congratulations, Steve, and may you have as enriching and rewarding an experience as mine was. You have my pledge of help and support whenever and wherever needed.

Sincerely,

Julius

REPORT OF THE MEETING OF THE BOARD OF DIRECTORS,
HUNTSVILLE MAY 1, 1979

The meeting was called to order at 4 P.M. by President Julius Wadekamper. Those present were Bee Warburton, Betty Wood and Dave Silverberg of Region 19, and Agnes Waite, Dr. Currier McEwen and Peg Edwards came a little late due to transportation delays.

The Treasurer, Gunther Stark , reported a balance of $1860.12. The books were audited by Dorothy Shaffer of Iowa and all was found in good order. In addition, the Society has Certificates of Deposit of a value of $3000.

There was discussion about the possibility of initiating an award in the form of a medal to be given to the winners of Morgan Awards and to others who have given special service to the Society. A proposal was made by Region 19, of which Ira Wood had been a member, that the medal be called the Ira Wood Medal. Mrs. Wood would contribute the cost of making the dies for the medal and Region 19 and this Society would share equally in the cost of casting the medals. Mrs. Wood and Dr. McEwen would have final approval of the design.

The Handbook for Members which Dr. McEwen has been preparing was discussed and draft copies were studied, and it was decided to give the Society's approval to its publication. Dr. McEwen will supervise the printing.

Ethel Shepherd, Secretary

REPORT OF THE GENERAL MEETING OF THE SOCIETY FOR SIBERIAN IRISES,
HUNTSVILLE, MAY 2, 1979

The meeting was called to order by President Wadekamper at 10 A.M. He then introduced those officers and board members who were present and welcomed the many members and guests.

The treasurer reported a bank balance of $1860.12 and Certificates of Deposit to the amount of $3000.

The Handbook for Members was reported as almost ready for printing. It will have color pictures on the front and back covers and possibly on the inside. It appears quite likely that the AIS Foundation will help to defray the costs of printing until the booklet can become self-supporting.

The leaflet, "An Invitation to Join," is available. Anyone present who would like to join is invited to take a copy and fill in the coupon, and anyone who expects to attend a meeting at which

possible new members may be present can obtain copies from Mrs. Edwards (see address on p. 2).

The proposal for an Ira Wood Medal was made by Mr. Silverberg of Region 19 and the matter was explained in some detail. The Board of Directors has recommended that the project be adopted. It was moved, seconded and passed. Mr. Harley Briscoe moved, Emily Varnum seconding, that a copy of the medal be given to past recipients of the Morgan Award who are still living. Harry Kuesel suggested that in such cases, if more than one introduction had received the Morgan Award the Medal be given for the last one to do so.

There is still a vacancy in the list of committee chairmen. We do not have a Publicity Chairman. We need one. Any volunteer was asked to speak to the President after the meeting. Mr. Wadekamper also asked that people in various areas give serious consideration to establishing a beardless iris auction in these parts of the United States and Canada.

Peg Edwards made a plea for everyone to try to write something for TSI. Mr. Briscoe suggested that the 1st Vice President assume the responsibility for getting 2 articles for the publication.

Mr. Steve Varner presented the program. Using slides he gave us a brief history of the Siberian Iris as a cultivated flower, and then showed how it has been improved in grace, flower form and color, branching, and the many decorative types of marking that have been showing up in recent years. He showed a number of his *most recent introductions and some that aren't quite out yet*, after which we saw slides of some of Dr. McEwen's newest ones. BUTTER AND SUGAR was particularly exciting to many of the members who had not yet seen any of the 28-chr. yellow amoenas, and DEAR DIANNE, a tetraploid, nearly as much so. Mr. Varner's AVON, RARE JEWELS, STEVE, FRIENDLY WELCOME, also made strong impressions.

After the program the meeting was adjourned. There were over 70 present.

Ethel Shepherd, Secretary

(It is sad that Ethel could not live to see the above reports, the last things she wrote for our publication; yet if she had lived it would have been in increasing pain. I guess the Lord knows best. I will remember her as the presiding genius of the Region One Apogon Auction's buffet lunch, making sure that all was ready--and always enough for all.

VISITING THE McEWEN GARDEN, 1979

Bee Warburton

Just to be there on the Maine Coast looking out at the open sea is heavenly, and to spend the day with the delightful McEwens is a joy. Time flies by too fast in this unique patch where more different Siberian irises grow than anywhere else on earth.

The path from the house to the main planting areas leads past beds displaying old and new named varieties in profusion, and eager as we are to get to the seedling rows, we cannot rush past. We stop to look at beautiful VELVET RUFFLES, which sometimes produces flowers with, strangely, less velvet or ruffling. We see more of this later in the fields, and oddly enough, a flower on the very velvety diploid TEALWOOD with the same lessened effect.

We remark that McCord's award-winning GRAND JUNCTION has the beginnings of the process at the sides of the style midribs known as "feathering," "fringe," or "fimbriation." The latter being a proper botanical term, we agree on using it. The Siberian styles themselves, in color and in form, are wonderful additions to the beauty of the flowers. The turquoise blue coloring of some is a rarity in the plant world.

We see representative groups of varieties, including our own, from many different hybridizers. We see the variation in flower form that is so hopefully promoted by the Society, and we all deplore our own strong tendency to see only the round, wide, flat flowers of the WHITE SWIRL heritage.

Currier stops to show us damage by a dismaying new insect, unidentified as yet, that drills holes at the base of the stem, causing it to fall over. We hope it is only an incidental, and not the start of another permanent pest.

The path leads us to the break in the hedge that opens into the first of the three fields, set off like huge roofless rooms by rows of native shrubs. In these fields are growing all sorts of wonderful things: species and wide species hybrids. Currier's past introductions lined out for sale, display plants from everywhere, and breeding stock, diploid and tetraploid. There are the frames full of germinating seed, the new seedlings blooming for the first time, and the famous microscope ready for checking pollen. Currier stops to test a row of new seedlings. "This one is 2/4", he says, and "This one is 4/2" (these are chimeras), "and here is one that is 4/4" (a true tetraploid) "all in the same cross!"

In these fields are selected seedlings from recent years, seedlings in his various color lines and lines for various character improvements or variations, diploids to be converted to tetraploids, and tetrapoids up to the fifth generation and beyond, some of them very large and some very small. We learn that flowers of breeding stock cupping plucked stamens in their petals are waiting to be crossed; the stamens are handy for making the reciprocal crosses.

The tape of the garden visit, on which I relied instead of writing notes, proves disappointing because a three-way discussion by McEwen, Vaughn and Warburton quite leaps over any exact description, hitting only the high spots on a comparison basis. The conversations record as somewhat cryptic. We stop first at some tetraploid species of Eckard Berlin's. One *chrysographes* is a tetraploid, another a chimera, both with beautiful dark velvety flowers; another is from ID, delightfully small in size. There is a tetraploid *versicolor*, not very memorable, and several clones of *pseudacorus*. I remark that those Eckard sent me all have large foliage twice as tall as the flower stalks. We find Currier's and it also has huge foliage. We look at the "sib to AMAZEMENT," from Wiswell's garden, and find it pure *pseudacorus*, and its seedlings likewise. They are small forms and some are a fine creamy color. AMAZEMENT itself has never been distributed nor even seen out of the originator's garden, and it no longer exists.

We discuss what I call the "Atoll" pattern, which has the dappling of sun on water in its petals, surrounded by a darker ring. It is a subtle pattern, and some complain that it can't always be seen. I try to explain how well and truly it *is* there, genetically, because in some of its seedlings that bloomed this year, it is monstrously magnified into what I call "Crazy Horse" pattern. This pattern has to be seen to be believed; no Siberian so monstrously hideous could be imagined, unseen.

The pattern is seen even more vaguely than in ATOLL in some other varieties, including Varner's ANN DASCH, where it looks rather as though the signal patch has exploded. We find it later in a few of Currier's irises, including, though faintly, PEG EDWARDS. There is discussion of what the pattern should be called, and most favor "dappled" as being less pejorative than, for instance, "mottling." I prefer "Atoll" myself, naturally.

Color Lines:

One of the greatest delights in visiting Currier's garden year after year is seeing the advances in his color lines. His work is a demonstration of skilled plant breeding, from the line breeding of

diploids, with careful selection, to the conversion of tetraploidy and the continuation of the lines at the new chromosome level. It makes for confusing pedigrees! These lines come in blues, light and dark, reds, yellows, whites and greens; he is working on pink and lavender tetraploids also, but they haven't yet reached the more conspicuous levels of the others.

The blues are improving so fast that he has a hard problem in selecting seedlings for breeding, or which among so many worthies to name. DEAR DELIGHT, which he considers his loveliest to date, is the bluest of blue Siberians and the start of his blue lines; it is a wonderful breeder for true blue coloring. It is small and short, in nice proportion, and breeds, even in tetraploids, for small size. Its seedlings are mostly as light blue as the parent, or lighter, but a few are deeper blue. They are fine blues, but none seems to be an outstanding improvement, and Currier can only select for slight variations, with special emphasis on branching. The row that he saved with much soul-searching is only a tenth of the total. One that he has named SIGNAL BLUE has a distinct blue blaze. Another is in what he calls "gladiolus form" holding like a half-open rose for a day or so before fully opening. We discuss whether or not this form is desirable, but we reach no conclusion. I named one that appeared among my seedlings ROSACE (an architectural ornament), but I'm sure it would be a better flower if it expanded faster.

The yellows from BUTTER AND SUGAR, which is a yellow amoena, are somewhat improved but probably not enough yet to name; but at last there is a tetraploid yellow of good form, which sets seeds unusually well for a chimera and has yellow in the standards as well as the falls.

The greens involve Brummitt's beautiful LIMEHEART, and are getting greener, with more petal surface covered. One, not the best looking, has a green wash all the way down the falls. One with green haft and signal has ONSET in its background. It is a terrific flower on rather short stem and with short foliage. Currier calls these green-whites and he tells us that one of them rebloomed well this year.

Currier considers DEAR DIANNE not only *his* best, but *the* best Siberian to date. It is a tetraploid and it has *the* shape, large, wide, flaring; and velvety in deep blue-violet with narrow white edge. Anybody would agree that it is worthy of the Dykes, if ever we do manage to give it to a non-TB. It has a series of fine relations, some of which show a fascinating new brown tone in their deep blue.

Smaller Sizes:

The reds are getting redder, and some show an interesting green at the throat; these are among the miniatures that are another project of the hybridizer. Currier's interest in these small plants started years ago with LITTLE WHITE, a delightful late bloomer. Among his blues and whites he has seedlings only six to eight inches tall; their foliage is taller than this, but in my opinion that isn't as much a fault as a normal Siberian flower size in such reduced height.

There are enough smaller plants in Currier's garden, including DEAR DELIGHT, for creating a series of "median" Siberians, which would be a welcome innovation--especially as, in my well-known view, many of the new Siberians are becoming far too tall and some of them leggy. They seem to grow lush foliage instead of a wealth of flower scapes, and it seems to me that if they are to be as tall as shrubs, they should show more stalks, and more and larger flowers per stalk.

Rebloomers:

We can no more than mention Currier's rebloomers, of which he has registered a number in the past few years. They are well discussed in his article in the Spring 1979 AIS Bulletin, and as they can't really be judged in the regular season, we gave them little attention on this visit, although they are perhaps the most important of all the work he is doing. They are not reblooming irises in the way that bearded irises rebloom; rather they are repeated or continuous bloomers. The type that he calls "preferential rebloomers" are best in their second blooming. His newest, SOFT BLUE, was introduced in 1979. These may well be the wave of the future.

Plics:

Since the type of Siberian with tall stalks, many small flowers and usually veiny ones--the FLIGHT OF BUTTERFLIES type--was dubbed "plic" by Kevin Vaughn, this type came in for considerable discussion. Kevin remarked (with some chagrin) that his SOOTHSAYER had never looked good after it was introduced, a disappointment that many a hybridizer has experienced, but Currier's very good seedling of this type, having been turned into a tetraploid without spoiling the distinctive type, involved some of Kevin's work with the pattern, so this gave him some comfort.

FORETELL Seedlings:

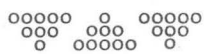
Perhaps the most amazing group of seedlings seen was that from FORETELL crossed with RUFFLED VELVET and with EGO, both crosses giving remarkable results. It seems to me that FORETELL is interesting but far from beautiful, with oddly blended, stripey, yellow falls;

but as a parent, it is a pure winner, giving a diversity of shapes and colorings. Outstanding was a dark red-purple with bold gold signals; its shape is wide and round without a sign of its 40-chromosome parentage. A greenish seedling had yellow in the hafts and fimbriated styles. Another looked like FORETELL only darker, and another was violet with white striations in the falls. All were at least intriguing, and some quite different and attractive enough so that Currier plans to name them. FORETELL is aptly named, indeed!

Random Varietal Notes:
CAESAR'S BROTHER, huge and surprisingly modern, has been a famous ancestor; GATINEAU, as famous an ancestor, is disappointing in comparison. SKYLARK is a nice paler blue, and BLUE CHARM, older than GATINEAU, is a nicer blue.
SHIRLEY POPE, lovely and velvety with bright white signals. We agree that signals should either contribute something or be concealed by the style arms.
DEAR DIANNE is beautifully ruffled, but heavy ruffling may be a fault when the point at which the cells proliferate is too near the signal, making a heavy pleat that twists the wrong way. Some of DEAR DIANNE's sibs illustrate this, though most of them are splendid.
BIG WHITE, Tamburg. Wide, with vivid yellow signals but no branch, is a chimera with the tetraploid type of scape but with diploid pollen.
PEG EDWARDS resulted from seed sent to Currier by Peg, of TURQUOISE CUP on WHITE SWIRL; she made the cross because she felt that TURQUOISE CUP should go into the tetraploid pot (Note: no, I didn't know at the time I made the cross that Currier planned to double the chromosomes; I felt that T.C. was in some way related to the parentage of W.S. and the cross should be investigated--Peg). Currier colchicine-treated the seed and produced a T_1 from which came a T_2 progeny that included the neat blue, PEG EDWARDS.
Cassebeer seedlings 993 and 998 are fine blue still widely grown and definitely should have been named along with CLEAR POND and AUSABLE RIVER.
EARLY BLUEBIRD has for Currier consistently 9 buds, and blooms a full week longer than a sib which is much like it but without the extra branching..
VELVET NIGHT and CONGO DRUMS, compared for dark velvet, are much alike, but VELVET NIGHT is a little bigger.
DREAMING SPIRES, a butone blue, is a charming one by Brummitt; and MOON MOTH, by Lucy Delany of New Zealand, is stunning in darker blue.
ONG'S HAT, by Ira Wood, for whom the new Medal is to be named, is his only introduction. Named for a town in New Jersey, it is a round and flaring white of distinction, which he put out as a cure

for the rather tongue-shaped falls of the earlier tetraploid whites.
SILVER EDGE has given a line of fine dark tetraploids, and the coloring of the edge in some cases is becoming pure gold.

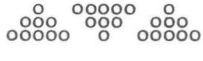
The future is clearly indicated as a fulfillment of many dreams. The Region has beaten a path to this garden. We think it is worth a trip from anywhere.



NEW ZEALAND NOTES--Jean Collins

We grow Siberians very well here in our region as we get about 50 inches of rain a year, and our soil is inclined to be on the acidic side. I have most of the latest of Currier McEwen's and Bill McGarvey's growing. Some of them take a little while to become acclimated--as the seasons are reversed here--but most of them, when they get going, do very well indeed. I have ceased hybridizing Tall Bearded irises, but have continued with the hybridizing of Siberians and Spurias. Last year I had my first amoena Siberian from a cross: FLOATING ISLAND X CAMBRIDGE, white standards and yellow-gold falls. It is its first flowering, so will wait till the coming season to see it again and maybe will be able to assess its value better this second year. It held the color in the falls for several days. I have not been able to compare it with BUTTER AND SUGAR as I acquired this from Currier only last year, and it has not flowered for me yet.

(Note: Jean Collins lives on North Island, not very far from Auckland, and her climate and soil conditions are somewhat different from those of Lucy Delaney who is in South Island.)



A Plea for Pictures:

We would like to be able to include a few pictures in every issue; they do add to the attractiveness of the publication, but more important, they make it more informative. One thing I would particularly like would be a group of shots, paired--a snap of the individual flower and a shot of a good clump of the same flower at peak bloom. If someone could do such a paired shot picturing for several Siberians of differing forms and growth styles--tall, short, flowers just above the foliage and flowers on longer stalks--with good contrast, perhaps by using a white cardboard in back of the plant and choosing darker flowered varieties--what a lovely series of pictures we could run!--Peg.

FLAVONOID GENETICS OF THE 28-CHROMOSOME SIBERIAN IRIS

K. C. Vaughn and T. A. Lyerla, Department of Biology,
Clark University. Worcester, Mass.

Reprinted from Theoretical and Applied Genetics, 1978.

Introduction:

Although Werckmeister (1960, 1969) reported the occurrence of the anthocyanin malvadin in the 40-chromosome Siberian species *Iris chrysographes* Dykes, little or no data on the flavonoids of the cultivars of the 28-chromosome Siberian Iris (series *Sibiricae* subseries *Sibiricae*, Lenz 1976) has been accumulated. Only five major classes of blossom color are known in this group: blue-purple, red, pink, dull white, and clear white. The pigment genetics of this group has been reviewed by Tiffney (1971) and Vaughn (1974) showing that only two loci (*C* and *W*) are involved in the control of anthocyanin production in these color types. Thus, it may be possible to establish the functions of these two loci in the flavonoid pathway by examinations of flavonoids from mutants of known genotype. This paper summarizes the flavonoid data obtained from these mutants.

Materials and Methods:

Plant Material

Iris plants were obtained from a variety of sources, which include the author's own breeding program. Color and genotype of varieties are summarized in Table 1.

Table 1

Cultivar	Class	Genotype	Anthocyanin (s)
"Vaughn G-3"	blue-purple	CC WW	delphanin (1)
"TOWANDA REDFLARE"	red	$c^r c^r$ WW	delphanin, ensatin (2)
"MILDRED PECK"	pink	$c^p c^p$ WW	ensatin
"CAESAR'S GHOST"	dull white	cc WW	ensatin
"SNOW FLARE"	clean white	CC ww	no anthocyanin (3)
"Vaughn TP-1"	blue-purple	C c^r WW	delphanin, ensatin

1. delphanin is 3-p-coumaryl-rutinoside, 5-glucoside of delphinidin;
2. ensatin is 3-p-coumaryl-rutinoside, 5-glucoside of malvadin;
3. swertisin, a C-glycosyl flavone (Asen et al. 1970) found as an intense spot.

Extraction and Chromatography

Pigments were extracted from whole fresh blossoms in equal volumes of 2N HCl with mortar and pestle and stored in the cold (4-9°C) until used. Pigment extracts were spotted approx. ½" from the base of strips or sheets of Kodak MN cellulose (both with and without

fluorescent indicator) with extra fine capillary pipets. Chromatograms were run by ascent in one dimension in either BAW (4 parts 1-butanol: 1 part glacial acetic acid: 5 parts H_2O, upper phase, v/v. prepared within three hours of its use) or 15% HAc in H_2O (by volume) and in two dimensions in the same two solvents. Chromatographic chambers were allowed to saturate before chromatograms were run.

Resultant chromatograms were first viewed in visible light and long-wave U.V. and then fumed over NH3 vapor and viewed in both visible light and long-wave U.V. again.

Reference compounds were obtained from the following Iris cultivars: "FLORIDOR," which contains floridorin, tulipanin, mangiferin and irigenin (Werckmeister, et al., 1966); a Japanese Iris cultivar which contains ensatin (Takeda and Hayashi, 1964); "BLUE RIBBON," which contains delphanin, swertisin, and several other flavones (Asen, et al., 1970). Each was co-chromatographed with the Siberian Iris pigments for comparison.

Results and Discussion:

The distribution of anthocyanins as found in the 28-chromosome Siberian Iris is summarized in Table 1. At least 10 chromatograms were run of each genotype and results were consistent in all cases.

It is interesting to note that all of the mutations at the *C* locus (Vaughn, 1974) have the malvidin glycoside ensatin, which may indicate that the *C* locus is responsible for the methylation of delphinidin to malvadin (Werckmeister, 1960). Although phenotypically the c^r gene behaves as a Mendelian recessive (Tiffney, 1971; Vaughn, 1974), in the heterozygous condition Cc^r both delphinian and ensatin are produced (Table 1). Thus the gene may be more correctly written C^R to indicate condominance, at least at the molecular level, with *C*. Tiffney (1971) had reported that individuals of $C\ c^p$ genotype are more blue-lavender than *CC* individuals, inferring a presence of ensatin, and indicating that c^p may also behave as a condominant. The *Cc* combination has not been sufficiently tested to comment on at this time.

In comparison with other types of Iris, the 28-chromosome Siberians have a very small number of other flavonoids present (Vaughn, 1976). Although swertisin (Asen, et al., 1970) was found in "Vaughn G-3" and "SNOW FLARE" and a luteolin glycoside in both "MILDRED PECK" and CAESAR'S GHOST," no other co-pigment molecules were found on the chromatograms (Vaughn, 1976).

Homozygous *ww* individuals seem to have a block in the anthocyanin pathway so that flavones are produced in excess (Vaughn, 1976).

Oddly, the same C-glycosyl flavone (swertisin) produced in the bulbous *I. tingitana* Boiss. and Reut. cv. "BLUE RIBBON" (Asen, et al., 1970) is found in these rhizomatous Siberian Iris mutants.

The recent decision of Lenz (1976) to retain the 28- and 48-chromosome Siberian Irises in a single series is further substantiated by the finding of a malvadin glycoside in a "red" variety of each group (Werckmeister, 1960, 1969). A thorough review of the flavonoids of the 40-chromosome Siberian Irises should further aid in substantiating or negating Lenz' argument.

Summary:

A chromatographic survey of flavonoids in the various flower color mutants of the 28-chromosome Siberian Iris (series *Sibiricae* subseries *Sibiricae*) was conducted using mutants of known genotype (Vaughn, 1974). Mutants at the *C* locus contain the malvadin glycoside ensatin, indicating that this gene locus may control methylation of delphinidin. Clear white, a mutation at the *W* locus, results in the production of flavones in excess.

Acknowledgement:

Much of this work was completed at Clark University by the senior author as part of the honors program in biology, Department of Biology, Clark University, 1975-1976. We thank Dr. Karen Erickson, Department of Chemistry, Clark University, for her advice and encouragement during the course of this investigation, and Mrs. F. W. Warburton and Dr. Sarah Tiffney for their helpful suggestions, comments and plant material.

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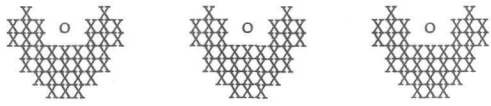
(Our thanks to Kevin for letting us reprint this. I am sure it will be of use to hybridizers.)



A REPORT FROM SOUTHERN CALIFORNIA
Kathleen Frey

For the last 20 years I've grown a few Siberians, all of them older ones--CAESAR'S BROTHER, TURQUOISE CUP, TUNKHANNOK, MOON SPRITE, and BLUE BRILLIANT, to name a few. I've tried to grow WHITE SWIRL on three different occasions, and each time it disappeared, quickly and quietly.

So when we moved to a new location in Riverside about two and a half years ago, I added a few newer ones--EWEN, STEVE, VI LUIHN, DREAMING YELLOW, and RUFFLED VELVET among them. Six months after they were planted, the bloom season arrived and, of course, there was no bloom on the Siberians. I'd expected none, but was pleased to see that all of them were thriving, including WHITE SWIRL. In 1976 about half of them bloomed, and my old friend, WHITE SWIRL, although it didn't bloom, was still with me. All of the Siberians bloomed low last year, probably because the winter had been unusually mild.

Then came 1979 with its better than usual tall bearded bloom season. I think each and every individual plant bloomed. About the third week in April, the first Siberians began to appear. EWEN had multiplied into a huge clump, leading me to speculate that the tets may be more vigorous. It was covered with tall bloom stalks with nice fat blooms, a nice prelude to the AIS Convention in Huntsville.

To my delight there were lots of the newer Siberians in the convention gardens. Dr. McGarvey-s pink-toned AUGURY and PINK HAZE are on my "must have" list, as well as some of Dr. McEwen's and Steve Varner's new ones. When I returned home, EWEN was still covered with bloom, and STEVE, VI LUIHN, RUFFLED VELVET and the others were blooming much taller than the year before. I liked BUTTER AND SUGAR, a new diploid of Dr. McEwen's, as it held its yellow color in our hot sun. Best of all, my good friend WHITE SWIRL actually produced three bloomstalks.

Riverside is borderline desert country, located about 50 miles east of Los Angeles and 50 miles west of Palm Springs. Our annual rainfall is about 11 inches, but in the almost 30 years we've lived in Riverside, it has usually been less than that. However, the last two years have been very unusual in that we've had about 20 inches each year. The summers are hot and dry with temperatures sometimes up to 120°F. Winters are mild, with an occasional dip of the thermometer below freezing to the mid 20's for a night or two, in December and January. Last winter we had several of these cold spells, which sent the citrus growers out into their groves in the middle of the night to activate the wind machines. Thank goodness they no longer use those dreadful smudge pots that caused all of us to reach for our paint brushes when spring arrived. We live in what is known locally as the "banana belt" because the citrus and avocado groves here have not been touched by the freezes that have devastated these crops in other areas. Anyway, as I dashed our one night to cover our newly planted avocado trees (young trees are very susceptible to temperatures below 32°F.), I briefly gave thought to the Siberians, thinking that with a name like that they should appreciate the colder weather. And indeed they did. Without exception, each and every clump produced some bloom, with all bloomstalks taller than last year.

As for fertilizers, I use whatever is on hand. I thought last year that climbing roses might look nice on our rather stark fences that seemed to stretch in every direction. Before I got through, I'd planted 300 rosebushes, only 15 of them climbers. Therefore, the irises, roses, and daylilies can't be choosey, and indeed they seem to be happy with whatever is tossed their way.

Because we've had so much (for us) natural rainfall the last two years it is hard to judge whether the natural alkalinity of our soil is objected to by the Siberians. The summers have been business as usual, i.e., good and hot with no rain. We use Colorado River water to supplement our water supply, and that is known to be quite alkaline. The Siberians, in beds beside the lawn, have good drainage and receive the same watering the lawn gets--a lot in summer. Now in late May I'm looking forward to next year's bloom, to see if WHITE SWIRL is still my good friend.

THE IRA WOOD MEMORIAL MEDAL
Julius Wadekamper

The Board of Directors and the membership of the Society for Siberian Irises are pleased to join Region 19 of the American Iris Society and Betty Wood, in announcing the Ira Wood Memorial Medal.

The preparation of the dies for the three-inch medal is being supervised by Mrs. Wood and Mr. Dave Silverberg of Region 19.

This truly magnificent medal will be presented each year to the winner of the Morgan Award. On a motion made by Harley Briscoe, seconded by Emily Varnum, the membership elected to present the medal to all living past winners of the Morgan Award. In the event that one person has won several Morgan Awards, one medal will be presented but all his award winning irises and their year will be engraved on the reverse side of the medal.

The medal will be a raised relief of Siberian irises. It will be jointly sponsored by Betty Wood, Region 19, and our Society.

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The picture adjacent is of Ira Wood hybridizing his Siberians. Betty wrote that Ira had been getting some fine seedlings but was very critical of them. His only introduction was ONG'S HAT, because he had been amused by this name of a New Jersey town. The plant came from a pod on WHITE SWIRL that he collected in 1970. After several years of observing the plant, which consistently gave white seedlings of WHITE SWIRL form and which had ample good pollen, he felt it was too useful to hybridizers, not to be made available. So it was named.

IN MEMORIAM: ETHEL B. SHEPHERD

We are grieved to report the death of our dear friend, Ethel B. Shepherd, Secretary of the Society for Siberian Irises, on August 15, 1979, after an illness of two months. Ethel was a woman of great integrity and courage, and when she learned that she wouldn't recover, she set stoically about putting in order all the affairs she had undertaken for various organizations including several iris societies for which she served as secretary, treasurer or membership chairman. Her greatest wish was to save the beautiful plants growing in her magnificent garden from being plowed under, and she lay by the window watching her friends dig her special favorites, the hemerocallis and the irises. We will sadly miss her friendship and her cheerful competence in so many areas. The Society offers its sympathy to her daughter, her three sons, and her eleven grandchildren.

Bee Warburton

Back Talk

Peg Edwards

As I was starting to write these last paragraphs the mailman came with a letter from Julius, bringing good news indeed. Auction reports! From the New England Auction Gunther reported that the net receipts came to $375, and Bee in a note to me mentioned that while the crowd was not as large--17 or 18 bidders as compared to the usual 25-30, the bidding was, if anything, more enthusiastic; unfortunately, the gas situation kept quite a few of the regulars away--including myself. I missed the fun, and my husband missed that delicious food, but we felt we couldn't risk being stranded somewhere in Yankeeland without no gas available till the next day. Now comes word from Julius that there was an auction in Minnesota which brought us $257.50, and he enclosed a letter from Lila Howland, which had two checks from an auction in Michigan--they went to Gunther--announcing that the group had decided to split half of this year's profits between us and the Japanese Iris Society. Our share came to $48.50 and 436.75! So our total receipts from auctions this year came to $1,117.75. Wonderful!

Mrs. Howland's letter explains that in 1974 or '75 the Iris Connoisseurs of Michigan decided to help raise funds for Region 6 in preparation for the 1976 Convention at Lansing. They decided to carry on with using the proceeds to help for other purposes in the iris world. This year we were beneficiaries. Bless their kind hearts, and I know you join me in hoping that they get twice as much fun out of it as they put work into it.
Thank you, Connoisseurs!

Now I must apologize for this issue being a week or ten days later than it otherwise would have been. We had new siding put on the house to help cut down the fuel bills--the job is almost done--and the noise of the hammering was such that I (no typist) couldn't concentrate enough to get this even approximately readable. There were times when it sounded as though a wrecking crew with mallets was trying to knock the house down! Today it is raining so I'm trying to finish the typing before they start again in the morning. I'll be glad when it is all done and all we have to do is put all the fragile things back on the shelves along the walls. The last few days the non-fragile stuff has been bouncing around and even slipping off the shelves. I'm glad my flower-arranging containers and figurines are safe; they represent 25 years of collecting!

As you have read in earlier pages, we now have an invitational leaflet available in case you are going to an iris meeting and would like to try recruiting more members. If you will send me an envelope, at least 4½ by 9½ inches, addressed to yourself, with 28¢ stamps on it, I'll send it back with half a dozen leaflets.

One thing I have mentioned in the past, but which seems to need repeating, is: PLEASE, if you move, send your new address to me as well as to AIS and to our Society. This publication is mailed third class, and that means it will not be forwarded to your new address, even if you have only moved to the next street. Every time we get an address correction card from the Post Office it comes to 25¢, and sometimes the Post Office forgets to send it; then the first I know is either when I get a letter of complaint or when the next batch of renewals comes in from our Treasurer or our Secretary. This could be a couple of months later.

Has your weather been awful this year? Ours has, and I hear from other parts of the continent that it's been pretty awful almost everywhere. We even had the charming combination of a small drought with mildew forming on walls and furniture; for over 6 weeks we had temperatures in the high 80's and the 90's with humidity almost as high as the thermometer, and during this spell we went two weeks without rain. And before the heat set in, we had chilly weather--blankets at night on July 4th!--and back under blankets again before Labor Day. S'pose there is anything in the talk of a new Ice Age? I guess we'll just have to do what the Dodgers fans (Brooklyn Dodgers, that is) used to do: just say, "Wait till next year," and hope.

Pag—

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