

THE MEDIANITE

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EDITOR'S PATCH

Working on this special Table Iris Edition with our guest-editor for this issue, Jean Witt, has been a most rewarding experience. Anything worth printing about Table Irises that Jean doesn't know right now, she is in process of finding out. Her interest originated through genetic studies of the diploid irises. She recently introduced her first "fit" in the class, Ice Fairy; is our Director for MTB Robins and Chairman of the AIS Miniature Tall Bearded Division, and has been for a number of years Medianite Editor for MTBs. We think her coverage of the class has been outstanding in the past; in this issue she hoped to sum up all that is presently known into an issue definitive enough to be given as a "WhatEvery" to new robin applicants. We feel that she has succeeded; in fact, she has presented just about every approach to the problem of our MTBs (for problem they are) except that of abolishing the class entirely, a solution which has its proponents. But then, we also have quite vocal members who are in favor of abolishing our Intermediates or our Border Irises.

During the discussion we learned a few important things, one of which is that our ideas of measuring differed, and thus our opinion of the validity of the present standards. Jean has explained some of these differences on page 52. We had always assumed that the width of the flower was measured as the diameter of a circle touching the fall tips, whereas Jean has proposed a much simpler tip to tip measurement. However, a flower measuring 3 1/2 inches by diameter measures only 3 inches tip to tip, a considerable difference in a sum of 6 inches combined height and width. Then, we had always assumed that the measurement of pencil thickness or 1/4 inch was the measurement at the base or thickest portion of the stalk. We find that Jean measures below the lowest branch. As some stalks thicken rapidly toward the base, this also makes a considerable difference in standards which are expressed in numbers.

We haven't settled some of these problems, and perhaps never will; the important thing is that during our most interesting discussion, we each independently discovered the basis for the continued appeal of this type, and that is, man's own ambivalence toward nature. The truth is that we all love the wildlings even while we are destroying their wildness. We have bred the other bearded classes to all sorts of perfections; this one only resists us. We have written into our rules for the class safeguards against betraying the grace and airiness of the natural; now we are all trying to impose upon these children of nature some of the manners of civilization. If we succeed too well we will have destroyed the class. And now, with great pleasure, I turn these pages over to Jean.

INTRODUCTION

Miniature Tall Bearded Iris history has been well covered in AIS Bulletins. In this special issue of the Medianite we present a peek at the more distant past, a picture of the present, and our hopes for the future of our favorite class of Irises. Slender derivatives of the diploid tall bearded species have been around for a long time, as Gerard's illustration attests. We also give you a glimpse of a few of them in the wild, plus a note on Lémon who is credited with transforming the Iris from a dooryard plant to a garden flower. His ubiquitous Honorabile is with us yet (of which more later).

When Alice White began her first Table Iris Robin in 1952, interest in the class had all but ceased to exist. Presently, our Round Robin membership is around 50, but only part of these people are also MIS members. The interim checklist summarizes the current status of MTB classification. It still contains some questionable inclusions, but it is expected that the field will be narrowed further in the future when suitable new introductions become available in some of the color classes.

The sterility barrier which gave us so much trouble early in our program has largely been circumvented. Improvement in form has been easier to achieve than the age of our parental stock might indicate. It has been harder to break out of the rut of limited color range. The extensive summary on color is presented in the hope that it will be of assistance to our breeders.

Our members are busy trying some of the species materials, and initial results indicate that several will be valuable. We hope that *I. illyrica* will give us some really smooth blues of improved form. *I. reginae*, the original "one man's weed is another man's treasure," passes on its thin stems and numerous buds. Diploid dwarfs--*I. mellita*, *I. bosniaca*, and *I. attica* are being worked into the program. The large numbers of almost-MTB which we have raised are turning out to be good parents. We hope the next two or three generations will produce more MTB suitable for registration. So far, no tetraploid variety has made the grade as true MTB, due to poor understanding of the stringent requirements of our class: what looks small to a breeder of tetraploid TB usually turns out to be only about half small enough. However, tetraploid true MTB are definitely in the offing from the gardens of our MTB Robin members.

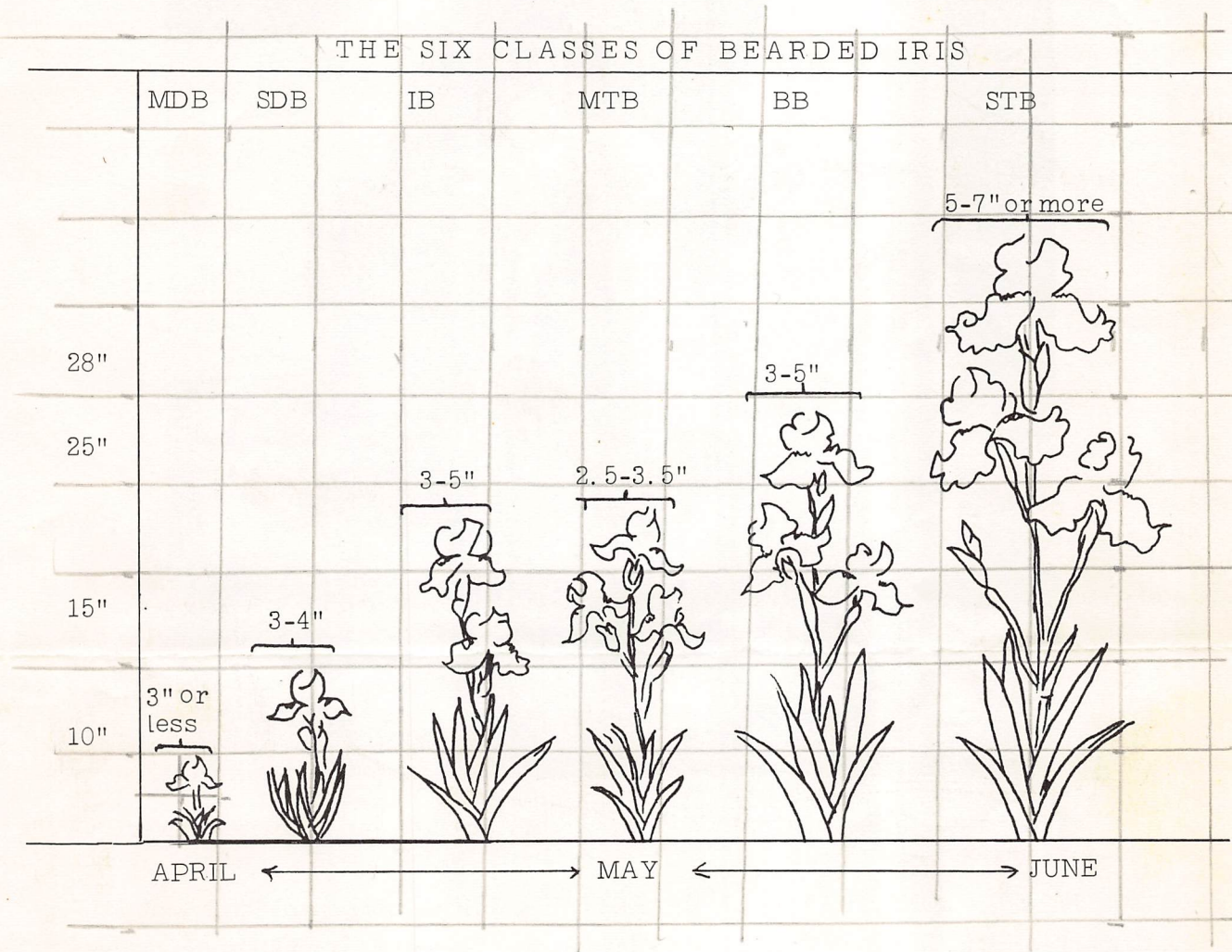
Regional variation has made it very difficult to define our class precisely, but progress is being made here, too. Our new bed at Kingwood Center is expected to be of great help with this. If the accounts of our members seem less than unanimous on all points, bear with us--neither plants nor people lend themselves to being stuffed into rigid categories.

We are fairly well agreed that 15-25 inches is the proper height, and that a really thin stem is 1/8 to 3/16 inch in diameter under the terminal flowers, with gradual increase allowed toward the base. However, we are finding that flower size is so tied in with flower form that our current definition of height-plus-width-to-equal-six-inches may be in need of re-examination.

There are those who, looking at the lagging number of our registrations compared to other classes of Medians, are inclined to wonder why we bother. We can give you at least two reasons: (1) we are convinced that there is a place for our type of Irises. Word reached our ears recently that judges had expressed disappointment that so few small irises and species were used in

the decorative sections of shows--MTB help meet this need. (2) plain orneriness--we believe our breeding problems can be licked and that we are well on our way to achieving success.

Finally, if it bothers you that we use MTB and TI indiscriminantly--well, MTB is fine for the typewriter, but TI comes easier to the tongue--when we talk about them we still say Table Irises. We are grateful to Bee for giving us the opportunity for this special MTB issue, and we hope you will enjoy it.



SOME STATISTICS

J. Arthur Nelson in his Exhibition Committee Report in AIS Bulletin 175:56, 1964, says that there is a trend toward an increasing number of shows with more than one section, and also an increasing number of displays of species and native irises, "indicating a growing interest in these Iris." This undoubtedly reflects the vast increase in the number of other-than-TB registrations, which in 1963 climbed to nearly one out of every three irises registered. Medianites are doing their share to see that these trends continue.

In 1962 section certificates were awarded to 37 sections other than TB in 14 cities (121 shows reporting). In 1963, there were 105 in 33 cities (113 show reports). In 1964, it had climbed to 132 in 41 cities (127 show reports).

Miniature Tall Bearded Irises are sharing in this increased interest. During 1964 12 section certificates were awarded to exhibitors of MTB, as opposed to 2 in 1963 and 5 in 1962. Furthermore, 9 of these 12 people are not members of our MTB Round Robin program--we are delighted that the increased interest extends beyond our "inner core."



Proof of the Indestructibility and Universal Appeal of our Favorite Flower

INTERIM MINIATURE TALL BEARDED IRIS CHECKLIST, REVISED 1965

Unmarked, o.k. in most climates; # too large some places; * too small some places; lower case, newer things, evaluation incomplete.

Plicata

ANGELITA, lavender on white
 DESERTQUAIL (Roberts '58) cream ground
 First Time (Welch 63) yellow and white ground
 Mockingbird (Roberts 62) white and purple
 Pixakeet (Roberts 62) blue and white
 * PIXIE, yellow ground
 SANDYSON (A. White 53) cream and lavender
 WIDGET, lavender on white

Blues

BLUE MOUSE, light gray-blue
 BUNTING, light blue
 # CHEWINK, light blue
 # ELFIN BLUE (Suiter 58) medium blue

FAIRY FLO (G. Rees 52) medium blue
 TID BIT, lavender blue
 TOM TIT, dark blue

Orchid Pink

TWO FOR TEA

White

CLARE LOUISE (Dunderman 61)
 DAYSTAR, orange beard
 LIMBER LASSIE (Rundlett 57)
 PEWEE

Yellow

KINGLET
 MRS. NEUBRONNER (mixed up with Gold Imperial which is #; would like to find the real thing.)

QUIENSABE, pale yellow

SHERWIN-WRIGHT

SISKIN
 SMARTY PANTS, red veins
 Topsy Turvy (Welch 63) yellow reverse bitone

WARBLER

YELLOW TOM TIT

Variegata

GAJUS, lemon yellow, wine veins on white; identity in doubt; this may be Gracchus.

* HOBO

HONORABLE

Randi Lynn (D. Sturdevant 63) orange & white, red veins.

SANS SOUCI

ZINGARA, orange and purple.

Amoena

Blue Thread (D. Sturdevant 63)
white striped blue
Ice Fairy (Witt 62) white and
light blue

* PLAYBOY

Neglecta

EVERSWEET (Kavan for Sass 56)
LITTLE HELEN (Rundlett 55)

Blends & Bicolors

Brown Crown (Welch 62) brown

and red-violet

Buenita (A. White 61) apricot
DAINTY DANCER (A. Brown 61)
yellow and lavender

NAMBE, yellow and lavender

Neos, yellow and pink

Painted Rose (Earl Roberts 64)
yellow, falls overlaid rose

PARAKEET (Roberts 57) tan
and heliotrope

* SPRING SPRITE, yellow and
lavender

Whispering Leaves (Grapes 62)
tan and brown
WILD CANARY (Roberts 57)
yellow and violet

Erratics

JOSEPH'S COAT, yellow and
ivory patchwork, F brown
and purple

KALEIDOSCOPE, yellow, purple
dotted splashes

SPECIES IN MTB SIZE RANGE

I. cengialtii

I. illyrica Trieste

I. pallida (some clones)

I. perrieri

I. reginae

I. rudskyi

I. variegata (some clones)

EXCLUSIONS AND DOUBTFULS

Apache Papoose (Tolman 60) reg. MTB but 4n

Baby Doll, reg. MTB, now BB

Bootblack, now BB

Dear Walter (Beardsley 60) reg. MTB, 2n.

Too large? Need information

Doodle Bug (McHugh 64) reg. MTB, but 4n

Need information

Debbie Ann, reg. MTB, now BB

Jennifer (Harper, B.) reg. MTB, 2n. Need

information

Kewpie (Lohman 55) reg. IB (Table) need

information

Little Dolly, reg MTB, now BB

Little Lady (Stoll 58) reg. MTB, 2n, need

information

Little Stinker (Redman 62) reg. MTB, but

4n. Need information

Kathryn Weston (Earl Snyder 62) reg. MTB

but 4n. Need information

Minette, reg. MTB, now BB

Nancy Jean (Suiter 59) reg. MTB, now BB

Orchid Butterfly, reg. MTB, now BB

Precious Child (Rees 64) reg. MTB 28".

Too tall? need information

Second Thought, reg. MTB, now BB

Table Talk, reg. IB (Table), now BB

Timmie Too, reg. MTB, now BB

Two Bits, reg. MTB, now BB

Zimbrakeet, reg. MTB, now BB

OLDER THINGS UNDER CONSIDERATION--MEASUREMENTS AND DESCRIPTIONS NEEDED

If you grow any of these please help us determine their status.

Delicata (Parker 1874)

Goldfinch = Prince of Orange,
(Salbach 1873)

Heavenly Blue (Tomalin, not
introduced)

Indian (Sass, H.P. 1929)

Itta Bitta (Ayres 33) reg. DB,
(Montezuma x -----)

King George (Perry 1911)

Midas (not King Midas) (Bliss
1920)

"Quail" unidentified

"Rattlesnake" unidentified

Rolandiana (Lémon 1840)

Timmie (Richer 1931) reg. DB

OBSOLETE VARIETIES

None of these appears extant at present; most were never introduced.

All the TI registrations of Charles Gersdorff, plus the following:

Abbotsford (Bunyan 1935)

Blue Patch (Fanick 1946)

Chatelaine (Bunyard 1935)

Cobweb (Bunyard 1935)

Elfin (Bunyard no date)

Gamine (Peckham 1943)

Gossamer (Bunyard 1935)

Hillbilly (Maples 1938)

Imp (Bunyard 1935)

Ivory and Gold (Coe 1938)

Little Bo Peep (Lothrop 1934)

Narise (Burtner 1937)

Operetta (Maples 1934)

Sprite (Bunyard 1935)

Terra Cotta Sky (Keller 1943)

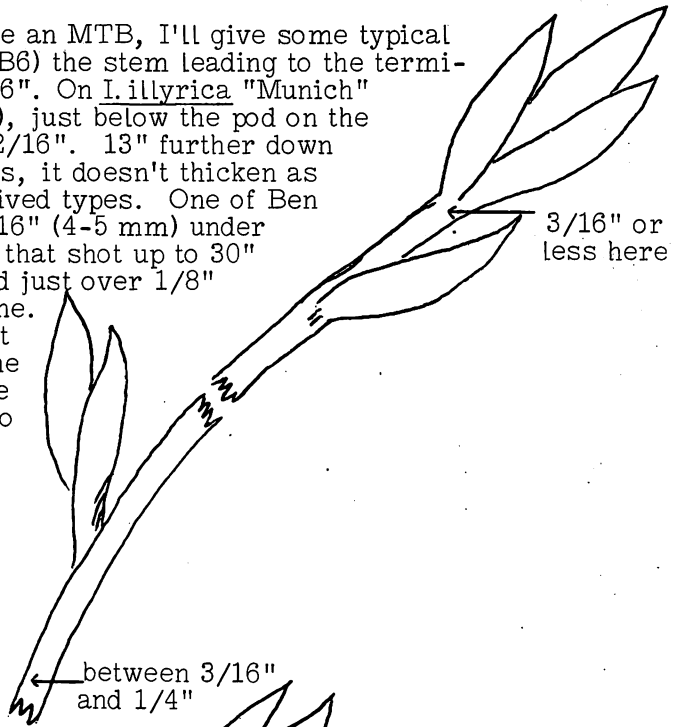
Texas Lassie (Fanick 1946)

ON MEASUREMENTS

For those who have asked how to measure an MTB, I'll give some typical measurements: on my ruffled seedling (64-06-B6) the stem leading to the terminals measured $3/16"$; below the stem leaf, $5/16"$. On *I. illyrica* "Munich" (seed from Botanic Garden, Munich, Germany), just below the pod on the only branch, 4 mm, which is a hair less than $2/16"$. 13" further down this stem is still only 6 mm in diameter; that is, it doesn't thicken as fast on the way down as do the *I. variegata*-derived types. One of Ben Hager's *I. aphylla* derived MTB is less than $3/16"$ (4-5 mm) under the terminal pods. One of my seedling efforts that shot up to 30" in height is $1/8$ to $3/16"$ under the terminal and just over $1/8"$ on the branch; this one is $3/8"$ at the ground line. This drawing is of Sherwin-Wright, a stalk that was 19 $1/2"$ to the tip of the terminal pod. (The sketch is about 12 $1/2"$ --add the extra 7" to the stem, in increasing amounts as you go down, to get the real effect.) The pencil with which I made the drawing is $5/16"$ in diameter--too large, just as Lee Eberhardt said.

Now, Sherwin-Wright grows somewhat taller in Seattle than it does in other areas--for all I know, its stems may be accordingly thicker in other areas. Glancing back over comments of past years I find that it seems to be a better "fit" on the Pacific Coast than it does elsewhere. Also that it was a better fit in more places in 1962 than it was in 1964!

All the best seedlings I had during 1964 ran from about 19 to 23" in height, for a stem of these general proportions, and a flower



between $3/16"$ and $1/4"$

about 3" to 3 $1/2"$, tip to tip. These were flaring or semi-flaring flowers. There is pretty general agreement that

a $3 1/2"$ diameter on a flower with hanging falls gives too large a flower. Quite a few people have intimated that (since we can't seem to achieve perfection in all traits simultaneously) we might allow a flower up to 4" across--if the stems were slender. But not even a 3" flower on a thick stem. The idea of course being that the thin stem is more important than the exact flower size.

just over $1/4"$ here

LEE EBERHARDT on Measurement: (see the Medianite, October 1963:90-91 for gauge for measuring stem diameter.)

In the past three years I have measured a lot of Irises for stem diameter and height... using the wire gauge to measure directly under each bloom socket and branch on the stem. In general, I believe any stem over $1/8"$ diameter under the terminal and over $1/4"$ under the lowest branch will be stiff, clubby, and coarse--not wiry.

As far as flower size is concerned, I believe a clearer definition is required than height and width not to exceed 6". This completely ignores the important factor of FORM!! A dainty bloom with flaring or cupped falls might measure 2 $1/2$ or $3/4"$ in height and 3 $1/2$ or 3 $3/4"$ in width. On the other hand, an iris with opened standards and drooping hound dogear-type falls might measure 3 x 3". In this case the better MTB would be outside the definition, every other requirement being met. In general, I believe any bloom over 2 $3/4$ to 3" in any dimension is usually too big.

An ideal example would be, say, a 20" stem of Nambe with 4 branches, 10 to 15 buds, three to the socket (in most cases, measuring from the terminal at minus $1/8"$, $5/32"$, $3/16"$ to minus $1/4"$ under the bottom branch... minimum at least two branches and at least seven buds....



PAPERDOLLS, ANYONE?

To help you visualize the matter of proportion in MTB, we have devised these "paperdolls." (For the list of MTB requirements see page 13 in the January 1965 issue of the Medianite.) We suggest that you get out the scissors and tracing paper and assemble a sample plant. The parts as drawn will give you the approximate proportions for a plant about 20" tall. * The leaves are life-size from Smarty Pants, the flower life-size from Ice Fairy.

Lengthen the Sherwin-Wright stem by adding about 1", 2 1/2", and 3 1/2" from top to bottom at the breaks. (If you hold it up behind the leaves "as is" the stem will be too thick too high up.)

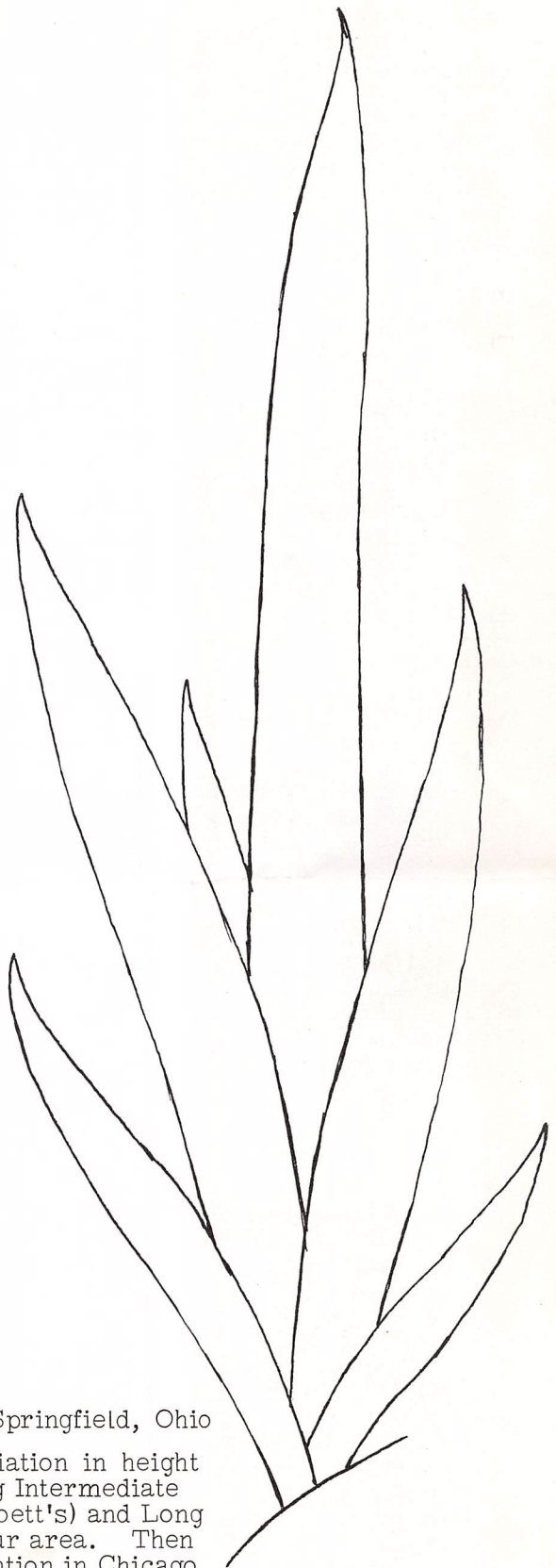
* Your editors both forgot the reduction in printing until too late to adjust the drawings... the parts as printed will give about a 17" stalk; for a taller stalk extend the stem further; by Jean's way of measuring tip to tip, this flower is 3 1/4" x 3 3/8" in the original drawing. It will be obvious why 28" is too tall for flowers of this size. REMEMBER THAT A PLANT WHICH QUALIFIES IN ITS OWN CLIMATE AT THE MIDPOINT OF OUR 15-25" HEIGHT RANGE IS THE LEAST LIKELY TO GO OUT OF BOUNDS IN OTHER CLIMATES.

Have fun, and let us hear your comments.

Re: CLIMATE

Lee Eberhardt, Springfield, Ohio

"Another observation of this year is the big variation in height due to regional differences. I made a trip east during Intermediate bloom and saw a number of gardens in Connecticut (Goett's) and Long Island. The SDBs grow much shorter there than in our area. Then there were the two Table Irises at the National convention in Chicago that grew as tall as Iowa corn. Buenita 32 inches tall, flower 3 1/4" x 2 3/4"; 29 inches, 4" x 2 1/2". Quien Sabe 30 inches, 3 3/4" x 2 3/4",



the latter noted as coarse, too clubby and stiff. And in the same garden Prairie Blaze (TB) measured 23 inches as a big "glob" of color and it came close to getting the President's Cup. Out of Illinois on clay soil I'll bet it wouldn't make 18 inches height with a flower about 5" x 5". Which brings up a point: how close can we stick to TI classifications if there is a wide regional variation in height and bloom size? I frankly think anything I consider T.I. here, in the Chicago area would be like the above. In other words, a variety may be completely TI in the breeder's garden and area and not make the grade anywhere else. The answer of course is evaluation under standard conditions like the test garden at Kingwood. "

NOTE ON LÉMON

In the Journal of the Royal Horticultural Society vol. LXV, pp. 363-375, November 1940, "Iris of Yesterday and Today" by B.R. Long, we found considerable information on the French Iris breeder Lémon. Long says there was an article on Lémon's iris unsigned, but perhaps by Salter, headed Paris, May 31st, 1841, in the first volume of the Gardeners' Chronicle. The following year the Paris correspondent wrote again: "...from artificial impregnation of germanica, plicata, Buriensis, Swertii, and pallida totally new colors have been produced, and the beautiful mixtures.... give abundant proof of what may be done by judicious hybridization." Long comments: "This article is of interest as it definitely states that these varieties, of which a list of 40 is given--Lémon's varieties--were produced by judicious hybridization, and were not the result of sowing chance seed pods." (p. 364). No mention is made of variegata, but it seems safe to say that it too must have figured in the ancestry of Lémon's varieties since there are plants of variegata coloring among them.

FROM GERARD'S HERBALL, EDITION OF 1633, p. 58-59

"There are many other varieties of the broad-leaved Floure de luces mentioned by our Author; as also of the narrow leafed, which here wee doe not intend to insist vpon, but referre such as are desirous to trouble themselues with these nicities, to Clusius and others. Notwithstanding I judge it not amisse to giue the figures and briefe descriptions of some more of the Dwarfe Floure de-luces, as also one of the narrower leafed.

7. "This therefore which we giue you in the seuenth place is Iris flore caeruleo obsoleto etc. Lobely. (This was before the days of binomial nomenclature, remember) The leaues of this are small and long like those of the wild Bizantine Floure de-luce; the root (which is not very big) hath many strong threds or fibres comming out of it; the stalke (which is somewhat tall) divides it selfe into two or three branches, whereon grow floures in shape like those of the other Floure de-luces, but their color is of an ouer-worne blew or Ash colour. "

SPECIES NOTES

Iulius Prodan, "The Iris Species of Rumania," *Bulletinul Grădini Botanică Si Al Muzeului Botanic Dela Universitatea Din Cluj, Roumanie*, 1934. (Translation published by the Median Iris Society, 1964) is helpful in answering the question of color variation in Iris variegata. On page 48 he describes the flowers as having falls "red-brownish toward the top, in the middle dark violet veins enclose light violet areas, with a narrow yellow line along the margin; haft... with violet veins and light yellow-violet areas. The standards "yellow (gold yellow)... brownish-reddish spotted haft." Among the herbarium specimens that he studied, one was marked "flowers yellow." One (from Vienna) with large perianth parts was blue or spotted with blue. (Was it perhaps a garden flower?) In another "falls as well as the standards are dark blue striped." In var. pontica which he described as a new variety, the yellow apparently is not restricted to the margins of the falls. The blade of the falls is described as having a brown spot near the tip "below which there are brown veins enclosing sulphur yellow fields. The standards are "light brown with darker veins, yellowish with numerous brown veins toward the base. The style arms are brown (they are yellow in the type).



A plant variously described as Iris lepida Heuffel and I. lurida Reichb. from just over the border at Grebenac, Yugoslavia was thought by Bernátsky to be only a variety of I. variegata with more intense colors: falls... "whitish, violet along the margin, transversed by violet veins from the base to the middle; the standards white, slightly overrun with violet; beard yellow."

If any of these color variations are the result of hybridity, they are not, it would seem, the aftermath of crossing with I. pallida, which Prodan says is seldom found in the wild in Rumania, though cultivated in gardens and parks. The distribution map shows I. variegata growing in the same localities as I. hungarica Waldst. and Kit., but this would not necessarily mean that they occupy the same habitat.

Re: BUDS AND BRANCHING CONTROVERSY

Jean Witt, Seattle, Washington



We had examples of several types of MTB branching in our educational exhibit at our 1964 show--so I made a point of asking two of our members who consistently carry off prizes in the decorative section, what sort of branching was really best for arrangements. Both of them told me that stalks with many buds and branches would have to be trimmed for arranging because wide branching would interfere with proper line. The aphylla type with its nearly vertical lines did not pose this problem (though some of the flowers get squeezed as they try to open). It seems that a plant like Pewee, with only 3-5 buds is more useful as an arranger's flower than those with what we consider good branching.



Our aim has been to breed MTB with lots of buds; the official minimum was set at five; no plant with less than seven really lasts long enough in the garden. Alice White has achieved a triumph in her Buenita which had 18 and 20 buds to a stalk in the Seattle area in 1964. Yet obviously we have a conflict between the good garden flower in which a large number of buds insures a long season of bloom, and the arranger's flower where simplicity of line is preferable to many buds. We find ourselves in the unhappy predicament of promulgating "Table Iris" which are better in the garden than on the table. At the risk of being shouted down, I therefore venture to suggest that our purpose might be better served by allowing some varieties with less than five buds (if they produce as many bloomstalks as Pewee) while encouraging those that have more.



Re: OLDIES THAT MIGHT QUALIFY

Everett Randles, Sherman, Texas

Everett Randles, Sherman, Texas, has been watching her collection of old irises for us, keeping an eye out for "oldies" that might qualify as MTB, and smallish things that would be useful for breeding purposes. Spring freezes may have affected the stem height, but here are a few that sound interesting:

Pewee

Bronze Beauty S6M (Barr 1884) Bronze self, bronze beard; very airy form, standards closed and falls flaring; tall straight stem, 14". (RHS Journal says 24" - JGW)



Rubyd R7D (Dykes 1922) Very small ruffled flower, rich ruby-purple; hafts white, heavily veined bronzy-purple; wide heavy beard for flower size, white tipped orange; standards cupped, falls drooping; heavy pollen; three branches, three buds to each socket. Set five seedpods by Red Riding Hood pollen.

Petit Vitry (Cayeux 1906) Dark blue bicolor, 20" tall; three branches, two buds to each socket. A small edition of Opera or Mussolini.

Red Riding Hood R9M (Koehler 1922) Reddest of all the diploids that bloomed. Standards rose-red, closed and rounded; falls darker red and horizontal. Style pale violet, ribs cream; three branches, three buds to each socket; 18" tall with thin stems.

Honorabile

Shakespeare, identity not certain. Cream standards, red-violet falls edged cream, under side of falls white; hafts white veined purple; 8" tall, two branches; small flowers and thin stems.

Gloire de Hillegom B;M (Krelage bef. 1907) Pale blue self, airy butterfly or orchid form; pale yellow beard; small flowers, thin stems. I want a whole bed of this for arrangements, it is so airy and pastel blue.

Princess Royal B1M (Smith 1902) Rich light purple self, white beard; curved stems, small blooms, thick substance and taffeta finish. 1939 Checklist says this is a form of I. pallida.

COLOR IN DIPLOID BREEDING

It has always seemed to me that all the various color types in the diploid tall irises, including the table irises, could be explained in terms of three factors carried either in *pallida* or in *variegata*. These are, a factor for blue self color in *pallida*, a factor for yellow self color in *variegata*, and a factor for an anthocyanin fall overlay, also in *variegata*, this last being what I understand you to mean by "spot."

When the species *pallida* and *variegata* are crossed, the seedlings of the first generation are squalens, to use that old term; they carry all three of these color factors and show all three characters... blue, yellow and fall overlay. Today we would call them blends, or bicolor blends. I don't know of anybody ever making this cross, using undoubted wild forms of *pallida* and *variegata* for the cross. The cross did occur in the wild where *pallida* and *variegata* come together in their ranges; you will remember that Dykes found hybrids between these two species on the eastern side of the Adriatic in what is now Jugoslavia. Whether these plants seen by Dykes were first or later generation hybrids is a question perhaps, but there had been some hybridizing of *pallida* and *variegata* in the wild. From *pallida* and *variegata*, and from wild hybrids of these, I think there can be no doubt that our garden diploid tall have come.

Starting with first generation hybrids of wild *pallida* and wild *variegata*, if such first hybrids are intercrossed, or selfed, and if a sufficiently large second generation progeny of seedlings is raised, the three characters will appear in various new combinations, giving everything that occurs in the diploid tall.

The combinations would be as follows, using only the capital letters to designate the three factors... B for blue, Y for yellow, and V for the *variegata* fall overlay:

- BVY - squalens, or bicolor blend
- BV - neglecta
- BY - squalens, or blend without the fall overlay
- VY - *variegata*
- B - blue self
- V - *amoena*
- Y - yellow self
- bvy - the triple recessive, which would be a white self.

These combinations will appear in the usual ratio of 27,9,9,9,3,3,3,1, in the order in which listed above.

This simple explanation of where the different color types come from in the diploid tall covers the whole range of colors and patterns except *plicata*. I have been inclined to think *plicata* also appeared as a result of the hybridizing of *pallida* and *variegata*, but there are other views in the iris world on this.

... There are some other things I might comment on however. In wild *variegata* the fall overlay seems always to be in the form of veins, and I think most of the earlier garden *variegatas* had the character mostly in veins. I think especially of the G&K varieties Fro, Gajus and Mithras that I used to grow. In the better garden *variegatas* more recently produced, such as Knysna, Maori King, Lodestar, Gay Hussar, and some others, the overlay is practically solid, the veins having run together. It has been the same way in the *amoenas*. Maybe the solid overlay occurs in wild *variegata* at times, or varies in that direction; I don't know. Possibly also, this solid fall overlay comes as a result of the hybridizing with *pallida*, as you suggest; again I don't know, but it is conceivable that *pallida* might have contributed genes for this coalescing effect. And no doubt selection in the direction of a more and more solidly colored fall has been important for its appearance in its best form.

We have to remember that all the early iris breeding, or that done before 1900, was done before there was any knowledge of genetics, or science of genetics. The early breeders, moreover, had only the diploids to work with, and of the diploids in their gardens there were only *pallida*, *variegata* and various hybrid derivatives of these species. There were a few old 44-chromosome irises... Florentina, Old Blue Flag, etc, but there is no reason to think these were worked into the garden irises of that time. I don't think we have to look any farther than *pallida* and *variegata* for the explanation of the color types now found in the diploid tall. There were different forms of these two species to be sure. Dykes mentions that *variegata* varies greatly in time of bloom, and no doubt it varied also in other characters. We know how widely *pallida* varied in its characters.

I think additional information of interest will come from further experimental crossing within the diploid tall, and I'm glad you have undertaken this study.

→ COLOR IN DIPLOIDS--NOTES AND COMMENT

Bee wrote asking me to comment on these extracts from some of Paul Cook's letters about the time I started to put together a review of color among the diploid BB and MTB for this issue. I will accordingly use them as a point of departure, since most of what I have to say is merely amplification.

Paul's concept of BVY is a good basic one. The only real quarrel with it is that things are just not that simple--as I'm sure he himself was very much aware. If we could begin over again with *pallida*-*variegata* hybridization, we might see the shadowy outlines of such ratios as he gives; but in practice we work with diploid varieties many generations removed from the first *squalens*, and ratios are seldom as clear cut as we would like them.

To begin with, I think it gives us a more accurate picture of the situation, if we separate color from pattern. Let's put it this way: *Iris pallida* contributed an anthocyanin in a self pattern, plus carotinoids restricted to the beard. *Iris variegata* contributed an anthocyanin on the falls only (amoena pattern) plus carotinoid yellow in a different pattern having standards self-colored and falls bordered with white in reverse bicolor design. Yellow selfs are known in derivatives of *I. variegata*, but the type is described and pictured as having purple falls bordered in yellow or white (see Dykes p. 235). The *squalens* coloration gives us a good idea of what the F₁ looked like. (I'd rather think of the terms blend and bicolor blend as applying to the prettier combinations of advance generations.) As hybridization shifted from the wild to the garden, the new combinations that appeared were saved and recombined, bringing us our modern range of colors and patterns among the diploid falls. This process, of course, is still going on.

Let's take a look at a few of the things that contribute to our wide variety of colors, beginning with the whites. Probably at least some of our diploid whites (non-blues) and yellows are recessive segregates as Paul shows. The white *pallida* from Yugoslavia, however, is a within-species mutation. White and yellow "*variegatas*" are also known. Others have perhaps arisen by mutation after the manner of Sherwin-Wright (see below). Still others, notably *Pluie d'Or*, appear *plicata*-connected. It seems unlikely that all these whites are genetically the same, since several different tetraploid whites are known. No dominant whites have been identified among diploids. I have yet to cross two diploid whites and get a blue self, but I have had many crosses in which puzzling increases in anthocyanin occurred. Some whites appear in a great many crosses of diploid varieties, regardless of colors involved, which seems to indicate that the gene or genes for white are very widespread among diploid TB, BB and MTB.

As for yellows, chromatography has shown us that a single Y will no longer adequately describe the plastid pigment situation. Rather, we have a series of several carotinoids, ranging from lemon to tangerine. Many diploid yellows contain at least three yellow pigments, one of which corresponds to the xanthophyll yellow of Elsa Sass. (So far we have found no diploid varieties with just xanthophyll, but it seems likely that we may.) The petals of *Zingara* and others appear distinctly orange; orange beards are common. Dr. Werckmeister found lycopin, the tangerine pigment, in the beard of the Table *Iris* Daystar; red beards have been reported from several other diploids. I'm still trying to get *Marquiesette* to bloom so I can test it--it was described in the 20's as being pale shrimp pink. Yellows are known to be linked in pansies, but we do not know whether this is so in *Iris*.

Intercrossings and selfings of diploid yellows give some white seedlings, and it has been assumed that yellow is dominant to white. None of the BB or MTB with which I have worked has been homozygous for yellow; there is much variation among their seedlings, both as to distribution and depth of pigment. Not all the complications however, can be attributed to the existence of more than one yellow pigment.

We need some other explanation for the increasing list of crosses in which non-yellows (whites and blues) have produced some yellow seedlings. Yellows appeared in the F₁ from white *Solitaire* X blue bitone *I. reginae*; from *amoena* Mrs. Andrist X *I. reginae*; they are reported from the selfing of Daystar. Col. Jesse C. Nicholls, thirty years ago, had an even more puzzling experience. He made crosses in which yellow disappeared and could not be recovered in subsequent generations. Something other than simple dominance would appear necessary to explain these two opposing situations. Col. Nicholls wondered if there was a factor which inhibited yellow. Complementary gene action is another possibility that has been suggested. At any rate, if you use *Solitaire*--keep an eye on it. This is an area in which further investigation is badly needed.

To be complete, of course, we must add *plicata* to the picture--and we can still argue about whence it came. We know that the *plicata* pattern has existed in gardens for several hundred years because Sidney Mitchell tells of seeing such irises depicted in old paintings in Europe. Personally, I'm inclined to believe that the tall line-edged type may have been some long-ago

mutation of I. pallida as Dykes suggested many years ago (Dykes, The Genus Iris, p. 235). That still leaves us with the smaller, dotted ones to explain, with their obvious I. variegata traits. Was there also a within-variegata mutation to dotting? Or shall we agree with Paul that the plicata pattern is the product of hybridity? At present there is really no way of knowing--we can agree that regardless of origin, hybridization has greatly increased the variation of plicatas.

It is interesting to note that apparently all the early ones had the pattern only in blue or violet. In 1920, yellow ground plicatas were few in number and the yellow was very pale. Any bright yellow ones that may have been developed by the end of the 20's were eclipsed in the rush to large tetraploid yellow selfs. Yet the potential for bright yellow ground plicatas is just under the surface--I have had them in the F₁ from Sherwin-Wright; also one with a border of yellow dotting from the selfing of Pluie d'Or. Mrs. Tharp's Meadowlark is a named example.

We must also mention another class of petal components--the colorless co-pigments. (see "Iris Colors and Pigments," by Dr. Peter Werckmeister, AIS Bulletin #158, July 1960, pp. 25-33 for more complete information.) Of these the most easily demonstrated are the flavones. They show up in chromatograms as yellow streaks when the paper is held over ammonia fumes. To date, I have seen their effects in the following instances:

In I. pallida derivatives, the difference between blue and orchid pink appears to be the presence of a flavone with the blue, and its absence in the orchid pinks. Since the cross Ariel (blue) X (Widget x Mrs. Andrist) also blue, gave some orchids as well as blues, it seems likely that presence (blue) of flavone is dominant while absence (orchid pink) is recessive. Lavenders also occur; doubtlessly dominance is not always complete. The one clone of I. variegata that I tested appears to have a flavone which is not the same as the one which accompanies the pallida blues.

A pale yellow flavone can be demonstrated for I. imbricata (along with some carotinoid yellow). There is at least a possibility that this flavone is responsible for the inhibitor action that Paul saw. The imbricatas that I have grown appear to me to have a bluish component. The darkening effect of this blue when hybridization separates it from its possible inhibitor is an interesting thought and should be pursued further. Personally, I feel it is safer, when we bring in a new species such as I. imbricata, to assume that its pigments--both visible and invisible--may be different from those of I. pallida and I. variegata, until they can be proved the same.

The breeder who is going to work with Table Iris should know about one additional item--the peculiar behavior of the little old Lemon variegata Honorabile. It was a widely used parent in the early days of Iris breeding and is turning out to be a most interesting parent for Table Iris. Honorabile has a well-documented history of repeated mutation. Joseph's Coat (not Joseph's Mantle) is an erratic mutant in which part of the yellow is missing; Kaleidoscope is an erratic purple-dotted plicata; Sherwin-Wright is a yellow self. Joseph's Coat and Sherwin-Wright have been known to revert to Honorabile coloring (Kaleidoscope may; if you grow it, watch it.)* The cause of this mutation and reversion irrespective of pigment is not known, but a large number of diploid varieties of variegata ancestry either show a tendency to it themselves or throw seedlings that do. Furthermore, seedlings raised from Sherwin-Wright and Kaleidoscope turn out, in part, with dark falls, as if Honorabile had been used instead. Sherwin-Wright, in particular, has given me several unusual yellow ground plicatas with strong variegata influence. I'm not saying these are necessarily mutations, but it is worth considering that Honorabile and its relatives, because of their tendency toward repeated mutation, might constitute a source of new patterns. Unfortunately, they are not very fertile.

As for the coalescing effect, producing smooth hafts in contrast to the conspicuously veined hafts of typical I. variegata, I'm inclined to agree with Paul. If we could look at a lot of pure I. variegata in the wild we might understand some of these things better. I. pallida may very well have influenced the amount of coalescing. What bothers me are the seedlings in which the variegata veining seems to have decreased rather than increased. This may be a recessive trait since there is evidence that veined hafts is dominant to smooth.

I, too, see no evidence of the influence of the 44 chromosome IB such as Germanica and Florentina upon the diploid complex. Even the very dark bitones such as Archeveque appear to me to be only advance generation segregates of purely pallida-variegata ancestry. I. cengiattii may have brought in a tendency to dark selfs, too.

I will make no comment on the allelic homology. A glance at the ideograms of the two species in Garden Irises will show that their chromosomes are far from homologous.

*Peggy Grey caught Kaleidoscope in reversion this year.





FURTHER COMMENTARY

L. F. Randolph

While reading Jean Witt's very interesting discussion of color inheritance in the diploid tall bearded and table irises, including comments on the views of Paul Cook, I was reminded of Dykes' brief comments of more than 50 years ago on the little-known results of crossing I. pallida and I. variegata, (The Genus Iris pp. 234-235. 1913), and the Mendelian analyses of flower color inheritance published a few years later by Bliss in England (Journ. Roy. Hort. Soc., London 45:289-292, 1919-1920; Actes et Comptes Rendus 1^{er} Confer. Internat. Iris, 1922. Soc. Nat. Hort. France, 1923). A review of what was known about iris genetics, summarized in 1945 by A. H. Sturtevant and myself (A. I. S. Bull. 99:52-66), included available information on diploid tall bearded cultivars, and was brought up to date in Garden Irises published in 1959. But much more information about iris genetics has become available since then through important contributions of Jean Witt and others.

During an iris collecting trip along the Dalmatian coast of Yugoslavia in 1954, I discovered a white mutant of I. pallida near Dubrovnik, and among large populations of this species in this general area there were attractive orchid-pink variants of the more typical blue-lavender forms.

On subsequent iris collecting trips in southeastern Europe during 1959 and 1961 I. variegata was found growing wild in Austria, central Yugoslavia and elsewhere in the Balkans. Among various collections of this species growing in my garden at the present time there is a variant lacking yellow color in both standards and falls, described from Cluj, Rumania as I. variegata var. pontica* and I also have a similar pale yellow form, suggesting that the yellow locus in this species and its derivatives may include alleles for different amounts of yellow coloration. Dykes' inclusion of I. leucographa Kerner and I. lepida Hueffel as albino forms of I. variegata is additional evidence of the mutability of the yellow locus of this species (Dykes, The Genus Iris, p. 160 1913).

In attempting to verify the assumption that the wild forms variously described as I. squalens and I. sambucina are in fact natural hybrids of I. pallida and I. variegata, I have had no difficulty in producing first generation hybrids. These are tannish blends of the squalens type. But hybrids of this sort that we have produced are almost completely sterile. The plants are very vigorous but little or no good pollen is formed; controlled pollinations have failed repeatedly to set seed and pods are very rarely formed from open-pollinated flowers. We haven't attempted large numbers of such crosses involving different collections of these species from the wild, nor have we attempted backcrosses to either parent species, some of which might be successful. But from the karyotype analyses of their chromosomes made by Dr. Mitra in my laboratory some years ago (see Garden Irises p. 300) it is apparent that the chromosomes of I. pallida and I. variegata are very different and sterility among their hybrids would be expected. Backcrosses of the first generation pallida X variegata hybrids to either parent should be more productive of viable seed than sib crosses, and succeeding generations should be still more fertile. I suspect this is how the cultivars listed for the first time in nursery catalogs more than 100 years ago by Lemon and others in France had their origin. Since there appear to be no published records of controlled pollinations having been made during that very early period of iris culture it is probable those early varieties were obtained from open-pollinated seed, which was known from the much earlier reports of Clusius to vary in a wonderful way. **

Recently we have looked at the pairing behavior of the chromosomes of first generation hybrids of I. pallida and I. variegata. There is much irregularity of the sort to be expected from visibly unlike chromosomes; some are unpaired at the metaphase stage of the first meiotic division in the pollen mother cells and others are associated in unusual configurations, probably due to unlike structural rearrangements of parts of the chromosomes of the parental species. It is not surprising that many of the older diploid tall bearded varieties are poor seed producers.

The Mendelian analyses of color inheritance by Bliss, referred to earlier, are worthy of careful study, even though he failed to achieve his principal purposes of producing a crimson iris and a plicata with bright yellow ground color. He did obtain recessive whites from both a-moenas and plicatas, and dominant whites from the intermediates, Albicans and Germanica Alba. By crossing red-purple with Mme. Chereau, a white ground plicata, he noted independent segregation for red and plicata. He knew of Willstätter's early work on the chemistry of flower

*Prodan's description of I. variegata var. pontica differs (see p. 54); interpretation of this variety has perhaps changed since his day; or else I. variegata presents a confusing situation, even in its homeland. JGW

**See note on Lemon page 54.



colors and was aware of the fact that the yellow pigment of iris flowers may be borne either in plastids or the cell sap.

Bliss' chief claim to fame among iris hybridizers was the production unexpectedly of the tetraploid variety, Dominion, from the $2n \times 4n$ cross of Cordelia X Amas. This was one of the first, and from the breeding standpoint most important, of the numerous tetraploids to be produced from the functioning of an unreduced gamete of a diploid. It was these occurrences that brought to the tetraploid level the rich diversity of genes present in the older diploid tall and thus made possible a much greater variety of color forms among present-day tetraploid cultivars than would have been possible from intercrosses of existing tetraploid tall bearded species.

The attention now being focused on derivatives of *I. pallida* and *I. variegata* and related species such as *I. cengialti*, *illyrica*, *reginae* and *perrieri* in the development of table irises, and in unraveling the complexities of diploid iris genetics, should yield interesting results of fundamental importance to all iris geneticists as well as to the breeders of tall bearded tetraploids, and of Table Irises.



A TABLE IRIS TOUR

Lynn Markham



A visit to the Tufts' garden in Grafton, Mass. on June 11 gave an excellent opportunity to observe a large selection of the diploid MTBs in bloom--I don't know why I specified diploid, as though we had tetraploid MTBs--chalk it up to wishful thinking on the part of one who is working with Borders and aphylla hybrids.

I had already come to some conclusions from looking at the few Table Irises I have here at home. Notably, that flowers which conform to the 6 inch maximum combined height and diameter look best on stems from about 16" to 21" in height, and that taller stems require "out-of-class" size flowers in order not to look leggy. I haven't changed my mind on that score.

Kaleidoscope, an interesting yellow with irregular streaks of brown in the falls, seemed quite nicely proportioned and was within the standard. Siskin also fell within the limits of height and flower size, but looks too tall for the size of the flower. This one I also measured at home--it was 24 1/2" tall, with flowers 2" x 3 1/2"--within the standard, but it still looks "leggy." I'd like it at about 19". At Tufts', Sandyson, a recessive plic, had proper height for a Table, and Yellow Tom Tit (22 1/2"), Tom Tit (20") and True Delight, a clean plic with good form (22") were well proportioned with suitably small flowers.

Out-of-class were Sherwin-Wright, both too big and too tall, Buenita (32"), Gajus (28"), Sweetpea Lady, whose stem is 21" but with an oversize flower, measuring 4 1/8" x 3 1/4". Kinglet, Widget and Pewee, by the way, grow out-of-class at home, though I didn't see them elsewhere. Kinglet is much too tall at 26 1/2" for flowers 2 1/2" x 4"--Widget and Pewee are forgiven as I love them both and they have fine, well-proportioned stems in spite of the fact that the former has a flower 2 1/2" x 4 1/4" and the latter 2 1/2" x 4"--perhaps they are getting too much of what I feed my tallies?

The highlight of the trip was the opportunity to look over the MTB seedlings which JoAnne has produced by perseverance and embryo culture. My hat's off to all who are working with this class in the face of semisterility and poor germination! However, there seem to be rewards. There were a good number of well-proportioned Table Irises--whites from (King Karl x 10X) X (Daystar x cengialtii) conformed perfectly, and I understand that a cross on a similar sib gave all yellows, also in good MTB proportions. A cross of (King Karl x 10X) X Daystar produced a nice white Table, and another good white which was similar but oversize. Also well-proportioned were a small group from Siskin X D39-4 (imbricata x 10X)--two flowers from this cross measured 3 x 1 1/2" and 4 1/4" x 1 1/2", and all stems ranged from 16 1/2" to 19".

For those who like a slightly offbeat item, JoAnne has an adorable "species-looking" thing from Widget X *I. reginae*, #D36-4, with tiny lavender stands held in the shape of a ball, and narrow flaring falls streaked lavender on a white ground. And for the purists, the most beautiful white-ground plic, seemingly with EVERYTHING, #E119-1, from Minette X Widget. This has closed and lightly ruffled stands, flaring falls with excellent width AND substance! Its vital statistics--18" tall, with flowers measuring 3 1/2" x 1 1/2"--and this is one that I really look forward to adding to my garden just as soon as it's introduced!

It was a most interesting and enlightening tour--I was delighted with the progress that is being made, and as I said before, my hat's off!



TABLE IRIS - 1965

Mary Louise Dunderman, Akron, Ohio

A separate planting, just for table irises, was even lovelier than I visualized it when planting two years ago. It was a mass of bloom which lasted many weeks. No shy bloomers here! Table irises are much more impressive when they are not competing with the tall bearded and it is surprising what a variety we do have. A planting of the yellow Sherwin-Wright, Jean Witt's blue amoena Ice Fairy, with the white Daystar and purple Tom Tit caused a lot of favorable comment. Of course, we need many new color patterns with cleaner colors, but it will be fun replacing some of the older varieties with new table irises which are surely on the way. Twenty-five named varieties of MTB were in the front row with twenty MTB seedlings in the back row. Of course, not all of the seedlings meet the miniature tall bearded standards in all respects, but I chose the closest ones with the best color. The pinks and orchid pinks of the seedlings derived from Pink Ruffles helped to add color to the bed.

I have tried different approaches in my hybridizing effort for table irises such as crosses with the 24 chromosome dwarf iris species *mellita*, crosses involving table iris x table iris, old diploids x table iris and table iris x lilliputs.

This year the *mellita* derivatives were my favorites. Many interesting seedlings have come from the cross Pink Ruffles X *mellita*. One of them, from Siskin X (Pink Ruffles x *mellita*) is a very small golden buff that blooms with Pewee. It will probably be introduced as it adds a new color to the MTB class. Nice rose pinks, lilac pink Amoenas, a blue amoena similar to Whole Cloth have come from crossing various table irises with the Pink Ruffles X *mellita* seedlings. They are not perfect MTB irises, as the flowers are not quite small enough, but make very good garden subjects just as they are.

The most successful of the table iris x table iris crosses was the Chewink X (Two for Tea x Widget) cross. This gave Clare Louise, a clean flaring white which is just within the limits for MTB. Two for Tea X Clare Louise gave several small orchids which are table irises and are proving to be good parents. Widget X Clare Louise gave a light blue *plicata* which is also a good parent. Pewee X Clare Louise and Daystar X Clare Louise gave nice clean whites which are definite improvements over their parents.

It is too early to judge the few seedlings from table iris X lilliput crosses. One red seedling bloomed this year with beautiful wiry stems. By the time the rest of the table irises were blooming, this particular seedling had three large seed pods as it bloomed just a little after the lilliputs.

During the last two seasons I have been intercrossing various lines such as those mentioned above. The lineage is getting rather complicated; as, for instance, the red seedling from the lilliput set a pod with a deep rose pink which also blooms early. Seedlings resulting from this cross would have the following back of them: Noweta, Pink Ruffles, Widget, Siskin, Chewink, Two for Tea, Lilli-Richtone and *mellita*.

With so many rabid fans working toward better table irises from so many different approaches, the next few years should see the introduction of many new and novel irises. I have a special plot of ground just waiting for them!



ROBIN EXCERPTS

Re: APHYLLA, ARILS AND I. CROATICA

Esther Terrill, Burlingame, Kansas

Five of Stanley Street's Table Iris seedlings bloomed for her in 1964. "Each is different, but all are yellow with brown or red markings. I got a slide, of a fashion, of each. The brightest and prettiest I thought was the (Eversweet X Zingara) cross. It is quite red in the falls; but lined like Eversweet. Yellow stands. The daintiest is the (Kingleet X Zingara) cross. Dainty like Kingleet. Faint brown lined pattern on falls on the bright yellow of Kingleet. . ." She also describes two unidentified oldies which are MTB prospects: "Quail" stands medium brown, falls lined brown on cream white. "Rattlesnake," also brown and yellow but a different pattern. "I now have slides of Kaleidoscope, Honorabile, and Joseph's Coat so they can be compared. There is no resemblance. . . . except for size and fact they are variegata. Joseph's Coat is near amoena. "

"I noticed in one of the early 1920 bulletins that I. sambucina is a native of Czechoslovakia. I think this explains why my grandmothers had drifts of it growing over their gardens. I had



always thought it an ugly little blend. But after I got it from Dr. Peter Werckmeister I took a good look at it. Decided the gold and blue... that... give the gray stands and gray-blue falls may be good to break up the blue and the gold. It is hardy! And dainty.

"The aphylla-arils still fascinate me. The rose Oncobred from (Golden Eagle x Joppa Parrot) X violet aphylla and also Thisbe gave a grayed-pink cross as a whole. All have aphylla branching... aril erased the violet of aphylla. One... of darting form... is a light rose--not rose pink but an orchid rose, looks Table. This cross was crossed both ways with Progenitor pollen and gave some nice Table-sized or near Table-sized two toned or bitoned seedlings. Two were nice dark blue amoena, little Whole Cloths. Another cross had one with lavender stands, violet blue falls; form not as nice but cute. This had pollen. It takes so many years to run these various species crosses to where they give nice ones."

She has this to say about I. croatica. She has two, I. croatica Klaznjec, which she calls "K", and I. croatica Straznjec which she calls "S". "I found "S" to be more coarse in stem and flower, and a rather ordinary purple bloom. But I really liked "K"... real good branching, nearly like an aphylla... light blue lavender. Each branch had one or more branches with terminal and other bud sockets. Both were VERY FERTILE, setting pods, and pollen good even this year. The pods were interesting, those on "S" turned deep purple black after maturing, while those on "K" stayed green... they were cute pods, kind of like aphylla. "K" had daintier blooms, as well as lighter colored. She used the pollen on a nice red TB seedling and says "I'm hoping for at least one or two plants to be Table height so that I can breed back to croatica for a red Table..." "I don't know a thing about how croatica will breed, what it will give, how dominant it is for color, form, faults, etc."

Re: TABLE IRIS BREEDING



Earl Roberts, Indianapolis, Ind.

Germination was very poor from his crosses using the slim stemmed pallida H-5 with MTB. Most of his work has been using Zebra, imbricata and reginae with Tables. "Both Zebra and imbricata throw too-large leaves and heavy stalks, although they do give good bud count with imbricata being dominant for throwing its 4 buds per terminal. Reginae seems to give that S-type of stem that I like but it also throws narrow flower parts and marked hafts.".... "That I. variegata Beardsley was a form that Bob Beardsley gave to me when I visited his garden. I called it that to keep the various clones separate. Actually that variegata was given to Beardsley by Paul Cook who said it had never rebloomed for him. But it always did for Bob and does for me when well grown... I lost variegata pontica two years ago; liked its brownish color. The pallida H-5 had a stem that probably was no more than 1/8 to 3/16" at the base, it was really thin. It course it was short, too, about 12 inches tall, and with only four buds. I. illyrica also carries a stem that is very slim. Rhaetica carries a very slender stem, and has a near tangerine beard but seems difficult to grow well. This year I bloomed a cross of I. subiflora X aphylla 10 dark violet. One blue amoena had a very thin stem and it was crossed to 60R77, a mulberry seedling from Zebra/imbricata X self, and a few seed resulted. This may be mixing them the hard way.

"There were several items on Table Iris work (in Paul Cook's notebooks) which I hope to get another trip. Most of this pertained to his use of mellita X Tables to bring different genes into the 24 chromosome pot. As others have noted in this work he had difficulty in getting seed and when what appeared as good seed was obtained, germination was very poor sometimes."



THE 1965 SEASON IN SOUTHERN CALIFORNIA

Alice White, Hemet, California

There are three plants in the garden from a cross of one of the variegatas from Walter Welch. This is the species I. variegata with yellow stands and "blued" falls with pale blue lines. I have it numbered W. W. #2.

The pollen parent of these seedlings is my Little Honey--a chance seedling from old Mauvine--a pink and honey yellow blend of good flower form but clubby stalk, registered in 1941 but not introduced. So the cross is W. W. #2 X Little Honey.

Plants #2 and #3 have bloomed for a second year. #2 is the better of the two for MTB, though #3 has the better flower form. Both are alike in coloration. The stands and style branches are creamy buff, slightly flushed lavender blue. The falls are overlaid on the blade with lavender blue lines that are a continuation of reticulations on the haft. The beards are full and orange in color. Width of the flower with flaring falls is 3 1/2", the height less. Height of the

stalk is 19" with flowers well above the acceptable foliage. There is good branching with 9 buds. This description was made from #2. The as-yet-unbloomed #1 has the daintiest foliage of the three, and I'm hoping for bloom eventually.

My old 52-9-1 variegata from Nambe X Montour blooms faithfully each year, as does its sib of neglecta pattern. Where so many MTB variegatas have lined falls, 52-9-1 sports a velvety deep solid red blade below a red-lined yellow haft. The stands and style branches are clear bright yellow--the beards orange. The stalk is ideal for MTB with two side branches and 7-9 buds. 52-9-2, the neglecta, has pale blue stands and style branches. The purple reticulations on the haft become a solid deep purple velvet on the blade. The neglecta has the same good stalk, branching, and flower size as the variegata.

Nambe, if one can keep it, is a good pollen parent too, as it gave me Buenita: Sandysen X Nambe. Buenita continues to bloom faithfully each year, apricot with a faint wash of lavender on the falls and intense orange to tangerine beards. It also retains the slim wiry stalk and the branching with many buds. It sets seeds to various pollens and its pollen takes on other MTB. (I still contend the most logical way to get more MTB is to cross the best MTB we have--MTB X MTB).

Clare Louise, Dunderman's charming white MTB, came to me in trade for Buenita and has bloomed faithfully for three seasons. If not on the market it should be. The first year I thought it a bit large for MTB but last year and this it has been perfect in flower wize on dainty stalks. It is branched a bit high and one could wish for more buds (though there are seven) but it is certainly a fine addition to the class. The frilly exserted style wings are a pleasing feature. The beards are pale yellow.

Other MTB that have bloomed for me this year are the bright yellow Sherwin-Wright, a little old faithful, the medium blue Fairy Flo, Zingara, and Sandysen. Bootblack, growing to 29" with too large a flower, should be upped to BB.

Frances Combs writes: "Wish you could see the bright splash of color just outside my office window--a clump of Smarty Pants in full array. I do love your little ones."

Re: MINIMIZERS

Lee Eberhardt, Springfield, Ohio

"Initial intercrossing of standard diploid MTB varieties resulted in little else except frustration. From several hundred crosses only a handful of seedlings resulted. About this time I heard of minimizers and obtained *I. cengialtii* K23-A, Pink Cameo X attica, Chantilly X italica, Chewink X bosniaca (false), Daystar X cengialtii K23-A, and used these on diploid tall, F₁ of the TB x aphylla, BB, and diploid and tetraploid species. Last year some of these bloomed. Noteworthy was (Chivalry x Thisbe) X K23-A. which gave a group of thin-stemmed 10 to 18" blues and whites, all small flowered. Bloom was spotty, but this work indicates that K23-A, Daystar X K23-A, Chewink X bosniaca (false), along with Nambe and Widget, are minimizers. This year (1965) it was also apparent that C700 and cengialtii do a good job of reducing flowers to acceptable size."

Lee reports that he took to heart the advice to try a wide variety of species combinations and has seed planted of the following, to name a few:

Mme Chereau X Dale Dennis; Thisbe X (Mme Chereau x mellita); Truce X Zua; Derring-Do X Thisbe; Smarty Pants X Knotty Pine; Widget X Illyrica Trieste; Chewink X *I. cengialtii* K23-A; Millionaire X #2 Pum-var.

In practically all cases quantities of seed were fairly generous. Remind us to check back in a few years and see whether any of these odd-ball trials paid off in anything approaching MTB!

Re: DIPLOID APPROACH

Walter Welch, Middlebury, Indiana

"You folks can go exploring in other species for possible material for Table Iris, but I am sticking to crossing Tables with the various diploid TB. It is my candid opinion that they are our best source material, at least for the present. Except for a few colors which are exclusive with the tetraploid TB, such as the tangerine pinks, all of the standard colors and patterns can be found in the diploid varieties. I remember Mary Williamson stating that intercrossing Tables gave only more plicatas and variegatas, so using diploid TB with Tables is the most logical course for development. Then of course sib crossing is necessary.

"In a cross of Kinglet X Gold Imperial I found several seedlings with perfect TI form and branching in the F₁ progeny. I am using two whites from this cross as parents with good results.

"One of my most exciting progenies came from some bee pods on a seedling from I. variegata X Table which I had saved because it had yellow stands and falls near white though not full white. From this one row of about 20 plants I named Topsy Turvy, Brown Crown, and First Time. Imagine a range from white, yellow, brown bitone, reverse Pinnacle, plicatas, all in this small progeny. Apparently the Tables are heterozygous for several different patterns.

"In a cross of Monarda X Widget I found a nice red plicata, indicating that Monarda contains the plicata factor. With yellows it should give some nice reds. (Parentage of Monarda is Shekinah X Parisiana--JGW)

"Another interesting cross was (Widget x Daystar X ? In this I found Amoenas, neglectas, and whites; one white had a reddish beard and another a dark brown beard, very appealing. Further crosses of a couple of these whites with a plicata seem to indicate that one contains the plicata gene, while the other lacks it.

"For better blues I am using (blue diploid x mellita) X white Table and from this I also hope to get some Whole Cloth type Tables.

"As yet we have no single specimen which might be called the ideal or perfect model, but... probably Siskin and Kinglet come closest to the fundamental requirements."

BREEDING FOR TETRAPLOID TABLES

Marilyn Sheaff



I have become increasingly convinced over the past six years that table irises are entirely possible from tetraploid breeding. Beginning in 1959 when small numbers of petite borders began to show up consistently in my seedling patch from blood lines involving combinations of pinks with Snow Flurry derivatives, I have been intrigued by the possibilities of the small tetraploids. I can hear you asking, "If tables are possible from tetraploid lines, why haven't they shown up by accident in tetraploid breeding just as they did in diploid breeding?" There is a very logical explanation for this. Because we have liked our tetraploids TALL, our breeders have been consistently throwing out the small things which turned up in their seedling patches. Until very recently, Border irises were merely a by-product of tall breeding, and very little crossing of Border X Border was being done by hybridizers. . . . So, just as we could never achieve a black iris by crossing black X blue, we will never achieve a tetraploid Table Iris until we begin a concentrated program of crossing Border X Border.

There is probably more than one gene for height in operation, and certainly there are many genes involved if we consider all of the characteristics which Table Iris breeders must work for. This complicates the job of achieving a tetraploid Table Iris but does not make it impossible.

I am afraid that I also considered the small things as by-products for several years. I did not throw them away, but it was not until 1962 that I crossed Little Lynn with other small irises in an effort to reduce the size even further. The most interesting results were achieved in a cross of Little Lynn and a small iris resulting from two Fay seedlings used for the Lipstick cross. Both of the seedlings which Fay used to produce Lipstick would have been classified as Borders if they had been introduced. The cross of Little Lynn X Lipstick sib produced all undersized irises. About 2/3 of them were Border size or less, with at least 1/3 having some of the characteristics of Tables. Many of this 1/3 were slender of stem and small of flower, but since size of flower and stem are not dependable in a first year plant, I am waiting for spring of 1965 to measure these.

In the meantime, probably because I have concentrated on breeding with Fay 51-40, I had small irises popping up all over the garden as by-products of tall crosses. The amazing thing is that in one cross in particular I had about 1/5 small things from average size irises. And in this cross the small things were very small indeed! The family tree is printed below:

Hall pink seedling X Celestial Snow	X	Hall pink seedling X Celestial Snow
59-9		60-3
65-21 seedlings		

These little things had stems which measured about 1/4 inch below the lowest blossom on the stem. The flower sizes of the ones that I measured ranged from 2" x 3" to 3" x 3". The height of the flower in all of these was hard to judge correctly because the falls in most cases were horizontal or extremely flared. Notice that in this cross the combination of pink blood plus Snow Flurry is present.

The other cross which produced a disproportionate amount of small things... also involved this combination, this time a sib to Lipstick X Pink Flurry. This is a double dose of the combination since Pink Flurry is one of the few introduced pinks with Snow Flurry blood. In this case the stems for all the small things measured from less than 1/4 inch below the lowest bud to slightly more. The blossoms again rated about 3" x 2" because of the flare of the falls. All of these little things seem to retain the delightful Snow Flurry form. The height range of the seedlings which I have been describing is from 14 to 21 inches, so you can see that they are really little bits of things. Also, the stems on these seedlings are curved and graceful--not the typical straight stem of the Border. There were about 30 seedlings total from each of these crosses; 5 little seedlings were saved from the 62-21 seedlings, while 6 little seedlings were saved from the second cross (62-19 seedlings). All of these little seedlings were given letters at the end of the alphabet to differentiate them from tall from the same cross.

As I said, there is probably more than one gene in operation on the height of irises. The fact that small things occur with such unusual frequency in crosses involving double doses of pinks X Snow Flurry would seem to bear this out. Any of you who are familiar with Mr. Fay's crosses leading up to Lipstick, and even his later breeding with Lipstick and its sibs, are aware that small things were also occurring in his garden to some extent. Up until about two years ago Mr. Fay was interested only in relatively tall things. Now, however, he has a charming red bearded white Border from these bloodlines which he saved and will introduce.

There is a lot of work to be done in this field. I think that we will achieve a tetraploid table before we understand the genetics completely. I do not believe that we are going to be limited to whites and pinks in the tetraploid tables. My best results in the smalls are coming from my 60-3 which should be capable of producing blues. (It is a dominant white from pink X Celestial Snow--seed diagram). Also I have noticed many extremely undersized black irises in hybridizers' seedling beds. It should be possible to breed down in size in the black lines.

APHYLLA FOR MTB

Lee Eberhardt

Several years ago I obtained a purple form of *I. aphylla* from Paul Cook and a clump of Thisbe from Helen Doriot. My original idea was to cross to tall to try to get some branching in the tall. Initial crosses involved Chantilly, Matterhorn, Minnie Colquitt, Chivalry, Zantha, Mexico, Gold Sovereign, Great Lakes, all X *aphylla polonica*, purple Paul Cook *aphylla*, and Thisbe; also a chance cross of Dreamchild X Thisbe. Many of the seedlings were thin stemmed and wiry with small blooms, but the branching in practically all cases was typically *aphylla*. Also never more than two buds to the socket, but bloom season was extended due to the many bloom-stalks per rhizome and multiple branches.

This work resulted in several color breaks away from the *aphylla* purples and lavenders, two exceptional crosses being Mexico X *aphylla polonica*, which gave a blue-bearded red-purple, a yellow, and an icy pale blue; and Dreamchild X Thisbe, which gave two yellow selfs and a nice medium red. Again, close to MTB, but not acceptable under strict AIS definition of MTB. Work has continued sib-crossing, back-crossing and intercrossing these.

Other crosses were made with Gaynelle, Fairy Flax, Lilli-Blue. As would be expected from such crosses about all that bloomed were lavenders, purples and red-purples, mostly with *aphylla* type branching, beards mostly white and blue.

At the same time a number of tall x *pumila* crosses were made. Outstanding among these were: Illustrious X N-502, Jean Cayeux X Hanselmayer, Mary Randall X N-502, Mexico X *Cretica*: also Chantilly X *italica*. These bloomed a lot of interesting IB and SDB.

Some of the more interesting intermediate color forms were crossed with the thin-stemmed tall X *aphylla* F1, particularly where there was an interesting color variation. These crosses bloomed in 1960 and produced cool whites, yellows, near reds, near blues, and light blues. The small flowered and thin stemmed from these were crossed, selfed, and sibbed.

This year many of these latter bloomed. The result was a broad range of Table and near-Table types, with pure whites, a range of blues, several good reds and red bitones, a range of yellows, some with dark orange beards, a number of Chantilly blends, several shades of brown, and of course, lavenders, darkies, and purples. Some interesting flower forms also appeared.

At this writing (May 14, 1965) some are still in bloom. I am not sure they are strictly MTB, due to bloom season. Some of these, a little on the short side, came in with the SDB. But practically all have thin stems and small flower size. Another question is the *aphylla* branching. Some branch right at the rhizome, but all have plenty of branches and buds giving extended bloom season.



The seedling rows previously indicated that Thisbe on such things as Lilli-Blue, Lilli-Yellow, and Lilli-Var, gave very interesting seedlings with lots of color variation. These usually run to very thin stems, small flowers, are short, bloom early, but when combined with the (tall x aphylla) x (tall x pumila) produce these MTB-like things.

One surprising thing about these seedlings is the fertility. Only a few are sterile, many are shy on pollen, but practically all will set seed. The chromosome count is so mixed up I can only guess at numbers in most cases. Another surprising thing is that not one plicata has shown up to date.

If none qualify as MTB, we will certainly have gotten a lot of education, fun, and IBs or BB's. I regret that Paul Cook could not have lived to see some of these seedlings. When he gave me the original purple form of I. aphylla he was quite discouraged about the possibilities of breaking the dominance of the strong purple of aphylla.

A LIST OF SISSIES



Jean Witt

After mild weather in early spring which started the irises growing, we had several nights down to 26 degrees in March just when the apricots were in bloom. As a result, I can give you a long list of oldies that are not very suitable parents here (they may be o. k. in climates where it stays cold until spring finally comes). Remember, one of our aims is to produce MTB that are hardy! These were badly damaged: Aksarben, Sylvia, Thais, Susan Bliss, ?Mary Garden, Dawn, Rhages, Widget, Parisiana, Pluie d'Or; some seedlings from crosses of ?Mary Garden with Pluie d'Or, Mme. Chereau, and Sherwin-Wright; nearly all the Dawn seedlings from several different parents; the "headshrinkers" from Pixie. Some damage was done to the following: Delight, Pink Jadu, Queen of May, Shekinah, Darius, Her Majesty, and part of one clump of Sherwin-Wright. Freeze damage is always followed by rot in many of these. ?Mary Garden and Dawn are the worst about passing on their spring freeze-susceptibility. Note that Shekinah, Sylvia, and Pluie d'Or, all related, were all damaged.

I've also concluded that some old irises lack the ability to bloom every year, and that they pass this trait on to their progeny, casting doubt on their suitability as parents. Her Majesty and several of the little Sass plicatas are on my suspect list for this.

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Re: ANOTHER MTB LINE INVOLVING TETRAPLOIDS Evelyn Minnick, Kansas City, Mo.

In 1957 I crossed Zebra on to Spanish Peaks (57-109). From three pods I had seven seed that germinated and of the seven, four were white selfs, and three were blue selfs.

In 1958, hoping to get a line of Zebra breeding started, I again crossed Zebra on to Spanish Peaks. I got some 50-60 seeds from this and when they bloomed they were all bitones and bicolors. (Yellow, blue, blue-black, dark reds.) The branching on Zebra carried through on the crosses of both years. This was 58-2.

In 1960 I began to sib and backcross to Zebra. I was able to set one pod on Zebra with a result of two seeds (60-25). They both germinated and bloomed for the first time in 1962. Both were selfs, one a very clear rich yellow with a matching beard. The falls were round and flaring and the standards were closed. It bloomed 15-18 inches tall but the blossom was too large and the stem too coarse. The other blossom was a blue black self with a matching beard. The substance was good, the stem and blossom were small enough to come within the table iris requirements but the flower left much to be desired.

A cross of Zebra to 58-2 (60-38) gave me some promising things. One flower that was on the Starshine type but more colorful was a wee bit over the MTB requirements, but it has good 4-way branching with three buds in the socket, has very good substance, and is a pleasing flower growing in a clump. A sib of this is a Princess Anne type flower, has a very well branched stem which is within MTB requirements but not much substance.

The 60-38 crosses bloomed in 1962, but I did no hybridizing that year. The crosses I made in 1963 should have bloomed this spring, but the weather was such that they didn't.

In these two generations I have managed to minimize the size of the blossom, stem, and foliage and I do feel that by continuing this line I will soon have some fairly nice things in MTBs. If I try long enough I may have a Table Iris with striped foliage!

Ed. Note: Freeman Yendall of Kenmore, New York, has been able to add this information about Zebra: "This area knows two Zebras with pale blue flowers; one with golden stripes and one with silver stripes (normal imagination of the colors). The golden one I have counted at about 48 chromosomes and must be the one Randolph counted. The silver one gave a 24 count on Monday." Which of the two Evelyn has been using remains to be seen.

Pewee is always the first MTB to bloom for me. It put forth its first flower on April 26, on May 15th had 15 stalks with two or three open flowers, and was still in fairly good flowering condition between May 25 and 28th, the peak of our season this year.

Fairy Flo performs the way I think an MTB should, but its flower size is 4 x 4 inches, which seems a little bit out of proportion to those pencil-slim stalks. Height varied from 19 to 22". The blue-violet flower is extremely smooth, with a self-colored beard. Form is classic, tailored and nicely flared.

Blue Mouse is typical MTB and I emphatically disapprove of the "gray-blue" color description. The flower as a whole gives the effect of a silver-dusted pastel violet. Standards have an infusion of gold at their bases which is most attractive. Falls are well shaped, arching gracefully; the ground color is silver, washed pale violet, with fine veins in a delicate lacework through the hafts and upper falls. A white-tipped yellow-gold beard is in perfect keeping. Gracefully curved stalks with rather wide branching give poise to the flowers. Height is between 15 and 20", flowers 2 1/2 high by 3 1/2 wide.

Parakeet is in all respects a model of what the modern MTB should be. Stalks are 19 to 20" tall, flower 3 1/2 wide and 3" tall. The delicate little stalks with three flowers open are a delight to behold. Standards are pure gold, nicely fluted; the gold styles have a faint violet rib. The falls show violet solidly washed over a white ground, edged gold, and the entire flower sparkles. Falls flare just below the horizontal.

Little Helen is in its general garden effect a Baby Wabash (except that Wabash despite its eternal popularity is one of the least well proportioned items by modern judging standards.) Domed pale violet standards fade to pure white; falls are deep blue-purple, beautifully tailored and slightly flared.... I was intrigued by the effect of neglecta and amoena flowers on the same plant. This variety has the Pewee type stalk, flexuous, well-branched, 20 to 21" in height. The beard is tipped yellow.

Sandyson has been widely discussed for its varying growth habits in different climates. Here it is consistently 22" tall, with wide branching, and flowers from 3" wide to 3 3/4 or 4" in height. Perhaps the standards are a mite tall for the falls, but the flower is distinct. Standards are green-gold, washed palest lavender, fluted and held very firmly in slightly cupped, open position; falls are trimly tailored, perhaps a bit hanging; the white ground is patterned with plicata dots and washes of sultry lavender, with a brownish reticulation at the hafts and a deeper median line under the light bronzy orange beard.

One of the choice little treasures of the class is Daystar, a creamy parchment white self with a bright orange beard and haft area. The little flower measures only 2" in width and 1 1/2" in height. The stalk is 15" tall, carrying two buds in the terminal, two in the top side branch, and one in the lower branch. The flower is neatly tailored; the little circular falls are about the size of a nickel; the standards are closed so tightly that they virtually encase the styles and anthers.

Neos was consistently 24" tall, but the flower measured 4 1/2 x 5"; it was stockier than Mrs. Neubronner and the stem was not as graceful.... It is a pastel blend. Unless it is more typically MTB in other climates, I'd be inclined to evaluate it as BB.

All the variegatas are planted at one end of the slightly raised display bed; the MTBs are in the front line, with the BBs of a similar color behind them, and the TB in the rear. The TB Mischief is an absolute knockout; it has always been one of the best behaving TB I grow, and far more satisfactory than Firechief or Gay Head, mainly because it is a better foil for the variegata MTBs.

Though it was gaudy Mischief that drew the gentlemen garden visitors down that way, I was astonished to find that it was the loud little Table Irises that they went for. Nearly every one of those TB appreciators was charmed by the Table Irises, wanted them, and remarked upon how much appeal they had.

Kaleidoscope was the real bait. Here it grew 15 to 16" tall, with good branching, numerous stalks over a tremendously long period, and of course the trait for which it is famous: no two falls on any flower marked alike. The falls are flaring, quite tailored, showing off the color patterns effectively. Standards are deep yellow-gold color, sparkling in the sunlight. Dots, dits, dashes and splashes of deep maroon on the falls make this a real conversation piece for anyone's garden or flower arrangement.

Smarty Pants had stalks of 17 to 18" height with excellent branching. The fluted medium yellow standards are slightly open but firmly held. (Substance is something none of these variegatas seems to lack). Falls are patterned with maroon dots and striping in neat lines running from the hafts, then flaring out toward the edges of the upper falls which are edged with the deep yellow of the standards.

My flower measuring system is probably offbeat: flowers were measured from tip to tip of the falls for width, and from the tip of the falls to tip of the standards for height.



MISCELLANEOUS VARIETAL COMMENT

Irene Pyle, DeGraff, Ohio: Bootblack was far too large. Angelita blooms very early but continues till later.

Mary Louise Dunderman, Akron, Ohio: Two for Tea reblooms here if given proper care.

Earl Roberts, Indianapolis, Indiana: This year Zimbrakeet is definitely NOT a Table. Foliage was again too heavy like last year; besides, this year the stem is 1/2" at least, and over 28" tall... how can we get it out of the Table classification?

Don Sturdevant, Spokane, Washington: It was a casual cross of Playboy by a yellow diploid that brought me two Tables which have been registered under the names of Blue Thread and RandiLynn. There is a peculiarity about their leaf structure or appearance. It has a faint resemblance to PalTec or Tectorum.

Walter Welch, Middlebury, Indiana: Brown Crown, though registered as BB, settled down to become a good MTB. First Try represents an improvement in form, with wider petals, while still small enough to retain its daintiness. It has the plicata edging on the falls only, and no anthocyanin in the standards. This last year I saved three Table Iris seedlings, one a blue neglecta, another a good variegata, and a plicata that is a honey. This latter is of such a fine rounded shape that it makes Widget seem like a cull, and the stitching is sharp and clean.

Ben Hager, Stockton, California: Of the aphylla seedlings, this one is the most typical and will be introduced as MTB. It is out of Black Forest X aphylla polonica. (Sketch from photo.)

Jean Witt, Seattle, Washington: One of Ben's seedlings bloomed here this year which I liked very much, a light yellow of good semi-flaring form and better texture than many of our diploid things. Height 30", flower width 3 1/2 from tip to tip of falls; flower height about 2 1/2; stem diameter 3/16 under the terminal, a trace over 1/8" under the flowers on the branches; 4 buds. This one was from June Bride X Thisbe.

The best MTB candidate that showed up among the "oldies" being tested was Delicata (apparently Parker 1874) a little ruffled, semi-flaring pale blue with white beard. Its 21" stems were just over 1/8" at the terminal flowers and 1/4" at the ground line, 2 branches, 5 buds, healthy blue-green foliage. Flowers measured 2 3/4" high by 3 to 3 1/4" wide.

Walter Welch, Middlebury, Indiana: White Knight is definitely not TI as it grows here... far too coarse; but White Queen is fairly near to a Table Iris and possibly the whitest Iris that I grow. I have found White Queen to be very difficult as to fertility, though on rare occasions it will give a few seeds. Here, La Neige has a sort of blue cast as if it were trying to be a plicata. I like Columbine the best; for one reason it is highly fertile. Speaking of colored beards on TI, I have a recessive white diploid with brown beard and one with reddish beard like Daystar, and these are half TI blood coming from Daystar. Daystar has always been an exciting thing for me. It appears as a white, yet it seems to throw yellows, and apparently it contains the plicata factor--and that reddish beard...."



EARLY IRIS SHOWS

WICHITA AREA IRIS CLUB

The Wichita Area Iris Club held its first early Iris show, Sunday, April 25, 1965, at the Fairmount Park Shelter House. 167 specimen stalks were entered in Dwarf, Median, and early blooming Aril and Onco-bred classes, as well as many interesting arrangements.

Silver medal for the most first place ribbons was won by Mrs. Ruby Morgan. Purple rosette award in horticultural classes was given to Mrs. E. A. Slater. Purple rosette in arrangement classes was awarded to Mrs. L. W. Simpson.

Blue ribbon winners were: Don Streeter, Robert Porrey, Wayne Hinderliter, Verna Mae Ewing, Joyce Garcia, Mrs. E. E. Dicks, Russell Morgan, Irvin Roberts, Carol Ramsey, Charles Jendel, Dora Wall, Rosalee Brand, Ruby Swink, Mrs. E. A. Slater and Mrs. Ruby Morgan.

Mrs. Charles Jendel who was in charge of publicity writes: "We were truly excited about the success of the show and felt we had a great response to our initial efforts in the category of the "little fellows." We were so surprised at the number of persons who are interested in Dwarf, Median, and early irises of all kinds. Mrs. Mildred Brizendine and Mr. Stanley Street were our judges and they certainly gave our show a lift toward larger shows in the future."

SEEDLINGS - EVALUATION—Bonnie Dunbar

In an iris garden of illusions
Color-utter confusions

Play upon our delusions
On which, at times - we base our conclusions