

June

July

August

May

# THE REBLOOMING IRIS REPORTER

## Objectives

To breed an improved assortment of reblooming irises, as to beauty, dependability and usefulness.

To promote a better understanding of their cultural needs.

To extend their geographical range.

To educate the public about such range, regarding varieties currently on the market.

To inspire and encourage beginners in this field of interest.

To spearhead research about rebloomers.

To cooperate with A.I.S. officers and committees in the registration, introduction, honoring, and exhibition of this class of irises.

To supply the AIS Bulletin with articles and quotations deemed of interest to its readers.

To supplement the A.I.S. Bulletin by publishing data of interest chiefly to researchers in this field and to members of AIS Reblooming Iris Robins.

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April

March

February

January

Varities { A B C

September

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November

December



JANUARY 1964 No. 5

YOU  
ARE  
INVITED



GET  
OUT  
TWEEZERS

## Polar Flame

*For full story see page 5*

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## Seattle vs Bloomington The Quest for Rebloom by Carol Ely Harper

Editor's Introduction: In issue #4 of this journal (Reblooming Iris Reporter for July 1963, copies still available) Raymond Smith of Bloomington, Ind. listed about a hundred rebloomers and evaluated their growing habits and potentials as parents. We are pleased to present a second evaluation of about four-fifths of these same varieties by Carol Ely Harper of Seattle, Washington, a quite different climate. Only by assembling data from several sections of the country is it possible finally to arrive at a valid estimate of the full potential of any iris. We need to know the effects of climate upon the hereditary tendency to rebloom.

Part I of this report consists of the data submitted by Carol. Part II is your editor's comparison of the official precipitation, freeze data and growing seasons of Bloomington and of Seattle. When comparing this information with that of your own climate remember that Bloomington is in the center of Zone 6a of the U.S.D.A. Plant Hardiness Zone Map. which has average annual minimum temperatures ranging from 10 degrees below zero to zero, while Seattle is in zone 9a which has average annual minimum temperatures ranging from 20 to 30 degrees above zero.

### PART I

AUTUMN FROST. My experience here same as his.  
ALMOND BLOSSOM. Reliable rebloomer here. Have been unable to set seed on it, and it has no pollen. Lovely color.  
AUTUMN DELIGHT. Hard to set pod on it, but has plenty of pollen. Never has rebloomed, but I have it in shade and must move it.  
AUTUMN HAZE. Doesn't sag here, and is my best seed setter. Its pollen sets seed on oncobreds and other difficult irises. Reliable rebloomer.  
AUTUMN QUEEN. My experience same as Smith's except I do not fertilize, so it is not an everbloomer. Very pretty for table.  
BENGAL PRINCESS. An attractive rebloomer here. I have set pods on it but only by use of pollens from dwarfs. Pods usually empty, or with but a seed or two.  
BILLET+DOUX. Have three plants all labeled this. None has rebloomed. All are different.  
BLACK MAGIC (and ELEANOR ROOSEVELT, same thing). My experience same as Smith's. Discarding it as a parent.  
BLUE RIVER. Bloomed in winter and from winter on. Lovely, fragrant, and a good seed setter. Is a parent of my well-liked seedling, BLUE RIVER X AGATHA, the latter an aril.  
BLUE VALLEY. Never rebloomed here. Not tall here.  
BOUNTIFUL BLUE. My experience same as Smith's.  
BRONZINO. Ditto, but not winter-soft here. No rot.  
BUCKTHORN BROWN. Same as Smith, except not winter-soft and no rot.  
BUTTERCUP LANE. No rebloom here, though very pretty. Very short.  
COSETTE. Same as Smith. In 1963 had a seed or two from it using aril pollen.  
CHINA MAID. No rebloom. No rot.  
CUSTARD. Same as Smith, except no rebloom to date. Pods set from White's fertile oncobred pollen.  
DORCAS HUTCHESON. Same as Smith. Reblooms here.  
ENCORE. Same as Smith.  
ETHEL PECKHAM. Same as Smith except never reset. Rebloomed a couple of times before too crowded.  
FAIR ENOUGH. Does fine here. Lovely. Never rots. Reblooms late. Treasur-

ed as a parent with arils.

FALL BEAUTY. Not just another blue-layender, but a smoky black-brown-violet mixture rather than a blend. My plants came from Mrs. Weed (National Test Gardens), the originator. Reliable late rebloomer here. Gives trouble setting seeds, but its pollen is fertile.

FALL FRILLS. Reliable rebloomer. Sets seed and has fertile pollen. No rot. Reblooms early in fall. Fast increase. I use it a lot.

FALL SURPRISE. Fine, short, reliable rebloomer here. No rot. Fertile both ways.

FALL VELVET IMPROVED. O.K. No rot. Reblooms. Fertile both ways but I no longer use it.

FLAME KISS. Reblooms here, and early. Fine, big and tall. Sets seed, but so far no success with its pollen. No rot.

FROST QUEEN. Same experience as Smith.

GERSDORFF SASS HYBRID. Very reliable rebloomer till overcrowded. Acts like an oncobred about setting seeds. Have plenty of seeds from it but have to use as pollen parents such irises as are used with oncobreds, such as AUTUMN HAZE, GIBSON GIRL, etc. Taller here than CAN-CAN.

GLADSONG. Same as Smith.

GOLDEN CATARACT. Same as Smith except never lost, and no rot. Tremendous increaser. Rebloomed once before becoming overcrowded.

GOLDEN HARVEST. Same experience as with the above, but no seeds planted.

GRACCHUS. Same as Smith.

GREEN HOPE. Same as Smith, except did not have to stake. Have its child, GREEN COUNTRY, from Tell. Will notice if it has long falls. GREEN HOPE is fertile with White's fertile oncobreds.

GUIDING STAR. Very reliable rebloomer. Not winter tender. No rot. Fertile both ways. One of my MUSTS as a parent for rebloomers.

HALLOWEEN NIGHT. Same as Smith. Reblooms late.

HARVEST BLUE. Same as Smith. Rarely use in crossing.

JANE KREY. Reliable intermediate rebloomer, but sterile. Discarded.

JEAN SIRET. Same as Smith. A little difficult for setting seeds, but have had a few.

JOSEPH'S MANTLE. No winter kill, but erratic as a rebloomer; one I can't count upon.

KANSAS INGLESIDE. Same as Smith. Very pretty red.

LADY MOON. Never any winter kill. A valuable, fine rebloomer and seed setter.

LINDORA. No rebloom here. Discarded.

LIEUTENANT DE CHAVAGNAC. So ugly it is cute, - and fun to grow. Reliable. No rot. Pollen fertile. Sets seed.

LOIS CRAIG. Had it only a year, but no signs of softness or rot.

MARIPOSA MIA. Have had many plants of this but it is not blue, but white with a few black dots by throat. Can Dr. Smith's be untrue to name? No reblooms yet. Sets seeds.

MARTIE EVEREST. Like Smith on this. Extremely reliable rebloomer until overcrowded. Have seeds and seedlings from it. Flowers small but attractive; some reticulations.

MOLTEN. No winter trouble with this, but so far no rebloom. Have it in shade, however.

MOON GLEAM. Same as with Smith. No rebloom yet.

MOON GODDESS. Not soft here. No rot. O.K. on fertility. So far no rebloom.

MOUNT TIMP. As with Smith. I don't use it anymore as GIBSON GIRL is O.K. and MOUNT TIMP has never rebloomed here, and GIBSON GIRL does so until overcrowded.

NAPPANEE. This is one of those freezing country irises that are no good here in the rain. I have yet to see an iris that is good where it freezes heavily that does not have a terrible time here. It's fall buds

rot from the rain at that time, though it always struggles to rebloom. PRIORITY and some of Dr. Brown's rebloomers do the same here -- the ones that bloom in our rainy period.

NIGHT PATROL. Same as Smith.

OCTOBER OPERA. Same as Smith. Never crossed it. Shall discard.

OCTOBER SHADOWS. Same as Smith. No seeds planted.

OLIVE EVA. Same as Smith, but reblooms only in fall here. Have also the dwarf, PAPPOSE, which sets seed and has fertile pollen, but, so far, no rebloom.

OLIVE WHITE. Same as Smith, except 12 seeds last year from a cross to SULINA. Most reliable rebloomer here.

PINK LACE. Rebloomed only once for me in the years when I had it. Consider it good parent for short irises and horned irises.

RAMESES. No rebloom.

RED GLEAM. Same as Smith.

ROSE PEARL. Same as Smith.

ROSIRED. Had this. No rot and not wintersoft.

ROYAL BAND. Same as Smith.

RUSSIAN BRONZE. Same as Smith but not wintersoft and no rot.

SALLY ANN. Same as Smith. Crosses with White's oncobreds.

SANGREAL. A most reliable rebloomer here. Have obtained a few seeds but doubt that they were planted.

SCARLET TIGER. Not winter-soft here. No rebloom.

SEA ORCHID. Same as Smith, except still have it.

SEPTEMBER SKIES. Same as Smith.

SEPTEMBER SPARKLER. Reblooms every September and through October, under a rose tree -- very pretty, haft marks and all. In spring I never see it.

SULTAN'S ROBE. Same as Smith. Don't plan to keep it.

SUMMER SUN. Same as Smith. Put it down on hill; not using.

SUNSET SERENADE. Vigorous here but unattractive. Has not rebloomed.

THE CAPITOL. Fine flower; vigorous, fertile and healthy, but discarding in favor of other whites that rebloom. This has not.

TIFFANY. Same as Smith.

TORNAMENT QUEEN. Not soft here and no rot. Rebloomed only once. Discarded

TWO FOR TEA. A vigorous, reliable rebloomer here. Not soft. Sets seed easily.

WHISPERWOOD. Not soft here, but slow of increase. Needs no staking. An occasional rebloomer. Discarding.

WHITE ALONE. Same as Smith, except not tender. No rebloom.

ZULU WARRIOR. Not soft here; no rot; no rebloom. Have two rows of seedlings from it by GIBSON GIRL, expecting remontants.

This information is sent because it shows the difference that climate makes in the matter of rebloom and of rot. I have many besides these that rebloom satisfactorily in spite of our excessive rains and of the fact that matters of personal health do not allow me to fertilize, spray or very frequently divide clumps as most gardeners do. But we do have good air and surface drainage due to being located on land that slopes steeply down to the shore of Lake Washington, and there is some windbreak by large trees.

## PART II

Average mean temperatures and precipitation for the 24 years, 1931-'55.

	Jan.		Feb.		Mar.		Apr.		May		June	
	T	P	T	P	T	P	T	P	T	P	T	P
Seattle	40.0	4.75	42.5	3.95	46.0	3.16	51.3	2.13	56.7	1.89	61.2	1.54
Bloom- ington	33.2	4.02	35.2	2.70	43.5	4.28	54.6	4.07	64.6	4.29	73.9	4.87

	July		Aug.		Sept.		Oct.		Nov.		Dec.	
	T	P	T	P	T	P	T	P	T	P	T	P
Seattle	65.3	.75	65.1	.73	61.0	1.77	54.2	3.45	46.1	5.07	42.4	5.59
Bloomington	77.5	3.30	75.7	3.32	68.9	3.98	58.2	2.79	44.0	3.41	34.2	3.01

The above climate data was excerpted by your editor from official Weather Bureau reports of the U.S. Department of Commerce for your study. Please notice that in Seattle rainfall is less than 2" per month, May through September, then (including a little snowfall) fast builds up to a peak of 5.59" in December. The world renowned W.R. Dykes, of England wrote in *Country Life* July 4, 1914, "While it is undoubtedly true that the bearded species of iris do best in a heavy soil, it must not be forgotten that they all come from regions where the summers are both hotter and drier than the average English summer. This suggests a period of drought in summer, and we must therefore do our best to obtain this for them, either by planting them on sunny slopes, or, if our gardens are level, by throwing up banks or mounds where the drainage will be good, and on which the irises will consequently luxuriate." End quote. Thus Seattle summers do seem favorable for iris health.

Now let us look at the Bloomington table. Rainfall throughout all those hot months is relatively heavy, and is fairly uniform throughout the year. So if Dykes was right, and undoubtedly he was, some disease trouble would be likely in shade or in poorly drained spots. He was not considering rebloomers, however. If rebloom is to take place before early fall frosts, there must be enough moisture in late summer to enable the plants to produce stalks. Drainage is supremely important. Did you ever see the Presby Memorial Gardens in Upper Montclair, N.J? Beds were mounded high for good reason. The results were grand.

FREEZE DATA  
Seattle vs Bloomington

	Freeze threshold temperature	Mean date of last Spring occurrence	Mean date of first Fall occurrence	Mean no. of days between dates	Years of record Spring	Years of record Fall	No. of occurrences in Fall
SEATTLE	32	02-23	12-01	281	30	30	30
	28	01-23	12-18	328	30	22	30
	24	01-15	12-27	346	30	17	30
	20	01-12	12-29	351	30	14	30
	16	01-07	*	*	30	7	30
BLOOMINGTON	32	04-21	10-20	182	30	30	30
	28	04-05	11-02	211	30	30	30
	24	03-23	11-13	235	30	30	30
	20	03-12	11-26	259	30	30	30
	16	03-03	12-08	280	30	30	30

The Plant Hardiness Zone Maps being used in this study are very good. Copies may be had by sending 15¢ in coin to Supt. of Documents, Gov't. Printing Office, Washington, D.C. 20402; Misc. Publication 814.

Frosts are not a good basis for determining the beginning and ending of the growing season, a matter of prime consideration for reblooming iris enthusiasts. This is because frosts often occur when no plant damage results, and because often serious freezing takes place without visible frost. Further, iris sap is not pure water, but contains dissolved chemicals that act like the anti-freeze in our car radiators. Dr. G. Percy Brown (Mass.) and others, have observed that unopened iris buds go through 32-degree freezes without damage, though expanded blooms do suffer. It seems to us that the 28-degree threshold would be better for our use. Where data is available, as here, it will be used. Further research is needed for full accuracy.

There is a world of material for meditation in the above data. Notice, for instance, that though Seattle is one of our northernmost cities (Latitude 47 degrees, 27 minutes), it has a milder climate than places many hundreds of miles south and southeast. According to the Plant Hardiness Zone Map the average annual minimum temperatures are the same as southeastern Texas and the rest of the rain belt bordering the Gulf of Mexico exclusive of the Louisiana delta, the Florida peninsula and about six counties in the southern tip of Texas. This is because the broad Chehalis River Valley offers a low level path for entry of warm, moist bodies of air from the ocean reaching the lower Puget Sound lowlands. Most years irises can be in bloom all winter in Seattle. Notice that but once in 30 years has the temperature dropped to 16 deg. above zero, and only nine times to 24 degrees. In Bloomington (Latitude 39 and a few minutes) in 28 of the 30 years the temperature has dropped to 16 degrees; sometimes far below that. At the 28-degree threshold Seattle has a growing season of 328 days, while Bloomington's is 211 days, a difference of 117 days, - almost FOUR MONTHS. It would be a mistake to broadcast throughout the nation an arm-long list of rebloomers from any mild climate without detailed warnings of improbable performance as such of a goodly proportion of them in the more demanding climates. Hence our study. And the study itself is great pleasure. Try it yourself and be convinced.\*

## Polar Flame for Breeding

POLAR FLAME (Polar King x Autumn Flame) is a cool climate rebloomer donated to our group for propagation and sale to breeders who seek improved color and form in this class of iris. Proceeds will be used for the partial support of this publication. Subscriptions must take care of rest.

DESCRIPTION.-The color is close to lemon yellow and without veining. The flowers have good substance and perky form, the falls standing out well and the standards remaining closed. See photograph inside of the front cover. The stalks are from 20 to 28" tall, bearing 6 to 10 blooms per stalk. Rapid increase enables us to offer rhizomes this year @ \$2.50 each. POLAR FLAME is a proven parent of rebloomers in southern Indiana. In most places where tried it does not reach maximum performance until the second fall, but established clumps growing under good conditions are very floriferous and have good garden value. Tolerates rain well.

ORDERS and PROPAGATION are handled by Treasurer, Clement B. Reeves, Jr., 724 Broadway, West Cape May, N.J. 08204.

SUBSCRIPTIONS are received direct by the Editor, Edwin Rundlett, 1 Fairview Avenue, Staten Island, N.Y. 10314. Is your renewal in? Important!

REBLOOMER SEEDLING TEST GARDEN.-Clement, without remuneration, offers to try out and report on seedlings of others as to performance in his southern N.J. climate. Notify him before shipping. He provides details.

## *Special Cultural Methods for Success with Reblooming Irises*

To some of our good readers the following data may seem to be just a re-run, but proper cultural methods are so important to successful repeat bloom, that they cannot be over-emphasized. Let us first establish the basic facts.

Reblooming iris cultivars, while possessing certain inherent characteristics enabling them to repeat their bloom periods at least twice in the same growing season, will often fail to accomplish this desired result because something is lacking in their environment, or because they have not had proper care after spring blooming.

The above statement rules out those reblooming cultivars which may be growing in a location or region to which they are completely unsuited, and recognizes the fact that not all so-called rebloomers will repeat their bloom periods in all areas, under varied conditions of soil, rainfall, length of growing season and other climate factors.

This article is directly aimed at the culture of those irises which are fully capable of reblooming in the areas where they are growing, but still fail to demonstrate this capability. Herein lies the challenge to the disappointed gardeners to whom this article is dedicated, in the fervent hope that it will lead to success and to increased pleasure in growing the rebloomers.

The very first step, of course, is to thoroughly know your climate zone and local area, correcting any soil deficiencies which may exist, and carefully preparing the most favorable spot available. The number of growing days per season and the times of maximum and minimum rainfall are of great importance.

The next step, having accomplished the first, is to carefully select reblooming irises completely suited to your area, and if unable to do this without assistance, to call upon successful growers in your locality, or upon those who have growing conditions similar to your own. Honest commercial growers will also do everything in their power to recommend named reblooming varieties which they consider suitable for each local area, since they are happiest when their customers are pleased with the performance of their selections.

Every experienced grower knows that the winter-blooming types, or those starting rebloom in very late fall, are totally unsuitable for the zones of rigorous climate of our northern states or for some of the high altitudes in our mountainous states. These growers also know that those varieties whose repeat bloom starts earliest, which require a minimum of recovery time between blooming periods, are most likely to prove successful in areas where the total seasonal growing period is short, or where rainfall is insufficient for rapid development, though lack of rainfall can be remedied to some extent in most localities by irrigation.

The rules for growing the rebloomers are simply applied common sense. They are not widely different from those for the successful culture of other tall bearded irises, except that the rebloomers must have sufficient EXTRA food and moisture to produce two or more complete bloom periods in the same growing season. This is no small accomplishment, and the success thereof depends upon the amount of extra care or help supplied by the gardener. Here are some DO's and DON'T's to simplify these cultural procedures as much as possible.

DO carefully prepare the growing area well in advance of planting time, improving both the mechanical condition and fertility of the soil, establishing very good drainage, adding needed nutrient elements, and also providing adequate food for prolonged vigorous growth. Well rotted dairy fertilizer, good compost or other forms of available humus are to be added if soil is deficient in these necessities.

DO plant reblooming irises at rather wide spacing, not less than eighteen inches apart in the row, and with at least thirty inches between rows, to provide ample growing space plus admitting plenty of fresh air and sunshine. Crowding is detrimental to the successful production of repeat bloom.

DO keep your irises clean, free of injurious insects, leaf spot or other disease troubles and weeds. Check plants both above and below ground if they appear to be abnormal or are making poor growth progress. There are various for preventing or for remedying any troubles which may arise, but these will not be covered in this article. The County Agricultural Agent can usually give reliable information about them.

DO keep the soil in good tilth, cultivating shallowly so as not to cut or destroy the very necessary feeding roots near the surface. In some areas a mulch is beneficial, while in others it may become too wet and soggy or become a harboring place for injurious insects.

DO spray with foliar nutrients such as Ra-Pid-Gro, HYPONEX, FOLIUM, etc. as soon as the plants begin vigorous new growth in the spring and continuing right up to the time when the buds show color. Use mild solutions of these. A top-dressing of 5-10-10 or of 3-12-12 fertilizer may be applied AROUND the plants but not ON them, in early spring, scratching it into the soil to prevent its being washed away by the spring rains.

DO cut off all old bloomstalks as soon as spring bloom ends, cutting these level with the ground and cleaning up all dead or diseased foliage on or around the plants. Those bearing seed pods to be harvested would of course be left. This is a good time to divide and replant overgrown clumps to provide room for expected increase. A similar clean-up of spent stalks and foliage after the fall blooming period is extremely important in pest and disease control, preventing, to a large extent re-infestation and infection in the succeeding spring.

DO plant where the irises will never suffer from root competition with trees, shrubs or other plants - never close to hedges, and always in a location providing an abundance of sunshine plus free air circulation.

DO keep the iris plant's roots moist, not wet, through the hot, dry summer season in preparation for the expected rebloom in the fall. Additional foliar feeding has proved to be beneficial at this time.

DO NOT over-fertilize, over-water, nor try to force your iris plants, thus failing to allow a moderate rest period just after spring bloom. Such rest is beneficial.

DO NOT fail to inspect your planting often. If troubles are found, correct them promptly so that healthy growth will continue.

DO visit other gardens in your area and correspond with others in order to learn what methods succeed and which varieties thrive. These visits can be most enjoyable.

DO join a reblooming iris robin, subscribe to the 'REBLOOMING IRIS REPORTER, join the A.I.S.

David J. Flesh, Jefferson, Texas.

## Distribution of Rebloomer Enthusiasm

Seven years ago your scribe was appointed Division Chairman of the Remontant Iris Division of the A.I.S. letter robin family. There are now nine such robins ranging from nine to eleven members each, and he has remained a member of all of them in order to gather information for re-broadcasting in the 'Reblooming Iris Reporter' and in any other practical way. Through general agreement the term "remontant" was replaced by "reblooming", with the thought in mind that it was more generally understood, easier to pronounce, and did not change the meaning.

The reports of successes and of failures in producing rebloom with identical varieties in various parts of the country soon convinced the writer that the reblooming habit in irises involves not only hereditary tendencies but also climate variations. Annual temperature range, length of growing season, excessive heat, severe droughts, supply of moisture and its distribution over the year, snow cover, amount of sunshine, nutrient supply, pest, disease and weed control, are all factors. Heredity cannot act effectively in the absence of a favorable balance of all of these.

An intense study of climates followed, during which numerous maps of the U.S. Department of Commerce and its Weather Bureau were accumulated. Quite recently it seemed a good idea to locate our robin members on a national map so as to see at a glance the national distribution of interest. This map appears at the inner fold of this issue. Then the fact that not all good iris growers and breeders of this class of iris are fond of letter writing came to mind. So onto this same map were added the locations of all subscribers of the 1963 'Reblooming Iris Reporter'. As these had not been pressured into subscribing, it is reasonable to suppose that their interest was aroused either through seeing or hearing about reblooming irises. The composite map gives much food for thought.

The positions of these locations on this map indicate conclusively that there are vast areas in the U.S. where interest in this class of iris is nil or very low. General statements can be damaging, as there are always exceptions worthy of consideration. But such generalities can also save many disappointments. Accomplishing this was a main consideration in publishing the 'Reblooming Iris Reporter'. Reception indicates that it is fulfilling this purpose.

Those of you who still have the earlier issues may well refer to the U.S.D.A. Plant Hardiness Map reproduced on the rear cover of the January 1962 number. This issue is still available to a limited extent. See footnote on page 19. It will be seen that in zones 3 and 4, which embrace most of the northern tier of states as well as most of southern Canada and includes Montana, Wyoming, North Dakota, South Dakota, Minnesota, Vermont, New Hampshire and Maine, there is practically no interest at present. About half of Colorado is in Zones 3 and 4, and the northern half of Nebraska is in Zone 4, so belongs in the above grouping. Zone 5, as indicated in an article by Smith and Rundlett (A.I.S. Bulletin #163) as well as by this map, offers more promise, though a heartless rogueing of unfit varieties and seedlings is called for annually in a climate with average minimum annual temperatures as low as 20 degrees below zero. This is the borderland where scientific breeding brings good results but where hit-or-miss methods disappoint.

The maps show, too, that Zones 6, 7 and 8, the lower third of the U.S. except for the coastal region, are the most promising for growing

rebloomers. Zone 9, which includes a rainy belt along the Gulf of Mexico has few bearded irises of any kind. This zone includes also upper Florida where, to date, no interest has been shown. However, the corresponding area in California, which has the mild temperatures yet lacks the excessive rains, is good rebloomer country, especially the vicinity of Los Angeles and the central valley. Zone 10, South Florida is "out of bounds", but Zone 10 in arid southern California grows some rebloomers. It becomes evident from the above that excess rainfall is a factor in many failures.

Note also, next to the above map in the inner fold, the peach orchard distribution map. Peaches and irises are botanically unrelated, but the map indicates that the areas where they do well commercially are practically the same as those in which reblooming irises perform best. One finds few peaches growing in Florida or in the rain belt along the Gulf coast. As with the reblooming irises, the warmer parts of California are dominating the scene. Elsewhere one finds concentrations of peach tree production (and reblooming iris enthusiasm) in eastern Texas, eastern Kansas and Oklahoma, much of Ohio, and along the Atlantic seaboard from the Patomic River, through eastern Pennsylvania, New Jersey, southeastern N.Y., Conn. and coastal Massachusetts. Outlying concentrations of rebloomer (and peach) interest are to be found in a narrow band of country bordering Lake Ontario on the south and surrounding Lake Erie, even including southern Ontario, Canada. Strangely, land bordering Lake Michigan on the east, though having the same water-moderated climate as exists near the other great lakes mentioned, has peach concentrations but no revealed reblooming iris interest. Let us learn why, and correct this if possible. Interest is growing fast in northern and central Indiana and in a few parts of Illinois and Missouri. Little has been heard from the rain belt near the Pacific coast in northern California, Oregon and Washington. Maybe this is because of the rain excess. The "Inland Empire" of central Washington, extending possibly to western Idaho, is promising, as is also a narrow arid belt about Great Salt Lake, Utah, where irrigation is possible. It would be interesting to learn if the area of peach tree concentration in western Colorado near Grand Junction would serve our hobby well. So far, no reports have come from there.

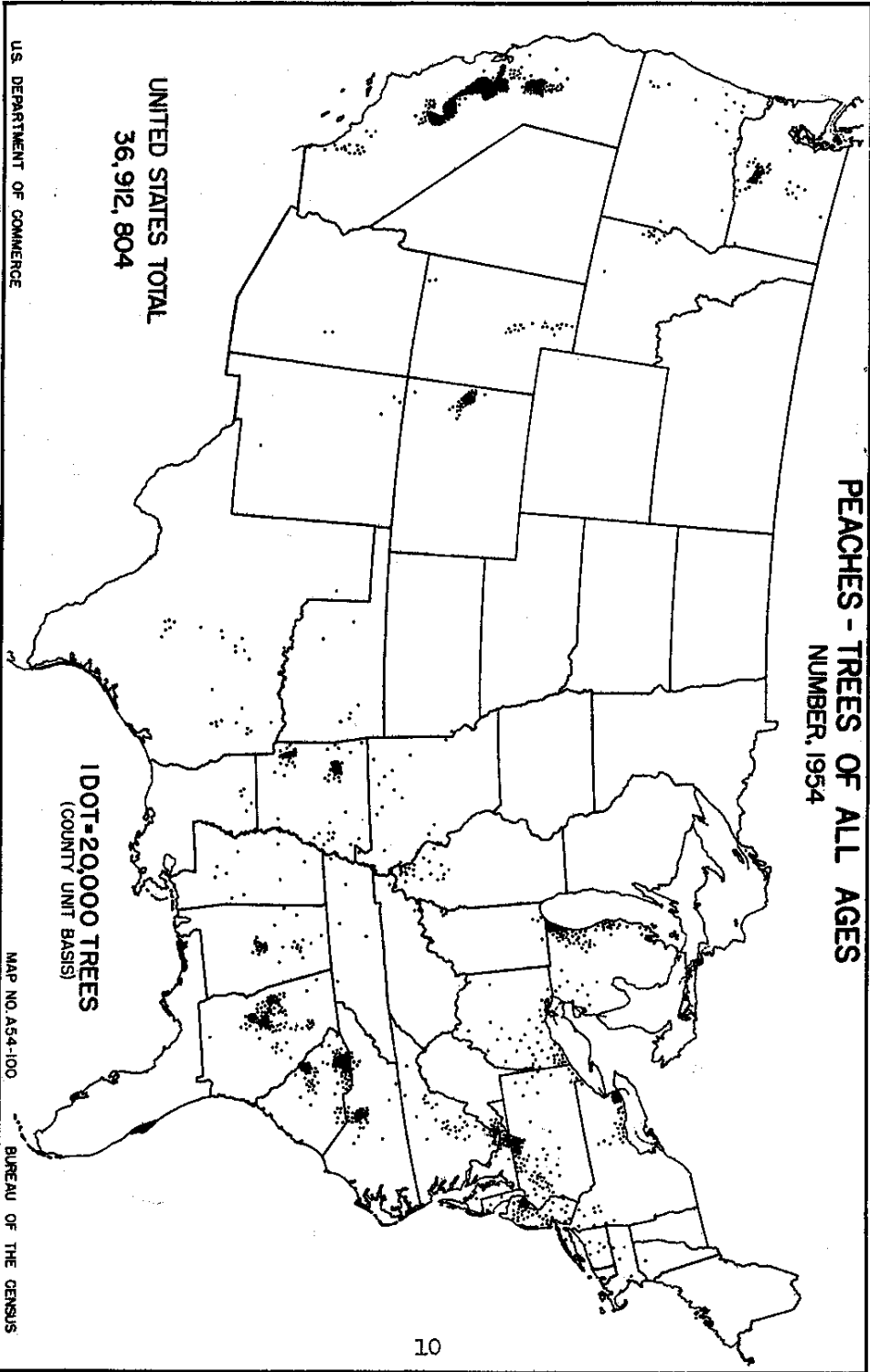
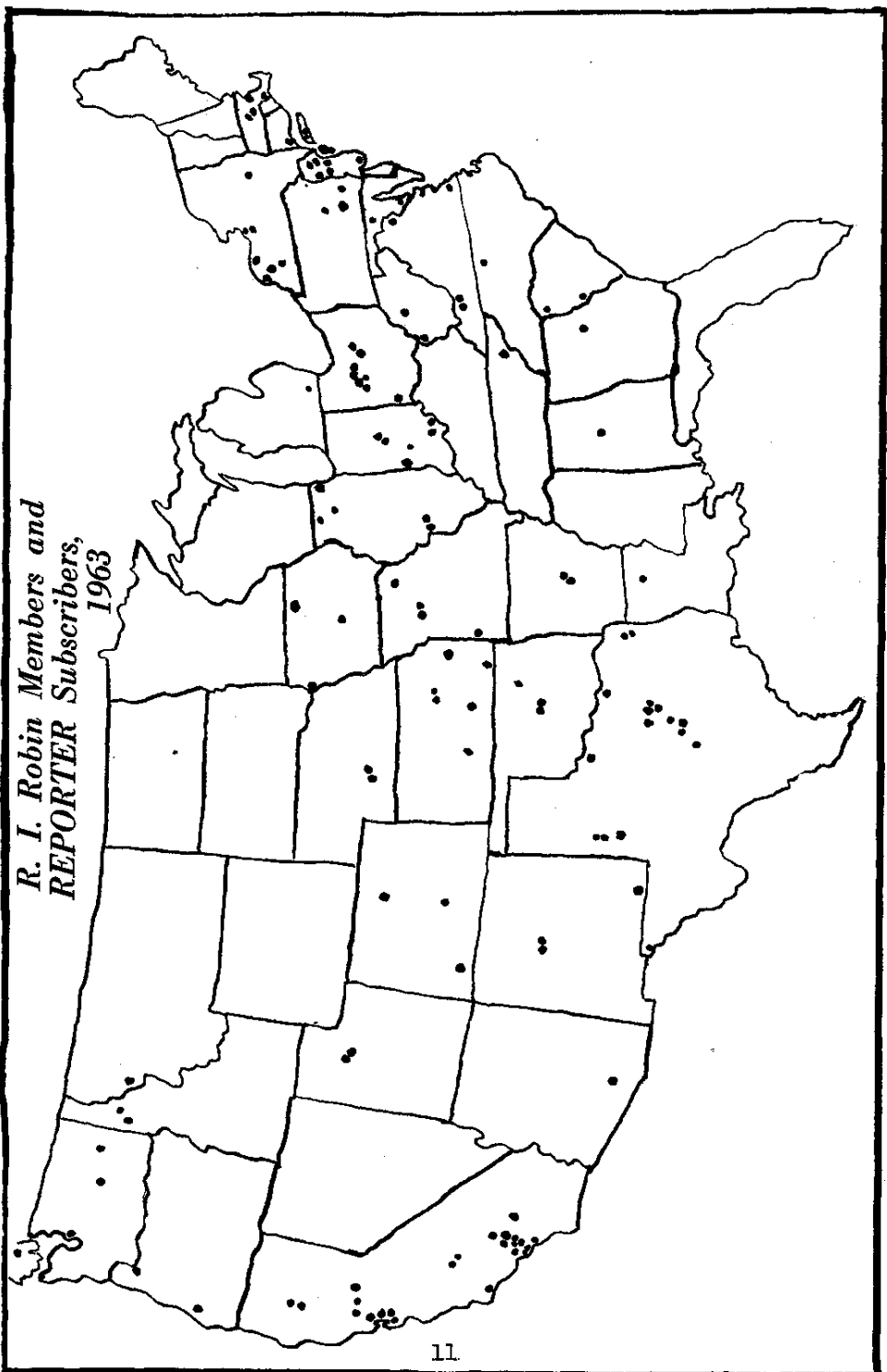
Northern Alabama, northern Georgia, northern South Carolina, south central North Carolina and Western Virginia are considered promising. But why the lag in Kentucky and Tennessee? Too much rain at wrong times? Do tell. The aridity of Nevada, Arizona and New Mexico would explain the lag there, though heroic efforts with irrigation water works wonders where the soil is good, even where temperatures are high and the sky almost cloudless.

Let's keep up the good work, generating interest and reporting the results of our efforts so that future growers will not have the disappointments we had in our first efforts. The rosarians have overcome their initial difficulties. So can we.

Your Editor.

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P.S. Within our group there are people capable of giving talks of educational nature to garden clubs about reblooming irises if only they had slides to illustrate their talks. To aid such speakers and such clubs a color-slide library has been started by David J. Flesh, Box 491, Jefferson, Texas, 75657. Why not snap two instead of just one, and send the extra one to him to foster the project? In time (not yet) sets could be rented out for a modest sum to still further improve our publication.



## Rebloomers According to Climate

We have no way of judging the future except by looking into the past. The present is tricky and ever changing. The year 1963 followed one of the most severe winters in history, and in many parts of the U.S. there were record breaking droughts that delayed rebloom until frost time. Any iris varieties that bloomed both spring and fall that year are promising as breeding stock (if fertile) or as selections for garden use in the climates where so reported.

However, it would be unfair to many lovely reblooming iris varieties if they were condemned because of failure to bloom twice in this abnormal year. Hence they were by-passed in silence this time. Maybe next year will be normal. Stay with us and get the long range story.

The following reports summarize the findings of those of Lloyd Austin's testers who agreed to continue their observations, plus those of other volunteers who used the same report forms, supplied by your Editor. To simplify things "spring" was considered as beginning in mid-winter, and "fall" as beginning in mid-summer and extending to the end of the year. Irises do not read the calendar but are governed as are the birds, by warmth, sunlight and moisture. They breed and "flower" accordingly.

In the tables (DB) means Dwarf Bearded, and (IB) means Intermediate Bearded. Notice that these have greater range northward in cold areas than the tall. Could it be that the sterility (lack of energy drain by seed production) in most of the intermediates (tall x dwarf) gives them greater vigor and hardiness, as with capons and mules? Think it over.

Further data of this same sort can be found in the July 1963 Re-blooming Iris Reporter' on pages 30 - 33. Many thanks to the reporters.

| Variety                                      | Comments                                                                              | Start of Blooming |       |
|----------------------------------------------|---------------------------------------------------------------------------------------|-------------------|-------|
|                                              |                                                                                       | Spring            | Fall  |
| <u>ARKANSAS, Pulaski County</u>              |                                                                                       |                   |       |
|                                              | "Nothing to report. Last year I had 17 fall bloomers. None this year due to drought." |                   |       |
| <u>COLORADO, Boulder County</u>              |                                                                                       |                   |       |
| AUTUMN DELIGHT                               | (Stalks were maturing on                                                              | 5/8               | 9/30  |
| AUTUMN TWILIGHT                              | WESTERN HILLS, BLACK MAGIC                                                            | 5/10              | 10/10 |
| DOUBLE DUTY                                  | (IB), JULY BEAUTY & GAY PAL                                                           | 5/5               | 10/27 |
| SEPTEMBER SPARKLER                           | when frozen October 31)                                                               | 5/5               | 10/27 |
| <u>IOWA, Boone County</u>                    |                                                                                       |                   |       |
| SANGREAL (IB)                                |                                                                                       | 5/6               | 9/23  |
| LIEUT. DE CHAVAGNAC                          | Many both spring and fall.                                                            | 4/23              | 9/24  |
| WHITE AUTUMN KING (DB), same as FROST QUEEN. |                                                                                       | 5/3               | 10/19 |
| <u>MINNESOTA, Redwood County</u>             |                                                                                       |                   |       |
| AUTUMN ELF (IB)                              |                                                                                       | 5/22              | 8/9   |
| BLUE MASCOT (DB)                             | (Please note: This                                                                    | 5/20              | 10/10 |
| FALL PRIMROSE                                | report was for                                                                        | 5/29              | 8/27  |
| JULY BEAUTY                                  |                                                                                       | 5/28              | 8/22  |
| PAPOOSE (DB)                                 |                                                                                       | 5/2               | 10/14 |
| SANGREAL (IB)                                | 1962, before the                                                                      | 5/19              | 10/11 |
| SEPTEMBER SPARKLER                           |                                                                                       | 5/14              | 10/13 |
| TWO FOR TEA (MTB, Table Iris)                | hard winter)                                                                          | 5/30              | 9/12  |

| Variety                         | Comments                                                                     | Start of Blooming |              |
|---------------------------------|------------------------------------------------------------------------------|-------------------|--------------|
|                                 |                                                                              | Spring            | Fall         |
| <u>MISSOURI, Carroll County</u> |                                                                              |                   |              |
| ELEANOR ROOSEVELT (IB)          |                                                                              | 5/8               | 9/15         |
| AUTUMN DELIGHT                  |                                                                              | 4/28              | 9/30         |
|                                 | (AUTUMN ELF (IB) and AUTUMN TWILIGHT usually repeat, but very dry this year) |                   |              |
| <u>MONTANA, Mineral County</u>  |                                                                              |                   |              |
| SPRING SKIES (DB)               | (Both bloomed 3 times. Not worth keeping in spring, but gorgeous in fall!)   | April             | Aug. & Sept. |
| SOUTHLAND (IB)                  |                                                                              | May               | Sept.        |
| <u>NEBRASKA, Dawson County</u>  |                                                                              |                   |              |
| AUTUMN TWILIGHT                 |                                                                              | 5/8               | 8/2          |
| BEAU CATCHER                    | (Reporter says no fertilizer used since planting)                            | 5/9               | 7/23         |
| BLUE SURPRISE                   |                                                                              | 5/9               | 10/12        |
| CAYENNE CAPERS                  |                                                                              | 5/18              | 10/15        |
| LUSCIOUS                        |                                                                              | 5/11              | 10/1         |
| <u>NEW MEXICO, Eddy County</u>  |                                                                              |                   |              |
| AHME                            | Blooms too late.                                                             | 4/15              | 11/1         |
| APRIL SHOWERS                   | Extra good but late.                                                         | 4/15              | 11/1         |
| AUTUMN DELIGHT                  | Reliable in fall.                                                            | 4/25              | 10/1         |
| AUTUMN ELF (IB)                 | Rebloomed every year.                                                        | 4/20              | 10/20        |
| AUTUMN SNOWDRIFT                | Reliable in fall.                                                            | 4/20              | 10/1         |
| AUTUMN TWILIGHT                 | Heaviest rebloomer.                                                          | 4/25              | 10/1         |
| BLUE RIVER                      | Blooms too late.                                                             | 4/10              | 11/10        |
| BLUE SURPRISE                   | This is a good one.                                                          | 4/10              | 10/15        |
| COLOR RIOT                      | Blooms too late.                                                             | 4/15              | 11/10        |
| ELEANOR ROOSEVELT (IB)          | Reliable fall bloomer.                                                       | 4/10              | 10/1         |
| ENCORE (BB)                     | " " "                                                                        | 4/15              | 10/1         |
| ETHEL PECKHAM (BB)              | Not reliable here.                                                           | 4/25              | 11/1         |
| FAIR ENOUGH                     | " " Too late.                                                                | 4/10              | 11/10        |
| FIREBRIGHT                      | Established clumps only.                                                     | 4/5               | 11/1         |
| GIBSON GIRL                     | One of the best rebloomers.                                                  | 4/15              | 10/1         |
| HAPPY BIRTHDAY                  | Very good, but has bad yrs.                                                  | 4/10              | 10/1         |
| JOSEPH'S MANTLE                 | Sometimes late.                                                              | 4/10              | 10/1         |
| KING'S CHOICE                   | Good but at times late.                                                      | 4/15              | 11/1         |
| LADY MOHR                       | Superb quality. Some yrs. late.                                              | 4/10              | 11/10        |
| POIS CRAIG                      | Extra good, " " "                                                            | 4/10              | 10/1         |
| NAPPANEE                        | Reliable rebloomer.                                                          | 4/10              | 9/1          |
| OCTOBER SHADOWS                 | " " "                                                                        | 4/15              | 10/1         |
| PERSIAN PATTERN                 | Not reliable. Too late.                                                      | 4/10              | 11/10        |
| SANGREAL (IB)                   | Almost everblooming.                                                         | 4/5               | 10/1         |
| SAVAGE                          | Not reliable. Too late.                                                      | 4/15              | 11/10        |
| SEPTEMBER SPARKLER              | Reliable rebloomer.                                                          | 4/10              | 10/1         |
| STEEPLECHASE                    | Extra good, too late to be reliable.                                         | 4/15              | 11/1         |
| THANKSGIVING FIRELIGHT          | Good in warm falls only.                                                     | 4/10              | 11/1         |
| THE CAPITOL                     | Reliable Rebloomer.                                                          | 4/10              | 10/1         |
| ULTRA (IB)                      | " " "                                                                        | 4/10              | 10/1         |
| WESTERN HILLS                   | Reliable but late.                                                           | 4/15              | 11/1         |

Tester's remarks: "Our section of the country in this S.W. desert has quite a few drawbacks, and growing flowers is not for the easily discouraged, faint hearted soul. Our elevation is 3100 feet, average rainfall 6 to 9" per year. We have to irrigate (flood) irises every week in summer when temperatures rise almost daily to 100 to 106 degrees. In winter we water every two weeks. Soil is a thin, heavy adobe layer over



caliche rock; no subsoil. The water is highly alkaline, making it absolutely necessary to use iron sulfate (or Chelate) and sulphur every year to keep the pH (acidity) at plant tolerance level." \* \* \* \* \*

Ed:- This report is one of the best to pass over my desk in 1963, and I am exceedingly grateful. It should be helpful to many irisarians in New Mexico, Arizona, Southern California, Western Texas, parts of Oklahoma, and other arid places where irrigation water is available. Possibly Australians and South Africans could use it too. To assume that all of these varieties will act as rebloomers in the northern half of the U.S. east of the Rockies would be a mistake. It just isn't so. All have been tried and a large proportion of them will not. To avoid disappointments varieties must be divided into lots proven to be dependable for definite climates. A start has been made. But let us proceed with our tabulating.

| Variety                        | Comments                     | Start of Blooming |         |
|--------------------------------|------------------------------|-------------------|---------|
|                                |                              | Spring            | Fall    |
| <u>NEW YORK, Nassau County</u> |                              |                   |         |
| AUGUST WAVES (IB)              | Very dependable              | 5/4               | 10/29   |
| FALL PRIMROSE                  |                              | 5/20              | 10/6    |
| GIBSON GIRL                    | No doubt about success here. | 5/18              | 9/6     |
| JULY BEAUTY                    | " " " " "                    | 5/15              | 9/7     |
| OCTOBER BEAUTY                 |                              | 5/31              | 10/1    |
| SEPTEMBER SAILOR               |                              | 5/22              | 1 stalk |

Ed.- This is a combination of two reports from the same county. There was an exceptionally early frost September 23rd which reduced the number that could be reported successful. SEPTEMBER BUTTERCUP, reported to have an exceptionally fine bloom, almost made it. One of the gardeners said that if it had been possible to water during summer drought, the list would have been longer. There were municipal water restrictions.

|                                     |                                        |      |       |
|-------------------------------------|----------------------------------------|------|-------|
| <u>NORTH CAROLINA, Alamance Co.</u> |                                        |      |       |
| JEAN SIRET (DB)                     | July blooms too.                       | 3/27 | 9/18  |
| BOUNTIFUL BLUE (IB) (unregistered)  | Summer bloom too.                      | 4/5  | 9/3   |
| MISHAWAKA                           |                                        | 4/22 | 9/11  |
| POLAR KING                          | Still blooming Dec. 8                  | 4/10 | 8/10  |
| JOSEPH'S MANTLE                     |                                        | 5/3  | 10/17 |
| JULY BEAUTY                         |                                        | 5/2  | 8/10  |
| AUTUMN BRONZE                       |                                        | 5/1  | 9/1   |
| AUTUMN SNOWDRIFT                    |                                        | 4/26 | 9/2   |
| MENOMINEE                           |                                        | 4/26 | 10/2  |
| BLUE SURPRISE                       |                                        | 5/3  | 10/17 |
| SUMMER SURPRISE                     |                                        | 4/28 | 9/1   |
| OCTOBER SHADOWS                     |                                        | 4/18 | 10/1  |
| GREEN DRAGON                        |                                        | 4/20 | 10/1  |
| GOLDEN CATARACT (IB)                |                                        | 4/1  | 10/7  |
| SANGREAL (IB)                       |                                        | 4/18 | 10/1  |
| SEPTEMBER SPARKLER                  | Took to Fair Oct. 16th.                | 4/12 | 9/10  |
| GIBSON GIRL                         | In bloom July 18 to Dec. 1             | 4/20 | 7/18  |
| SOUTHLAND (IB)                      | A short summer stalk.                  | 4/1  | 10/30 |
| AUTUMN PRINCESS                     |                                        | 5/3  | 10/20 |
| SMOOTHY (IB)                        | 3-month bloom. Some bloomed out.       | 4/10 | 10/3  |
| BLACK MAGIC (IB)                    | On bank. Blooms much. No feeding.      | 3/26 | 12/1  |
| AUTUMN KING                         | Blooms all summer.                     | 4/20 | 12/1  |
| SUREFIRE (IB)                       | Also on bank. Practically everbloomer. |      | 12/1  |

\*\*\*

(continued next page)

To prevent rotting of podded bloomstalks, strip off the leaves on them immediately after pollination. These collect rain water and shelter aphids and other pests.-Ed.

| Variety                                                                                                                                                                                                                                        | Comments | Start of Reblooming |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------|-------|
|                                                                                                                                                                                                                                                |          | Spring              | Fall  |
| <u>OHIO, Ashland County</u>                                                                                                                                                                                                                    |          |                     |       |
| BOUNTIFUL BLUE (IB)                                                                                                                                                                                                                            |          | 5/15                | 9/10  |
| To show you the effects of an abnormally late freeze in spring, the following are listed that bloomed in the fall but not in the spring, though they usually bloom both times. The freeze came May 23rd. after an exceptionally severe winter. |          |                     |       |
| AUTUMN AFTERNOON                                                                                                                                                                                                                               |          | None                | 8/15  |
| AUTUMN BRONZE                                                                                                                                                                                                                                  |          | "                   | 9/23  |
| AUTUMN DELIGHT                                                                                                                                                                                                                                 |          | "                   | 9/7   |
| AUTUMN TWILIGHT                                                                                                                                                                                                                                |          | "                   | 10/10 |
| DOUBLE DUTY                                                                                                                                                                                                                                    |          | "                   | 10/10 |
| FALL PRIMROSE                                                                                                                                                                                                                                  |          | "                   | 9/10  |
| JULY BEAUTY                                                                                                                                                                                                                                    |          | "                   | 9/20  |
| NAPPANEE                                                                                                                                                                                                                                       |          | "                   | 9/23  |
| OCTOBER SHADOWS                                                                                                                                                                                                                                |          | "                   | 10/10 |
| SUMMER SURPRISE                                                                                                                                                                                                                                |          | "                   | 10/25 |

|                               |                            |      |       |
|-------------------------------|----------------------------|------|-------|
| <u>OREGON, Douglas County</u> |                            |      |       |
| AUGUST WAVES (IB)             |                            | 5/26 | 8/15  |
| AUTUMN SNOWDRIFT              | Very tall and lovely.      | 5/8  | 8/9   |
| AUTUMN TWILIGHT               | All bloomed 3 times.       | 5/18 | 7/22  |
| ETHEL PECKHAM                 | Exhibition stalks.         | 5/25 | 7/29  |
| GIBSON GIRL                   | All bloomed same time.     | 5/19 | 8/17  |
| NAPPANEE                      | Some rot.                  | 5/22 | 8/6   |
| SANGREAL (IB)                 | 5 increase. All bloomed.   | 4/27 | 8/16  |
| SUREFIRE (IB)                 | 11 increase. Most bloomed. | 5/7  | 10/22 |

All were cut back during the last two weeks of August and replanted. All still had bloomstalks on them then.

|                                                                                                                                                                                                                                                                                                                                                                                                       |  |      |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------|------|
| <u>UTAH, Salt Lake County</u>                                                                                                                                                                                                                                                                                                                                                                         |  |      |      |
| FALL PRIMROSE                                                                                                                                                                                                                                                                                                                                                                                         |  | 5/20 | 8/31 |
| Note: This tester claimed that he used no fertilizer at any time; new topsoil used. He adds that OCTOBER SHADOWS, NAPPANEE, SEPTEMBER SPARKLER, PERSIAN PATTERN, YACHT CLUB and MEMORIES bloomed 5/15 - 5/25, but NOT in the fall, and that after May blooming GIBSON GIRL, and JULY BEAUTY almost made it. A new bed was started in September with some that might have rebloomed. Food for thought. |  |      |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |      |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------|-------|
| <u>ONTARIO, CANADA, Oxford Co.</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |      |       |
| AUTUMN BRONZE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | 5/29 | 10/20 |
| (We'll lapse into prose again to enable our readers to picture the situation in southern Ontario. The tester's wording cannot be improved. "Our group of rebloomers is small (being a home garden plot). Fifteen varieties were received in 1961 for testing. The first fall, 1961, we had two rebloom, AUTUMN BRONZE and AUTUMN AFTERNOON. Last year, 1962, saw seven rebloom: AUTUMN SUNSET, AUTUMN BRONZE, PERSIAN PATTERN, AUTUMN TWILIGHT, GIBSON GIRL, AUTUMN AFTERNOON and OCTOBER SHADOWS." |  |      |       |

"The winter of 1962-63 was one of the hardest killers we have had in 20 years, frost going below the 4-foot depth in our area and killing many iris plots. The demonstration and test plots in the Canadian Iris Society plantings in Hamilton (where the A.I.S. Convention was held) were nearly cleaned out by frost. Our plot lost nearly all the spring bloom buds, though our rhizomes looked O.K. and came back well after we cut out the frozen toes. However, our fall rebloom suffered."

## Concentrated Climatology

| State    | County    | Growing<br>Seas. | Jan.<br>Mean<br>Temp. | July<br>Mean<br>Temp. | Annual<br>Mean<br>Temp. | August<br>Mean<br>Precip. | Annual<br>Mean<br>Precip. |
|----------|-----------|------------------|-----------------------|-----------------------|-------------------------|---------------------------|---------------------------|
| Ark.     | Pulaski   | 272              | 41.8                  | 81.9                  | 62.4                    | 3.15                      | 47.38                     |
| Colo.    | Boulder   | 179              | 32.5                  | 73.6                  | 51.6                    | 1.69                      | 18.29                     |
| Iowa     | Boone     | 163              | 21.1                  | 76.6                  | 49.7                    | 4.6                       | 32.77                     |
| Minn.    | Redwood   | 172              | 14.3                  | 74.9                  | 45.9                    | 2.93                      | 23.45                     |
| Mo.      | Carroll   | 214              | 29.8                  | 81.2                  | 55.7                    | 4.09                      | 37.83                     |
| Mont.    | Mineral   | 130              | 24.5                  | 67.3                  | 45.7                    | .72                       | 15.91                     |
| Nebr.    | Dawson    | 169              | 25.4                  | 77.2                  | 51.2                    | 2.43                      | 19.59                     |
| New Mex. | Eddy      | 237              | 45.4                  | 78.7                  | 62.9                    | 1.47                      | 12.34                     |
| N.Y.     | Allegany  | 143              | 24.0                  | 67.7                  | 45.4                    | 3.28                      | 36.10                     |
| N.Y.     | Nassau    | 194              | 33.0                  | 75.9                  | 53.9                    | 4.27                      | 40.38                     |
| N.C.     | Alamance  | 238              | 39.0                  | 77.2                  | 58.1                    | 4.71                      | 42.49                     |
| Ohio     | Ashland   | 175              | 28.9                  | 72.4                  | 50.1                    | 3.51                      | 35.61                     |
| Oregon   | Douglas   | 297              | 39.5                  | 67.2                  | 53.1                    | .32                       | 30.50                     |
| Utah     | Salt Lake | 232              | 26.5                  | 76.6                  | 51.3                    | .97                       | 14.74                     |
| Wash.    | King      | 328              | 40.0                  | 65.3                  | 52.7                    | .73                       | 34.78                     |
| Ind.     | Monroe    | 211              | 33.2                  | 77.5                  | 55.3                    | 3.32                      | 44.04                     |

Several Reblooming Iris Robin members of long experience in this game have remarked that each issue of the 'Reblooming Iris Reporter' is better than the one that went before. May it ever be thus. The above table differs in some respects from the one that appeared on page 33 of the July 1963 issue. Here are the reasons for the changes. The iris is so tolerant of extremes of temperature that it seemed to the writer that maximum and minimum temperatures would be less significant in variety selection for hardiness than temperature means (averages), so the switch was made.

A number of veteran growers of reblooming irises have observed that in the fall bloomstalks will survive a few drops in temperature to 32 degrees and then go on producing flowers for several weeks. We must remember that cell sap is not pure water, but has a lower freezing point than pure water. It was felt that 28 degrees would be a better threshold point for figuring the length of growing seasons. So in the above table the figure represents the number of days between the last 28-degree freeze in spring and the first such freeze in the fall.

Indiana data was placed directly after that for Washington for more ready comparison. Read the other articles in this issue and you will understand why. The Minnesota data was given here, even though it was for 1962. This was because of a regretted clerical error that was made in the July issue. It will be interesting to learn what the 1963 results were in that cold country.

The climate information was taken from official reports of the Weather Bureau of the U.S. Department of Commerce. When published data for a small town was found not to exist, data for the nearest town for which data is published was used. We must recognize the fact that even within a single town, valley, community or dooryard minor differences in climate exist. Read what Doc Percy Brown has written about choosing planting sites within your own garden. But generalizations can be of great help. When we assemble several hundred of these tables we will be in a position to group iris varieties according to the climates best suited for them. This act should, to a large extent eliminate the annual weeping about failures.

Your Editor

## Culture of Reblooming Irises

by Dr. G. Percy Brown

Reblooming irises need the best culture to rebloom early and well. The iris bed should be in good soil which has not grown irises before. In my climate the bed should be protected from west and north winds and have full sunlight morning and afternoon. Afternoon sunlight is the more important. Air drainage should be good in order to prevent early frosts.

Nearby trees can be harmful because of shade and of root competition. Some trees, such as the locust, have small leaves, so don't interfere too much. Tall, old oaks grow slowly and are deep rooted, so aren't bad. Ash, maple and most large-leaved sorts cast too much shade for irises to grow well near them.

A light soil with plenty of humus is ideal. If alkaline it should be only slightly so, and if acid, only slightly so. My soil is a mixture of white clay and gravel left by prehistoric glaciers. It is very acid and needs about four tons per acre of limestone to neutralize the acid.

I will now describe my best location for rebloomers. Our old barn yard has a high stone wall on its west side. The steers formerly kept here were thus protected from the west wind. East of this yard was a manure cellar that received manure from 4 or more cows. Drainage from this stored manure flowed west 20 feet or more, enriching this part of the yard. This enriched soil was plowed for the newest iris planting and the rhizomes were planted in a row running north to south.

In further preparation of the bed for planting, 4 inches of old manure were put down a foot and then a handful of 5-10-10 fertilizer per square foot was added. Then unfertilized clean soil was added so that there would be at least two inches of this soil between the fertilizer and the iris roots. The rhizomes themselves were placed very close to the surface with roots down. The rhizomes were 10 inches apart in the row; rows to be far enough apart for power cultivation.

The rebloomers at the above location bloom earliest. There is a morning shadow from the wall but full sun afternoons until sunset. But my small seedlings are on an open slope north of the barn and sloping to the west. This gives good air drainage that keeps off early frosts. Here there is full exposure to sun and wind. These exposed seedlings must perform satisfactorily or be destroyed, a means of selecting the fittest for further use.

One conclusion from this is that several spots in the garden should be tried in deciding where to place a bed for rebloomers. Another is that new soil might be brought in and used where exposure, shelter, air and water drainage, etc., are best.

As to care, less watering will be needed if the soil is enriched with plenty of humus and fertilizer. Shallow cultivation after each rain and after each watering leaves a dry top soil or dust mulch that slows evaporation. The addition of some liquid fertilizer in the water when you water every two weeks in July and August helps, in this climate and soil.

One year I dug around a clump of AUTUMN TWILIGHT irises, raised the roots and soil up 3 or 4 inches and placed 5-10-10 fertilizer under these outside roots. This clump had 7 or 8 stalks in September although it was a 4-year clump. A 5-10-10 formula is best here for such use. Too much nitrogen results in too much leaf growth. In excessively rich soil

many sorts will bloom themselves out in the fall leaving no rhizomes large enough for producing spring blooms, thus halting spring hybridizing.

Another year I had extra cattle manure on the ground between the iris clumps. Rains leached nutrients from this that stimulated rebloom. I've been told that Lloyd Austin used di-ammonium phosphate in his irrigation water with good rebloom resulting.

Experience with named rebloomers over a long period of years has taught me that each variety has a general time for rebloom to start, and that site, soil, water supply and cultural practices can alter earliness of rebloom in any particular year. Two-year clumps start their rebloom earliest. Inheritance has a large part in determining how well a rebloomer will rebloom, but without good care few, if any, will do so.

Ed:- The planting described by Doc Percy, the veteran rebloomer hybridizer who needs no introduction to robin members, is located at 1603 Main Road, Central Village, Mass. 02711. Winter address, Barre Mass. 01005

## On Selecting Parents by Raymond G. Smith

The unusual premium placed upon iris plant performance by the fact of twice blooming, requires that it be extraordinarily hardy, vigorous and disease resistant. Consequently, to select as parents those plants showing tendencies to soft rot is to invite trouble. I like a plant that stays green and vigorous throughout the growing season with a minimum of spotting. In general all center leaves of a fan should be green to the very tips. Normal rhizome growth requires that the side leaves die back and turn brown, but such should be confined to the side leaves, and these should die from the tips down and without full length discoloration along one edge only. Since the green leaves manufacture food for rebloom, a fan with from nine to twelve functional leaves is desirable. Tightly laced fan bases are preferable, as loose cupped leaves can hold quantities of water which, in cultivated ground in summertime will be splashed full of soil impregnated with Erwinia carotovora and Didymellina macrospora, to mention but two common disease agents.

To maintain itself the plant must possess sufficient vigor to produce an increase or two on the blooming rhizome. On the true rebloomer, spring increases bloom the same fall and the fall increases bloom the following spring. The plant must be sufficiently hardy that these new fall increases maintain continuous development in order to be ready to bloom in the spring. This new growing tissue must not freeze back. When these conditions have been met, the hybridizer may turn his attention to all the other desirable qualities of good iris parents. \* \* \* \*

Ed:- Professor Smith's Bloomington, Indiana iris planting is ample proof of the wisdom of the above comments. Many enthusiastic reports have reached your editor regarding the vigorous appearance of the iris plants in that hybridizer's garden.

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The more rebloomer performance reports received by the Editor, the more dependable will be the listing of varieties fit for any particular climate. It is not enough to state that an iris blooms in the fall. That proves nothing. Send to your Editor a request for report forms that help in assembling all the necessary data. No charge. Volunteered manuscripts are much desired too. Let's pyramid our experiences in growing and breeding rebloomers. The whole world is interested. Education is fun!

## A Report from England by Maurice Peach

The English Reblooming Round Robin having failed to return in time to meet the needs of the 'Reblooming Iris Reporter', I am compelled to make a one-man report. Following upon a dull, dampish autumn there is a considerable amount of leaf spot. Apart from this the autumn has been my most successful to date, at least as far as seedlings are concerned. My imported named American rebloomers produced neither summer nor autumn bloom.

My most successful seedling to date is B66/60/1, from Dr. G. Percy Brown's seed. The breeding is FALL PRIMROSE X (SNOW CARNIVAL X SEPTEMBER GLEAM). At 12 months from sowing it first bloomed in November 1961 and has bloomed twice a year since. I set seed on it this summer with pollen from a good deep yellow seedling from (SEPTEMBER BUTTERCUP X FALL LEMONADE). This July I split the clump into two, and beginning in early Aug. the two produced a total of 9 spikes to the end of September, plus two rhizomes given to a friend at lifting time, each of which produced a spike within six weeks of transplanting! Here I feel that I have the foundation stock with which to breed irises which have sufficient hardiness and vigour to rebloom reliably in England. The yellow bloom lacks substance in the falls and I have in mind to cross it with CLIFFS OF DOVER and a ROSEDALE X MARY RANDALL seedling, both of which have outstanding substance.

B8/60/2 (AUTUMN TWILIGHT X LAPAM'S MAUVE) x (SUMMER SURPRISE) and two sibs: B13/60/A and 1 (SEPTEMBER BUTTERCUP X FALL LEMONADE) all have one or two spikes showing color at the time of this report (Nov. 12). They also bloomed twice last year.

Other crosses reblooming for a second consecutive year are two I. aphylla seedlings, A60/5 and A60X/2, both medium deep blue, 10" high from English stock. I managed to set seed on the summer bloom of A60/5 with pollen from GREEN SPOT, and have the seed sown.

From this report it will be seen that I am beginning to acquire a nucleus of reliable English rebloomers from American and English stocks and I hope to produce from them seedlings of equally reliable traits and better blooms. Quality is the next goal.

My experience with named American remontants leads me to believe that I am more likely to achieve success in our climate with seedlings, for they seem far more adaptable, and after the rigorous winter we experienced last year, all of those mentioned have proved their hardiness and adaptability, for we have not experienced a very good summer, sunshine being conspicuous by its absence.

(Ed.- Maurice Peach, at the request of the British Iris Society, directs the Reblooming Iris Robin there. He lives at 34 Silver Street, Buckden, Huntingdon, England. This is in east central England. Thanks Maurice)

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The first four issues of The Reblooming Iris Reporter are collectors' items already! As long as the stock lasts your Editor makes the following package offer: A set of 4, \$1.50; Nos. 2, 3 & 4, \$1.00; Nos. 3 & 4, .60; No. 4 only, referred to in Carol Ely Harper's article in the current issue, 25¢ only, a give-away - almost. Buying these will help add pages to later issues. Much worthwhile material was crowded out of this issue.

## A Report from Australia

by Lois Hale

Before beginning this report on 1963 rebloom and out-of-season bloom, it seems best to remind your readers of the differences between the seasons here and those in the northern hemisphere. Our summer is Dec., Jan., and Feb.; autumn: Mar., Apr., and May; winter: June, July and Aug., spring: Sept., Oct. and Nov. At times the dwarfs begin even in late August.

Dwarfs and Medians. The dwarfs were terrible this year, but a few are reblooming now, 27th October. I get quite a lot of bloom early and then again with the falls. HAPPY THOUGHTS blooms twice. I have also some from the Median Iris Society seeds blooming now. Thanks to Phyllis Holtz.

POGO and RED GEM 4th Jan., SULINA 9th May and bloomed itself out. KEEPSAKE 20th May. My usual dwarf winter bloomers failed, I say owing to winter conditions not suiting them this year. YELLOW FRILLS, FAIRY and ROSE MIST are coming up to rebloom, having bloomed weeks ago in Sept.

Tall Bearded Irises. MIOGEM 16th June, 1st Oct.; STEP UP 4th June; BRONZINO 23rd Jan., 16th Oct., PARTY DRESS Jan, and going to rebloom; BALLERINA 21st April, 20th Oct. out of last two fans. SAVAGE 30th April and RADIANT 26th May are going to rebloom. SULTAN'S ROBE 7th June, 16th Oct.; PARAGON 7th June, 20th Oct.; GOLDEN BOW 5th June, 5th Oct.; CHIVALRY 7th July, 22nd Oct.; SAN PASQUAL 23rd July to 14th Sept., then again Sept 25th and still blooming as I write. This is definitely its best year. It is, however, a good grower.

MIOGEM, BRONZINO, CHIVALRY and SULTAN'S ROBE just keep going with fans. I think that these will eventually bloom out, also SAVAGE. Of other irises which rebloom, MT. TIMP increased such a lot but died right down and for the last fortnight has been just a mass of flowers. It is a good grower and bloomer.

Through the kindness of Esmond Jones, several shorter reports were forwarded from various parts of southeastern Australia. In West Ryde LADY MOHR, FINEST HOUR and SOUSANN rebloomed well. Mr. Rundlett feels that this last must be the SOUSUN of the American Iris Society, an Essig origination in California. From Bendigo we learn of repeat bloom by CHINA MAID, GIBSON GIRL, MIOGEM and JOSEPH'S MANTLE. The latter also did so in Caura. From Deniliquin came an announcement that SAVAGE did well. It set seed by ORANGE GLINT in an effort to produce intermediate rebloomers.

From South Australia came the following interesting table:

|                                                                |                    |                |                   |
|----------------------------------------------------------------|--------------------|----------------|-------------------|
| ROYAL BAND                                                     | Nov. '62           | July '63       |                   |
| FLAME KISS                                                     | Oct. '62           | May '63        |                   |
| SPECKLED BIRD                                                  | Oct. '62           | May '63        |                   |
| BRIGHT WISH                                                    | Oct. '62           | May '63        |                   |
| LINA BETH                                                      | Oct. '62           | May '63        |                   |
| ALPENROSE                                                      | June '61           | June '62       | Nov. '62 June '63 |
| PERSIAN PATTERN                                                | Nov. '60           | May '61        | Nov. '61          |
|                                                                | Jan., Feb., March, | April, May '62 |                   |
|                                                                | Nov. '62,          | June-July '63  |                   |
| JOSEPH'S MANTLE. On 8 clumps bloom can be had from May to Dec. |                    |                |                   |

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## Iris Joy Extended

by Muriel Coombs

During 1962 I ordered 8 varieties of remountant irises from Dr. G. Percy Brown and planted them in a single bed about 4' x 5' following his directions, except that the bed receives 2 to 4 hours of shade at mid-day and that I did no watering until the middle of August. Both things delayed fall bloom.

Having lost the spring blooms due to the deep freeze of May 23-24th I decided to do something to avoid total loss of blooms in the fall. When the radio forecasted that a killing frost was due the night of September 13th, the time seemed right to go into action. AUTUMN TWILIGHT and AUTUMN AFTERNOON were already in bloom, and SEPTEMBER BUTTERCUP was showing color; all others plumping up fast. I just had to see this crop of flowers!

Suddenly I remembered that in the old days we never suffered from cold during a sleigh ride. Dad simply set a lighted kerosene lantern under the lap robes that covered us. So I decided to make a lantern-air-conditioned tent over my little iris bed. The essentials would be a portable framework, cloth, and a kerosene lantern.

Using what just happened to be handy, three wooden saw horses that had supported our smorgasbord tables during picnics were placed astride over the iris bed. They were firm and would not tip over, and would keep the outing flannel blankets away from the blooms and from the lantern. Snow fence posts or poles would have done equally well. On windy nights we could anchor the top with a hammock cord and weight the edges of the blankets with rocks. Into this cosy tent went the lighted lantern whenever needed. One filling lasted 40 hours, as the flame was kept low.

Presto! Instead of blasted buds, a new bloom greeted me when, after the temperature had returned to 40 degrees outside, I dared to uncover the iris bed that first "morning after". It had taken only about ten minutes to assemble and place the protecting tent, and even less to remove it when not needed. The lantern was used only on the coldest nights. Only 15¢ worth of kerosene was burned.

The fall blooming period of remountant irises is much longer than the spring period, and than that of most perennial flowers. With this simple set-up we had continuous iris bloom for nine weeks, of which seven were after the first killing frost. Try it and see for yourself.

A list of the varieties so treated follows. All had lost their spring bloom during the unusually late freeze (down to 20 degrees) of May 23-24, which was widespread in New York State. The dates given for start of fall bloom are estimates from their present condition as I write this, November 8th. Every rhizome of suitable size is in bloom.

AUGUST WAVES (IB) 10/30, AUTUMN AFTERNOON 9/7, AUTUMN TWILIGHT 8/30, BARRE BEAUTY 10/15, FALL PRIMROSE 10/22, SEPTEMBER BUTTERCUP 9/23, SEPTEMBER PASTEL --, SUMMER INSPIRATION 10/5. \* \* \* \* \*

Ed.- Mrs. Frank H. Coombs' garden is located in Allegany County, N.Y. R.D.#1, Canaseraga. It is evident that she is enjoying her irises.

\*\*\* If not already a member of a letter robin devoted to discussion of reblooming irises, you are missing much fun and gardening information. If interested, apply to your Editor, whose address is in the inside of the front cover.

# The First Show for Reblooming Irises

by Berniece Shinkle

On October 6, 1963 the world's first Fall Blooming Iris Show took place at the Crossroads of America Motel, Vandalia, Ohio, a few miles north of Dayton. It was sponsored by the Miami Valley Iris Society in conjunction with the Region 6 fall meeting. That Society is an affiliate of the American Iris Society, the Dwarf, Siberian and Spuria Iris societies, and the Ohio Association of Garden Clubs.

As just about everywhere else east of the Rockies, iris growers had been hindered by long periods of drought; in this case two months at a stretch. This explains the number of entries, 32. However, enthusiasm shown is indicated by the presence of 27 accredited A.I.S. judges. All the A.I.S. requirements for an official A.I.S. show were met.

Best of Show rosette was won by Harry Hanna of Burbank, Ohio with a stalk of FALL PRIMROSE with four lovely blooms open at once and with 13 buds still to open. The Dwarf rosette was won by Joseph Fedor of Anderson, Indiana, who displayed Iris balkana. The Intermediate award was won by Dr. L.P. Irvin, of Oxford, Ohio, who showed BOUNTIFUL BLUE. He also won an honor with a Border iris. The Sweepstakes was won by Mrs. Allen Coke, of Jeffersonville, Indiana.

Horace Wright, of Xenia, Ohio won a rosette for his seedling 6127 as the best seedling shown. Mrs. Allen Coke earned recommendation for a Show Certificate with her seedling 022, a beautiful red bicolor. Worthy of special mention are six other seedlings displayed by Horace Wright:

- 6127, a large, very ruffled white with green overlay;
- 6304, a small, lovely white;
- 6203, (WABASH X RAMESES), green with a violet spot on the fall;
- 6309, light yellow with white spot on fall, 12 buds, 32" tall;
- 6305, brown, a little bunched at top, open standards;
- 6324, a dark blue (MASKED BALL) rebloomer (GIBSON GIRL X MOUNT WASHINGTON). Mrs. Allen Coke's 5-57 was also shown.

Other irises viewed at the show were: AUTUMN BRONZE, AUTUMN SNOW-DRIFT, AUTUMN TWILIGHT, ECHO VALLEY, GREEN DRAGON, HALLOWEEN NIGHT, HARVEST BLUE, SANGREAL, SEPTEMBER CHARM, SEPTEMBER PASTEL, MARTIE EVEREST.

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On a visit to Horace Wright's garden we saw 60 of his 1962 seedlings in bloom. They had also bloomed in the spring. He had also a freak fan of eleven leaves with a bloom springing from between the second and third leaves on each side, then one bloom spike from the center of the fan. We wonder what could have caused this. I had a light lavender with a tangerine beard, not too good as to form, but of fair substance. It will be used for breeding. Horace saved pollen for use next spring, most likely to be frozen. POLAR FLAME did not bloom for me this fall.

We had many reblooming irises present at the Miami Valley Iris Society meeting on Sept. 29th, among which were: GIBSON GIRL, FALL PRIMROSE, SEPTEMBER CHARM and several of Horace Wright's seedlings. These were still in bloom for the October meeting, with the addition of SEPTEMBER PASTEL and more seedlings of Mr. Wright and some of David Rawlins. David's 57-6 was a true pink with tangerine beard on a three-branched stalk. It held up well for several days, so must have better substance than most pinks. \*\* Ed.-(Mrs. H.S.)Berniece Shinkle is president of the Miami Valley I.S. She resides at 3227 Old Salem Road, Dayton 15, Ohio.