Sir Michael Foster

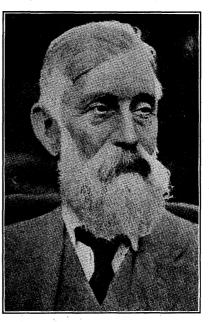
John C. Wister

Sir Michael Foster was born in Huntingdon, England, on March 8, 1836, the eldest son of a surgeon of that town. He was brought up in an atmosphere of fervent nonconformity and of strong radical leanings in politics, was educated at the Huntingdon Grammar School and later

in 1848-1852 at University College School in London, where he showed great aptitude for study as well as being captain of the cricket team. In 1854 he commenced to study medicine, and in 1859 received the degree of M. D. at the University in London. After studying in Paris he practiced medicine until 1867 when he became a teacher at the University in London and later in 1869, a Professor of Physiology.

He was a great friend of Huxley, whom he succeded as Professor at the Royal Society and it was on Huxley's recommendation in 1870 that he was appointed the first Praelector of Physiology at Trinity College, Cambridge where he installed one of the early laboratories, and published many papers and books, including the life of the physiologist, Claude Bernard.

He was married in 1863 but his wife died in 1869, leaving him a son and a daughter. In 1883, he became the first Professor of Physiology at Trinity College, and held that position until 1903. Much of the modern development of biological science in Cambridge University was due to his influence, his breadth of vision that so greatly



Sir Michael Foster, K. C. B.

extended the scope of the subjects and his method of teaching.

In fact present scientific study of physiology, botany, and morphology in English speaking countries is indebted to him for some of its best features. He wrote many scientific articles and gave scientific lectures, including the inaugural address at the International Medical Congress at Rome in 1894 and a course of lectures in San Francisco in 1900. He founded the Journal of Physiology. From 1900 to 1905 he represented the University in London as a member of Parliament.

After his second marriage in 1872 he built a house on the spur of

the Gog—Magog Hills four miles from Cambridge. There, on the bare slope, he laid out his garden, a spot which soon became a favorite afternoon resort for his many friends. This was his chief relaxation, he loved the iris best of all tho he gave much study also to cyclamens, anenomes, daffodils, and eremuri and his interest in gardens was so broad that he held the position of Secretary of the Royal Horticultural Society from 1881 to 1903.

His work in life was the result of his keen mental activity and fine character, his idealism combined with practical common sense. His career in both London and Cambridge was brilliant, and his death, January 28, 1907, left uncompleted much work of real value. Altho our knowledge of Sir Michael Foster is perhaps confined to what was his recreation, his study and hybridizing of irises, yet it is well to realize that he had many interests, serious work of broader appeal and yet that in his leisure moments he laid the foundation for the development of the modern iris.

LIST OF IRIS RAISED FROM SEED BY SIR MICHAEL FOSTER AT SHELFORD, ENGLAND BETWEEN 1872 AND 1907.

Name	Parentage	Introducer	Date of intro- duction
Aurora	Pallida	Wallace	1909
Barbara	Cengialti	66	1913
Blueboy (or Blue Boy)	aphylla	"	1909
Caterina	Cyp. x Pal.	"	1909
Celia	Pal. x Ceng.	"	?
Crusader	2 444 14 9 9 14 9 1	66	1913
Foster's Yellow		44	1909
	.x Ceng.	44	1909
John Foster	· · · · · · · · · · · · · · · · · · ·	66	1913
Kashmir White	Cyp.	44	1913
Lady Foster	Cyp. x Pal.	"	1913
Miss Maggie	Cyp. A Tui.	44	1907?
Miss Willmott	Сур.	44	1910
Mist	Pal. x Ceng.?	44	1909
Mrs. Alan Gray	Ceng. x Queen of May	44	1909
Mrs. George Darwin	cong. A queen of may	44	1900?
Mrs. H. Darwin		"	1900?
Nine Wells	Tro.	"	1909
Patience	Tro.	"	1909
Penge	Pal. x Ceng.	44	1913
Porcelain	Tro. ?	44	1909
Ring Dove	Pal. x	44	1913
Saracen	Tro. x ?	"	1913
Sarah	110. A .	44	1909
Shelford Chieftain	Cvp. x Pal.	"	1909
Shelford Yellow	оур. и ты:	44	1909
Viola	Pal. x Ceng.	44	1913
V 1014	idi. A Cong.		1010
Dilkush	Iberica x Pal.	Wallace	1909
Dorak	Ib. x (Pal. x Ceng.)	44	1909
Ferakan	Unknown	"	?
Giran	Ib, x Pal,	"	1913
Hamadan	Paradoxa x Pal.	- 44	1909
Ismali	Ib. x Pal.	"	1909
Lady Lilford	Par. x Pal.	"	?

Nazarin	Pal. x Ib.	Wallace	?
Paracina	Par. x Sambucina	"	1909
Parsam	Par. x Sam.	**	1913
Parvar	Par. x var.	. "	1909
Shirin	Ib. x Pal.	44	1913
Shushan	ParIb. x var.	**	1913
The Dove	Ceng. x Lupina	"	1909
Sheraz	Ib. x Pal.	***	1909
Monspur	Monneiri x Spuria	"	?
Shelford Giant	Gigantea x aurea	"	?
Tollong	Tolmiana x longipeta	la "	?
Clara Curtis (may be Perry s	Cyp. x Pal.	Perry	1911
Sir Dighton Probyn		"	?
Sir Trevor Lawrence		a .	1905
Parsam. (Perry says	he introduced this in	1905).	
		PR TO TO	00

Besides the Onco. hybrids from Dilkush to The Dove Perry offers the following crosses—

Pallida x Iberica.

Paradoxa x Pallida.

Incognita listed by Wallace 1913, may be a Foster seedling.

I am told Foster made but one Monneiri x Spuria cross which was named Monspur.

Forms collected by Foster

Karput, Madonna, Ceng. Loppio.

John C. Wister.

A Letter from Sir Michael Foster to Sereno Watson

WRITTEN JAN. 11, 1890.

In an interesting note in Botanical Gazette XII. p. 99, May, 1887 on "Our 'tripetalous' species of Iris" you show that I. Hookeri has priority as a name for the Canadian tripetalous species. I have several times received plants under the name 'I. tridentata', clearly not specimens of Walther's plant but so identical in all respects with I. setosa (Pallas) that though some of them were said to come from Canada, I thought there must have been some mistake, and that what I had received were simply specimens of the Asian I. setosa.

simply specimens of the Asian I. setosa.

Two years ago however Mr. James Fletcher of the Agricultural Department, Ottawa, was so very kind as to send me ripe full capsules and living roots of the tripetalous Iris growing at Mark Dalhousie, New Brunswick. The capsule and seed were exactly like the capsule and seed of the Asian I. setosa. In your note you point out the features of the Canadian Iris. I may add that the small dense seed, pyriform or oval except for the very conspicuous raphe is most distinct. Not only is it wholly different from the wedge-shaped seed of I. versicolor (which in turn is almost identical with the European I. pseudacorus, the two plants being the New World and Old World forms of the same type) but

so unlike the seed of other Irises known to me that I think I could always recognise it and detect it mixed with other seed. That of I. en-

sata comes nearest it.

Mr. Fletcher's root flowered with me last summer (1889), and I must confess that I cannot see in it any specific differences from the Asian I. setosa. The distinguishing feature of I. setosa is the diminished inner perianth segment or standard, in which a very short narrow claw suddenly expands into a minute ala on each side, the two together not reaching the width of 1 cm. and then rapidly narrows to a bristle-like point, the whole segment being only about 1.5 or at most 2 cm. in length. In I. versicolor the standards are sometimes small but never so small as this, and moreover are always ovate or ovatelanceolate.

The Canadian plant differs from what I may perhaps consider as the typical Asian plant, in the standard not narrowing rapidly to a point from the alae, but, after narrowing somewhat, maintaining the same width for a space and then suddenly becoming pointed in the blade of the outer perianth segment being more orbicular in the claw of the same having a more pronounced flange at its base, in the white patch or 'signal' at the junction of the claw and blade being less sharply defined, and in the ovary being more distinctly grooved on the sides. In all these features however except the first, seedlings of the Asian I. setosa vary a good deal.

The inflorescence of the Canadian plant was not so full and the foliage not so luxuriant as those of a well-grown Asian plant; but these, I take it, are merely matters of cultivation. The slight, apparently permanent difference noted above, seems to be hardly enough to found a species upon. The Canadian plant is at most a variety and might be

called I. setosa var. canadensis.

I may add that a plant said to come from 'Newfoundland' which my friend Mr. Max Leichlin of Baden Baden gave me appears to be identical with Mr. Fletcher's plant. Both are much more like the Asian I. setosa than a plant which I also received from Mr. Max Leichlin, which was said to come from Alaska, and which though really an I. setosa more fully perhaps, deserves an independent name than does the Canadian form; and its deep rich purple flowers and tall habit make it a handsome plant.

It is interesting to observe that I. setosa, like so many of your North American plants, of Asian origin, has been driven to your eastern seaboard, and nearly pushed out of the country. I can learn no evidence of its existence between Alaska on the west and East Canada. The I. versicolor of Canada appears to me wholly identical with the I. versicolor of the States but of less luxuriant growth.

M. Foster.

Shelford, Cambridge, England. Jan. 11, 1890.

> YOU WILL FIND OUR CATALOG OF INTEREST AND 6144 LAKEWOOD AVENUE, CHICAGO, ILL.

An Interview with Sir Michael Foster, K.C.B. at Nine Wells, Great Shelford, England*

Alfred Wilcox.

As there is no higher authority on the cultivation of the iris and no one in this country who has done more for its development than Sir Michael Foster, I asked his permission to visit Nine Wells, his residence in Cambridgeshire, for the purpose of a chat upon a subject which is not only interesting to almost every person who possesses a garden, but seasonable. Nine Wells, which is from three to four miles from Cambridge. is situated nearly on top of a hill, flanking the well-known Gog and Magog Hills and commands a fine view extending over a large area. On my arrival, I had a talk with Sir Michael Foster, and subsequently strolled around the gardens with him. He confessed that the fascination which the topic possesses for him was an inducement to accede to my request, and admitted the truth of the soft impeachment, that he has had a great deal to do with the development of the iris.

The Start in the Seventies.

"But", he continued, "the development of the iris has been a part of the whole development of gardening. It has been known to amateurs for a long time past, but I took up its cultivation somewhat vigorously in the seventies, when I began."

"Did you begin at Great Shelford?"

"Yes, but not in this garden. I came here seven years later. I commenced by growing all the ordinary known forms of the iris, and then I sought to get new forms, or to bring back old forms, obtaining them from the various parts of the world where the plants grow. I was very much helped by the late Dr. Regel, of St. Petersburg, who had, of course, the means of securing a large number of plants from Central Asia, and by Max Leichtlin, of Baden-Baden, and others. Subsequently, I received a great deal of assistance from missionaries, especially the Americans in Asia Minor. I got into correspondence with them, and they sent me a large number of plants, some of which proved to be new and others old. The iris abounds in Central Asia, and in Asia Minor more than anywhere else. I really continued to rely upon missionaries, and other friends in the East, until the leading nurserymen commenced to send collectors into the various regions."

The Conditions at Nine Wells.

"Do you consider that you started under favorable conditions?" "The conditions of this garden are certainly favorable for some kinds of iris, but they are unfavourable for many others. We are on top of a chalk hill, with a loamy surface soil above the chalk, varying from a few inches to, at most, a foot. Therefore, I have to dig out most of my beds, in order to get an adequate depth of soil—or rather, I should say that I have practically no soil at all. This means, however, that I have an unlimited choice of the soil in which to grow my plants, because I have to obtain it all. The complete drainage of the underlying chalk renders the garden relatively dry in winter; this state of affairs

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is, of course, favourable to most of the rhizomous and bulbous irises, and is especially so to those from Asia Minor and Central Asia. On the other hand, we are very dry in summer, and hence the conditions are most unfavourable for many other varieties of irises."

"Perhaps you would instance those?"

"I find it impossible to grow Iris Kaempferi, in spite of my attempts to supply them artificially with moisture. Again, I have great difficulty with the Himalayan irises, which rejoice in moisture, and with nearly all the irises from the New World, such as virginica, cuprea, versicolor, etc."

Experiments in Hybridization.

"When did you begin hybridizing?"

"My first attempts were with the common Bearded Irises. For instance, I crossed a not-quite-typical Iris variegata—that is to say, it already had some other blood in it—with a pretty typical Iris pallida. From that cross I obtained two hundred or more seedlings, which comprised, among them, many of the old garden forms, often spoken of as German Irises, such as I. neglecta, amoena, and the like. In fact, I reproduced in one gathering many old recognized forms, as well as some new ones. One of the latter, which has become very popular under the name of Mrs. Horace Darwin, thus came into existence."

"Any other results of crosses with the Bearded Irises would be in-

teresting."

"One was particularly so to me. Out of the light blue Iris Cengialti, crossed with the pollen of Iris Balkana (which was bronze-purple), I obtained about eighteen seedlings of very varied colours, not only light blue and deep purple, but pure white and several shades of yellow, as well as mixed colours, were represented."

Crosses with the Oncocyclus.

"The Oncocyclus Irises," continued Sir Michael, "from an early period engaged my special attention, but I must say that, notwithstanding all the care I bestowed on them, I feel that I cannot today grow them more successfully than I did a quarter of a century ago, and of late years, I have very largely limited my hybridizing to this species of Iris. I have crossed the Oncocyclus, such as iberica and the like, among themselves, and have obtained many striking forms. I have also crossed the true Oncocyclus Irises with what are called the Regelia section, such as Iris Korolkowi, and have obtained results somewhat similar to those obtained by Messrs. Tubergen which have attracted so much attention. I have likewise crossed, with moderate success, the Oncocyclus and the Regelia Irises with the rhizomous Irises. Iris iberica, crossed with the pollen of I. pallida, or, again, I. pallida crossed with the pollen of I. iberica, has given me forms, some of them very beautiful, but others less so. In the same way, I. paradoxa with I. pallida, or with I. sambucina or I. variegata, has given me some very good results."

"But you have effected many other crossings?"

"Yes; one, Iris Lorteti, with I. pallida, is especially charming, but a great many are monstrous and ugly. The latter have to be destroyed, or kept only as curiosities. The hybrids between Oncocyclus and rhizomatose Irises are very sterile, so that in most cases I have not been able to go beyond the first generation. But I have one or two plants of Iris paradoxa, crossed with I. pallida, which have been carried on to the second or third generation, and which are certainly handsome plants. I have hybridized bulbous Irises, and I raised several interesting

hybrids of Iris reticulata, but these I lost through fungus disease, with which, unfortunately, my garden has become very much infected. I have been more fortunate with Iris xiphium. I have some beautiful hybrids of this section crossed with Iris filifolia, and an interesting xiphium crossed with I tingitana. I am looking forward to several interesting hybrids belonging to the Juno section."

Fertilization from Insects.

"Have you had many difficulties owing to fertilization from insects?"

"In hybridizing with the Oncocyclus section, I have been very much struck with the freedom I have experienced from fertilization by insects. In hybridizing the Beardless Irises, in which, also, I have done a good deal—raising, for example, Monspur, which is a hybrid from Monnieri and spuria—I had great trouble in preventing fertilization by insects or otherwise, but with the Oncocyclus I do not require to take any pains to protect the flowers from insects. I simply remove the anthers as soon as the flowers expand, and put on the pollen as soon as the stigma is ripe. Thus far I have not had any result in which the offspring was the effect of any other pollen than that which I put on."

The Treatment of Seed.

"How have you treated the seed you have obtained from hybridization?"

"In two ways. I have sown it in prepared beds in the open, which has the advantage of giving rise to relatively early germination; I say relatively, because, as I shall show presently, germination may be very slow, and may extend over two, three, or more years. During that time it is difficult to keep the seedling bed free from weeds, and to remove the plants which have germinated, without injuring the seed left behind. Hence, I have been led, chiefly, to adopt the alternative method of sowing the seed in pots. This plan has the recommendation that no seed is lost. The seed from one hybridization is generally scanty, and can be sown in quite a small pot. When a seed has germinated, I repot the seedling, and, at the same time, resow all the seed left behind, for the seed is large enough to be easily sifted out. By this means I am able to keep the seed for almost any length of time."

The Period of Germination.

"Then, as to the period of germination?"

"As a rule, especially with the hybrid seed, but also with the natural se d of Oncocyclus Irises, a few—but only a few—of the seeds sown germinate the first year. Rather more may germinate the second year, and, subsequently, germination takes place stragglingly and unequally. I have repeatedly raised seedlings from seed which had been lying in the pots for periods varying from five to ten years. In two cases I have raised seed which has so lain for thirteen and for fifteen years, and I have one case of a seed germinating after it had been in the ground for eighteen years—a kind of Rip Van Winkle seed. There are still a dozen or more of that eighteen-year-old seed sound and hard, and, I believe, still germinable. I am wondering whether it or I will come to an end first".

The Importance of Feeding.

"Perhaps you might follow what you have said about germination with some suggestions of cultural treatment."

"As I have already said, I do not think that, so far as the cultivation of Oncocyclus Irises is concerned, I am any wiser than I was twenty-five years ago. I still see the advantage of not disturbing them, if they can be kept sufficiently dry in winter; but generally speaking, I take them up in summer, and dry them off, before replanting, to a greater extent than I did in former days. Although I think that they profit by lime, and, therefore, my garden is, in this respect, suitable for them I have not been able to find out that they benefit by any special chemical treatment. I am pretty well convinced, however, that they all gain by being well fed, and that the fears of manure being injurious to them are quite groundless. It is, of course, very disappointing, now and again they go wrong and disappear. But though I have tried my utmost to ascertain what is really the cause, I have not yet succeeded. The ordinary rhizomous Irises do not want any care at all—they survive the most cruel and injurious treatment. As a rule, I divide them, when they have to be moved, directly after flowering. With precautions as to moisture, after replanting, they lay well hold of the ground during summer and autumn, and become strong plants in the ensuing spring. Some of the broad-leaved Bearded Irises, especially those having variegata blood in them, grow very rapidly, and clumps become bare in the middle. It becomes necessary to divide these after a while, but I always put the process off as long as I can, helping the central bare portions by covering them with a little earth".

Varieties for Amateurs.

"Now I should like to know of the easier varieties for amateurs to grow".

"My own experience is that in my dry ground I can grow all the Bearded Irises without difficulty, and most, though not all, of the bulbous. Iris xiphium (the Spanish Iris) is grown without difficulty, and flowers freely; Iris xiphioides (the English Iris), on the contrary, gives me great trouble. I can only keep it alive by continually replanting it in a specially-prepared bed. It wants more moisture and more humus than I can give it here. I have also some difficulty with Iris persica and the allied forms; these are very apt to die out, and, as I think I indicated, the reticulata group gave me great trouble owing to the amount of the fungus which has somehow or other got into my garden. But with most of the other bulbous Iris I have little difficulty, and I raise a large number of these by seed. I have a very good stock of Iris Rosenbachiana, which varies extremely in brightness of colour and in size of flower. Some of the forms are very poor, but others are remarkably beautiful: Though I, myself, have trouble in growing many of the narrow-leaved Beardless Irises, the owner of gardens having different physical conditions to my own will possibly find them very easily grown."

The Need of Sunshine.

"I suppose sunshine is a factor in achieving success?"

"I think I may say of all Irises that, whether they want water at their feet or not, they need sun over their heads if they are to flower properly. I do not know one variety which does not flower more freely in the sun than in the shade, though, of course, when they flower in the shade the bloom lasts longer. There is, perhaps one exception—I mean Iris foetidissima, which certainly thrives best in partial shade, but it has no great beauty save its red seed in autumn and winter. One large yellow form which I have, and which came from Italy, is not without merit".

The Duration of the Flowering Season.

"How long does the flowering season usually last?"

"It begins in January, when the earlier forms of the Reticulata group commence to bloom. These are steadily followed during the latter part of the month, February, and March, by the Juno Irises, I. orchioides and I. bucharica being the last of these. In company with the latter, Iris tuberosa, or what the Italians call 'The Widow', flowers very freely. The Bearded Irises begin to bloom here in early April, the Pumila section being first; and then, from the end of April and during May, comes the great rush, provided the season be not very late. Most of the Oncocyclus and Regelia Irises are at their best in the latter end of May or the beginning of June. At the same time, the ordinary Bearded Irises and the Xiphium section, as well as the Beardless Irises, are coming out, and carry one on through June. In July they begin to thin out, and towards the middle of the month the last of my Beardless Irises, Monnieri, gives its final bloom. Then there is a pause, and for the rest of the year I hardly get any blooms. Some of the Pallida section give me a second supply of flowers, but Iris alatà, which ought to bloom in October or November, will not grow here, nor yet the little bulbous Iris Vartani, which flowers in November, but which I cannot keep alive for more than two years in succession, while Iris stylosa, which in the southern countries, flowers abundantly in late autumn and early winter, rarely shows buds with me until after Christmas. I am practically bare of Irises in the open garden during the second half of the year".

"And under glass"?

"I grow a small quantity under glass, but they are chiefly for the purpose of hybridisation. By growing them under glass, I get them in an early condition, and therefore can cross them with some that would otherwise not be growing at the same time."

As we went round the garden, I noticed a bed of healthy-looking Carnations, and I asked Sir Michael whether he devoted much atten-

tion to any other plant.

"I have a few good Tea Roses, and have been going in for Eremurus very largely in the last few years. I raised them from seed, and get different forms. But my special attention is limited to irises; any

other things are quite secondary."

There are beds in all stages of growth, and endless varieties; some exposed, and others sheltered; some on the terraces, and others on the flat; some in seedling pots, all marked according to the time they were sown; and others in the greenhouse. Before I came away from Nine Wells, I had the pleasure of seeing the plant which germinated at the expiration of eighteen years, while in the conservatory were two pots of Iris stylosa in flower on January 19th.

What Our Gardens Owe to His Work

R. S. Sturtevant.

A mere glance at the parentage of the varieties raised by Sir Michael Foster, a realization of the fact that he was practically the first to use Cengialti, trojana, and cypriana among the Bearded Irises and the first that we know of to combine the pogoniris with the regelias and oncocycli is enough to reveal his indirect influence on the novelties of today. His work made possible Mr. Dykes' splendid monograph, The Genus Iris, even more directly he encouraged W. J. Caparne to whom we owe practically the entire race of Intermediates, and when we consider the botanical confusion in the nomenclature of cypriana, mesopotamica, and Ricardi we can fully appreciate just what his introduction of certain species has meant to present day breeders. The Vilmorin introductions to be sure, show a considerable percentage of Amas blood, but on the other hand consider Mr. Yeld's Lord of June, Neptune, Asia and Prospero, if I am not mistaken, Miss Sturtevant's Avalon, Queen Caternia, Reverie, and many more, Dusk, one of Mr. Morrison's first introductions, and Lent A. Williamson. All these trace to either Trojana or cypriana, and M. Denis' Arsace, Leverrier, and Mme. Durande to Ricardi while I rather expect to find a trace of Ricardi in Ambassadeur, Magnifica, and Ballerine. The fact that Mr. Bliss' Dominion Race has the character of Lent A. Williamson makes probable a similar heredity there as well.

With this brief statement of the giants of to-day let us see just where we would place Sir Michael Foster's irises in our present rating and let us consider the varieties not individually but in groups ac-

cording to their parentage.

I wish to speak first of the least of these, the Cengialti hybrids. Typically they are (in my garden) a few days earlier to bloom than most varieties; in this they are like Barbara and Mr. Bliss' recently introduced Speedwell both of aphylla blood; they are good growers, free-blooming, rather like small pallidas and in shape Mrs. Alan Gray and Viola, the only two that stand forth in my memory might be taken as examples of distinct forms. The first has a fairly stocky stalk, its flowers rounded in form and the two so well-proportioned as to be almost ideal, the color happens to be unparalleled for its season. In Viola and others of its type, there is rich color, usually distinctively slender growth, and flowers of good substance, not large, but very charming with their flaring falls.

Of the Trojana seedlings as given; Porcelain shows few earmarks of its family and is in no way remarkable; Patience I have always liked, it is small but very floriforus, well-branched and until recently was the only one of that dull blended, but rich, lavender tone; Nine Wells is a favorite of mine, a distinctive tall rich lavender bi-color; and Saracen is good, but so much of the type of Emir, Sarpedon and others that I can no longer call it distinct. Altho Ringdove is credited to the pallidas, its splendid branching makes me think of trojana also because of its narrow segments and unusual coloring,—certainly it is of its own kind alone with little trace in the flower of true pallida characteristics.

The cypriana seedlings have long ranked the highest, the current discussion in the Flower Grower about Caterina is a sure sign of its place in our gardens; Crusader and Lady Foster as well have attained far higher rank than their flexuous stems (under some conditions) and

their slow growth really merit. I, at least, value them only as fore-runners of the finer things. Shelford Chieftain is rather close to the type and is now surpassed by Lord of June without much doubt, and though both Kashmir White and Miss Willmott are said to be of this strain, they show a form of flowers practically never found among cypriana seedlings, an unusually leathery texture to the petals (a very rare character) and a manner of branching approaching pallida. It is unfortunate that they prove of such slow growth in many parts of the country as even the variably washed white of Miss Willmott is well-worth possessing. These were orignally listed as seedlings of Kashmiriana but both M. Denis and Mr. Dykes, from their experiments, claim this to be a mistake.

In these groups we find four variations in the texture of the flower, the Cengialtis are very similar to the pallidas in this respect, the Trojanas are coarser, more like Amas and the other germanicas, the Kashmirianas very heavy and smooth, and the cyprianas as a rule have

a sheen that gives real beauty.

Of the varieties of other or unknown parentage there are two dwarfs; John Foster a thrifty but delicate looking plant of great charm, and Sarah of unbelieveably slow growth but good size and heavy texture; then there are two yellows, Foster's Yellow which though not over two feet is a nice clear tint and Shelford Yellow which is a bit deeper but often shows venation; and two whites, the popular Mrs. Horace Darwin, and the taller but poorer growing Mrs. George Darwin which is of slight account.

Of the oncocyclus hybrids I can speak with but little authority, I have seen and grown a majority of them, but they do not appreciate my company and I wait in vain to see a sturdy mass of their rich, somber-hued flowers. The plants are low, the leaves often sickle-shaped and sparse in growth, and in flower form the varieties fall into two groups;—the one, of which Parvar might be cited as an example, has star-shaped horizontal falls and narrow standards, in the other, Dilkush, the standards are large, the whole flower more like Susiana. In some, the standards are heavily netted with veins, dark on a light-ground, in others clear toned, but almost invariably there is a dark signal blotch at the beard and the coloring has a wonderful depth and richness. It is a great pity that this group should not be more favorably grown and known in many gardens. It ought to succeed in California.

The apogons raised by Sir Michael Foster, like their parents should have a place in every garden, they extend our iris season, and their bold growth and foliage proves a welcome contrast with other perennials.

There are few of you who do not grow at least one of the varieties raised by Sir Michael Foster and I hope that henceforth that each time you show their beauties to your friends you will take time to mention their origin, it will give you a personal interest and the kindly, generous spirit and enthusiasm of Sir Michael Foster can be passed on to iris lovers thru his productions.