

# Handbook For Judges and Show Officials

## Essay: Terminology for AR & AB Iris



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Note: This chapter and others from the *Handbook for Judges* are available online. It is recommended that judges and other readers peruse the Introduction and Table of Contents in the full edition of the *Handbook* in order to know the complete list of available resources, e.g., Glossary, essays, Judge's Activity Record, etc.

It is recommended that you read this essay on terminology before working in the chapter on judging aril and arilbred iris.

## ESSAY: Terminology for Aril and Arilbred Iris

Approved by the AIS Board of Directors, March 9, 2021

### I. DEFINITIONS AND CHARACTERISTICS

These iris are so different and variable that it is very difficult to judge them properly without a thorough knowledge and understanding of the entire group. The name "aril" refers to *Oncocyclus* and *Regelia* species and hybrids involving only these two groups. The term "arilbred" refers to hybrids between the arils and other bearded (*Eupogon*) iris. A breakdown of the various plant types follows, with more complete definitions found in the *Aril Society International Checklist*.

#### ARILS (AR)

- a. ONCOCYCLUS (O and OH): species or hybrids involving only *Oncocyclus*.
- b. REGELIA (R and RH). Species or hybrids involving only *Regelia*.
- c. REGELIOCYCLUS (RC). Hybrids involving *Regelia* and *Oncocyclus*, predominately *Regelia* in phenotype.
- d. ONCOGELIA (OG). Hybrids involving *Oncocyclus* and *Regelia*, predominately *Oncocyclus* in phenotype.

#### ARILBREDS (AB)

Arilbred iris are defined as hybrid iris combining genetic characteristics of the aril iris and the *Eupogon* iris. To be recognized as an arilbred and be eligible for awards by the Aril Society International, an iris must meet two separate criteria:

**1. Arilbreds must contain one-quarter or more aril complement.** This is determined according to the chromosome set system for defining aril content.

#### Chromosome Set System

Aril content is currently defined according to the chromosome set system, which replaces the older system based on ancestry. Aril content (or, more specifically, aril chromosome complement) is equal to the number of aril chromosome sets as a fraction

of the total. Thus, an iris with one aril chromosome set and two Eupogon chromosome set has an aril content of 1/3. The chromosome sets can be determined by a chromosome count or inferred from parentage, appearance, or fertility.

Arilbreds are divided into three subclasses: oncogeliabred, oncobred, and regeliabred. Iris in each of these subclasses are further divided by aril chromosome complement; i. e., less than 1/2 aril, 1/2 aril, and more than 1/2 aril. This is indicated respectively by a minus (-), no sign, or a plus (+) after the class abbreviations, e. g., RB-, OB, or OGB+.

The majority of modern arilbreds are oncogeliabreds.

ONCOGELIABRED (OGB, OGB+, OGB-). A hybrid containing any combination of Oncocyclus and Regelia and other Eupogon iris.

ONCOBRED (OB, OB+, OB-). A hybrid containing both, and only, Oncocyclus and Eupogon iris.

REGELIABRED (RB, RB+, RB-). A hybrid containing both, and only, Regelia and Eupogon iris.

**2. Arilbreds must exhibit at least two aril flower characteristics.** The recognizable aril flower characteristics include:

#### Regelia Type

1. Elongated standards or falls as in *Iris korolkowii*.
2. Linear beards and beards on standards as well as the falls.
3. Conspicuous veining.
4. A prominent V-shaped spot in contrasting color.

Oncocyclus Type

5. Broadly domed and reflexed standards as in *Iris gatesii*.
6. Ruffled and reflexed standards as in *I. lortetii*.
7. Accentuated globular form as in *I. susiana*.
8. Extremely broad falls.
9. Well recurved falls.
10. Thick, heavy, or broadly diffuse beards as in *I. susiana* or *I. gatesii*.
11. Exaggerated styles as in *I. bismarckiana* and *I. iberica*.
12. A definable signal spot at the end of the beard.
13. Flaring and lanceolate falls as in *I. acutiloba*.
14. Narrow and flaring falls as in *I. paradoxa*.
15. Linear beards as in *I. meda* and *I. maculata*.
16. Beards on standards as well as falls.

Although some of these examples appear to be in direct conflict, they have been chosen to represent the incredibly wide and varied forms.



*Iris korolkowii*

*I. gatesii*

*I. lortetii*



*Iris susiana*

*I. bismarckiana*

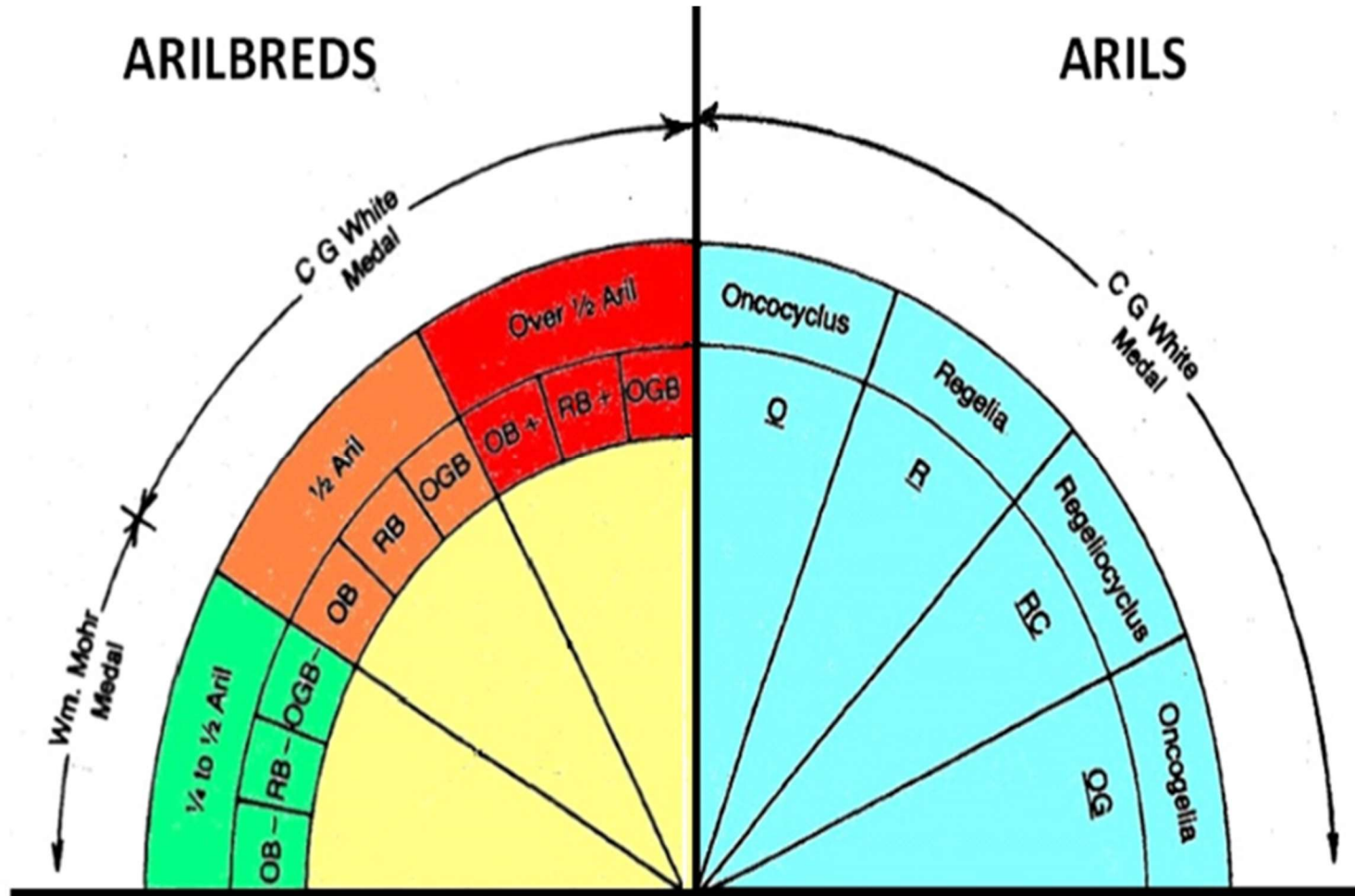
*I. iberica*



*Iris acutiloba*

*I. paradoxa*

*I. meda*



		type of aril content				
		oncocyclius only	oncocyclius and regelia	regelia only		
amount of aril content	pure aril	O OH	OG	RC	R RH	eligible for
	more than half	OB+	OGB+		RB+	C. G. White
	half	OB	OGB		RB	Medal
	less than half	OB-	OGB-		RB-	eligible for William Mohr Medal



## II. ARILBRED HEIGHT DESCRIPTIONS

All types of arilbreds vary greatly in height and overall plant size. Smaller arilbreds, usually derived from dwarf or median bearded iris, present a different range of qualities than their taller counterparts. The following definitions may be helpful in recognizing and appreciating these differences:

- a. arilbred dwarf (ABD): any arilbred with a registered height less than 13 inches (33 cm).
- b. arilbred median (ABM): any arilbred of one-half aril complement or less, with a registered height between 13 and 22 inches (33 and 56 cm), inclusive.
- c. arilbred tall (ABT): any arilbred with a registered height greater than 22 inches (56 cm), or any arilbred of more than one-half aril complement with a registered height of 13 inches (33 cm) or greater.

There is currently no formal usage of the terms above for registration purposes. It is important to note that all iris containing both aril and Eupogon heritage are correctly registered as arilbreds and subcategorized based on their aril complement as described herein. They can informally be further characterized by bloom height using the definitions above, but not by height categories (SDB, IB, etc.) defined for pure Eupogons. Note that aril species are smaller than tall bearded iris. The tallest, *Iris gatesii* and *I. haynei*, usually do not grow above 24 inches (60 cm). Therefore, arilbreds naturally fall into different height groupings than their bearded counterparts.

*These terms may be used in addition to (not in place of) the arilbred classes and subclasses described herein. For example, an OGB- arilbred that also meets the definition of arilbred median (above) may be referred to as "AB (OGB-/ABM)".*

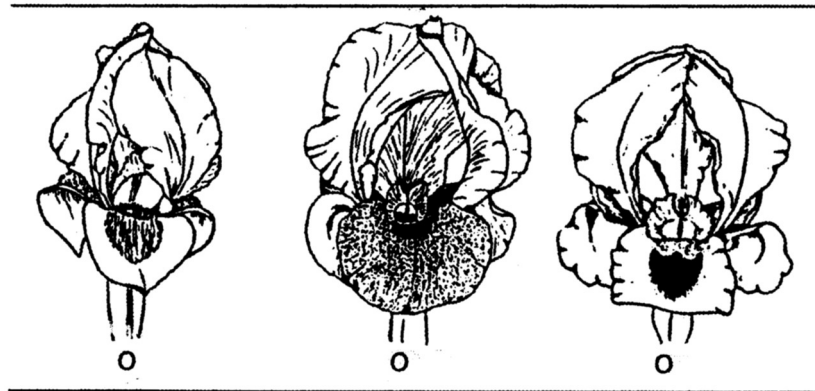
### III. ARILS

#### ONCOCYCLUS SPECIES AND HYBRIDS

Characteristics of this group are the most variable, involving some fifty different species. Stems seldom exceed 24 inches (60 cm) in height, are unbranched, and bear a single blossom ranging in size from that of the dwarfs to tall bearded iris. Large flowers on short stems are sometimes encountered (*Iris haynei*). Stems may be small and wiry (*I. atropurpurea*) or relatively thick and fleshy, almost straight (*I. iberica*), and may or may not have leafy stem spathes (*I. mariae*). Foliage is narrow, ranging from 1/4 to 1-1/8 inches (0.6 to 3 cm) and can vary in height from 3 to 18 inches (5 to 46 cm). It can be quite falcate (ram's horn) with tips at or near the ground in some smaller types (*I. acutiloba*), semifalcate (erect with outward curving on the upper portion) (*I. kirkwoodii*), or almost erect (*I. gatesii*) in some taller types.

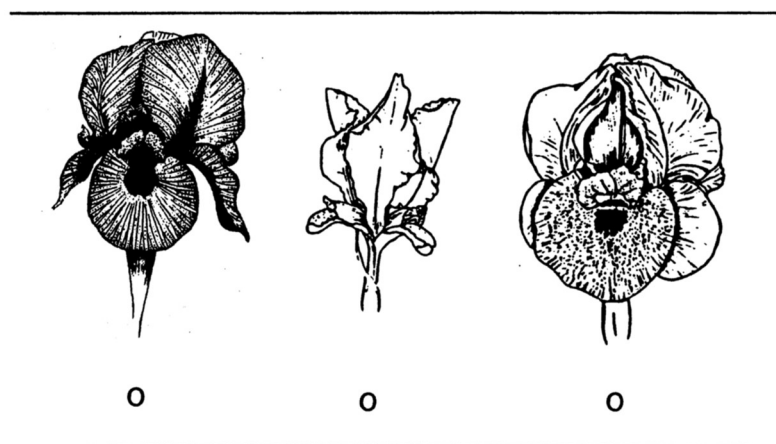
Flower forms of these iris are very diverse and different from those of the tall bearded iris. The standards are usually larger than the falls and vary in proportion to fall size from 1:1 as in *Iris hermona*, to 4:1 as in *I. paradoxa*. Standards are usually rounded or broadly oval and may be domed and touching, overlapping slightly, or erect and open. They may be tailored, gently waving, ruffled, or reflexed outward on the sides (flagging). Falls may be flaring, semi-flaring, mildly recurved (convex), strongly recurved, rolled under, concave (inward curving), or combinations of these. They are mostly oblong or rounded. Some species have narrow segments which sometimes may be pointed. Species and cultivars will sometimes display style arms protruding outward and downward on the falls halfway or more, whereas others may feature very large exerted crests. Beards are mostly broad (diffused or heavy), but linear beards are sometimes found, as in *I. sari* and *I. meda*. Colors range from white to near black, including many combinations of yellow, violet, and red or brown.

Examples of Oncocyclus



Flower colors, patterns, and textures are extremely varied and may occur as a self, blend, bitone, bicolor, or amoena. Color effect is often altered by presence of decorative patterns, veining, stippling, dotting, and color flushing, any of which may be strongly colored or delicate and muted. The most typical feature of this group is the presence of a signal on the fall at the end of the beard, usually occurring in darker contrast to the ground color of the falls. Signals occur in various shapes and sizes and may be sharply outlined or diffusing at the edges. An oncocyclus signal is typically an area of elongated cells which looks and feels like fine velvet. Comparatively, signals on Regelias and arilbreds usually reflect only color pigmentation within the cells of the fall, and the texture is unaltered.

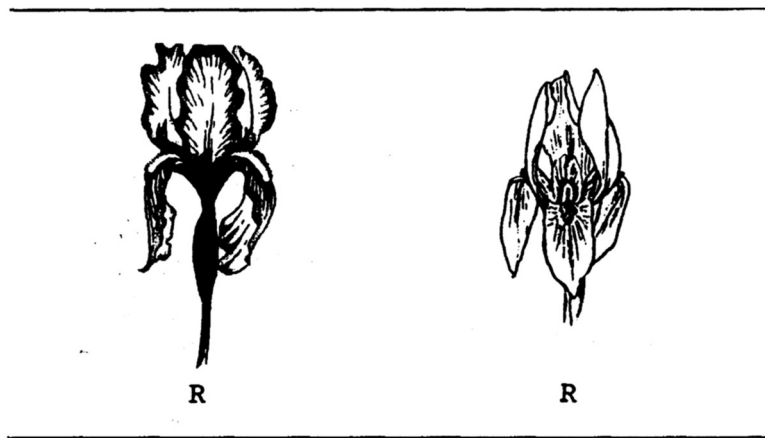
Examples of Oncocyclus



## REGELIA SPECIES AND HYBRIDS

Regelias typically display two buds on slender stems which are usually tall in proportion to flower size (often near 24 inches or 60 cm) for *Iris hoogiana*, *I. stolonifera*, and their hybrids; smaller for *I. korolkowii*. Flower form is narrow with down-hanging falls. Standards are usually pointed and touching, but widely open in some species. Smoothness of color and texture is featured by some, whereas others display prominent ornamental veining. Beards occur both on the falls and inside the standards and are often brightly colored. When present, signals are usually small and appear as a chevron (V-shaped) color spot.

### Examples of Regelias



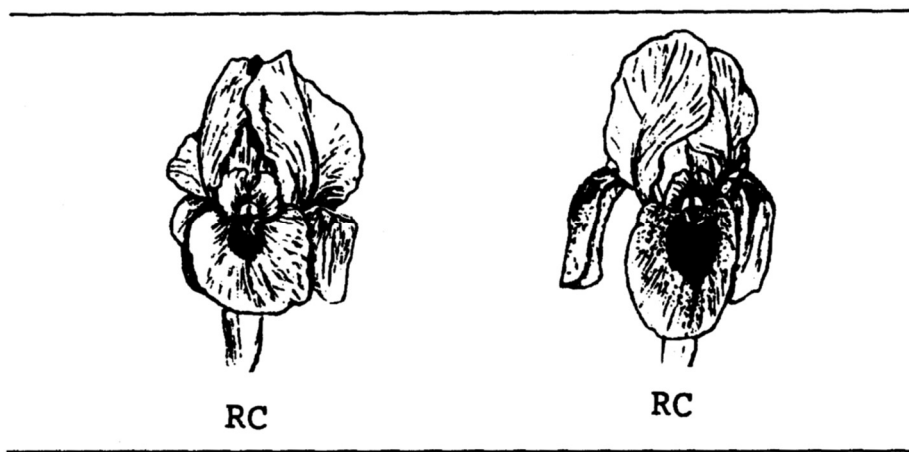
Flower substance is usually less than that found in the oncocyclus, and there is less color and pattern variation. Flower size is small to medium, and foliage is mostly narrow, tall, and erect. Regelias are more hardy and tolerant to moisture than the oncocyclus, extending the range of cultural conditions under which arils can be grown.

## REGELIOCYCLI

Plant, stem, and blossom size is mostly intermediate between Regelia and oncocyclus. Most stems have two buds and flowers usually reflect more Regelia traits such as ornamental veining and the V-shaped color spot.

Most flowers have light or rose-violet grounds with darker violet or greyed purple veining with small dark color spots and signals. This group is more hardy and easier to grow than the oncocycli.

Examples of Regeliocycli

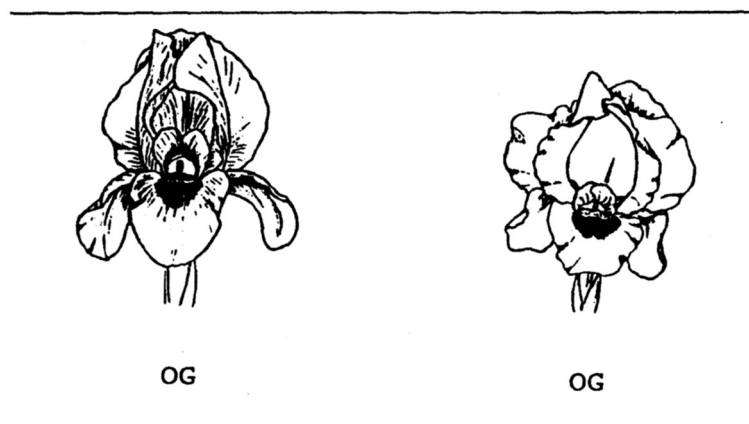


## ONCOGELIAS

Hybrids of this group usually reflect more oncocyclus traits than the regeliocycli, with most advanced generation cultivars being indistinguishable from the pure oncocycli. All aspects of plant, form, and flower vary as in the oncocycli. Stems normally have one bud, but some cultivars have two.

These hybrids are often also easier to grow and perform better than the oncocycli, and increased hardiness is found due to their Regelia content.

### Examples of Oncogelias



## IV. ARILBREDS

### LESS THAN ONE-HALF ARIL COMPLEMENT

Cultivars of this type resemble their Eupogon parentage more than the aril in both flower and plant.

The early tall bearded X 'Ib-Mac' or 'Capitola' cultivars (referred to colloquially as "Mohrs") fall into this grouping, as do their modern counterparts created by crossing tall bearded iris with arilbreds of 1/2 aril complement. These iris are usually comparable in height to tall bearded iris but may be somewhat shorter. Branching and bud count may be somewhat reduced in comparison with tall bearded.

This grouping also includes the majority of arilbred medians and arilbred dwarfs. The former tends to resemble intermediate bearded iris, with aril characteristics represented in the flower and foliage. Arilbred dwarfs are more reminiscent of standard dwarf bearded iris (or sometimes miniature dwarfs) in height and overall plant habit, again with aril characteristics evident in the color, form, and pattern of the flowers. Bud count and branching may be less than in medians of comparable size.

Arilbreds of this type are as easily grown as bearded iris in most climates, and hence more widely grown than other types of arilbreds.

Examples of arilbreds with less than one half aril complement

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OGB-



OGB-

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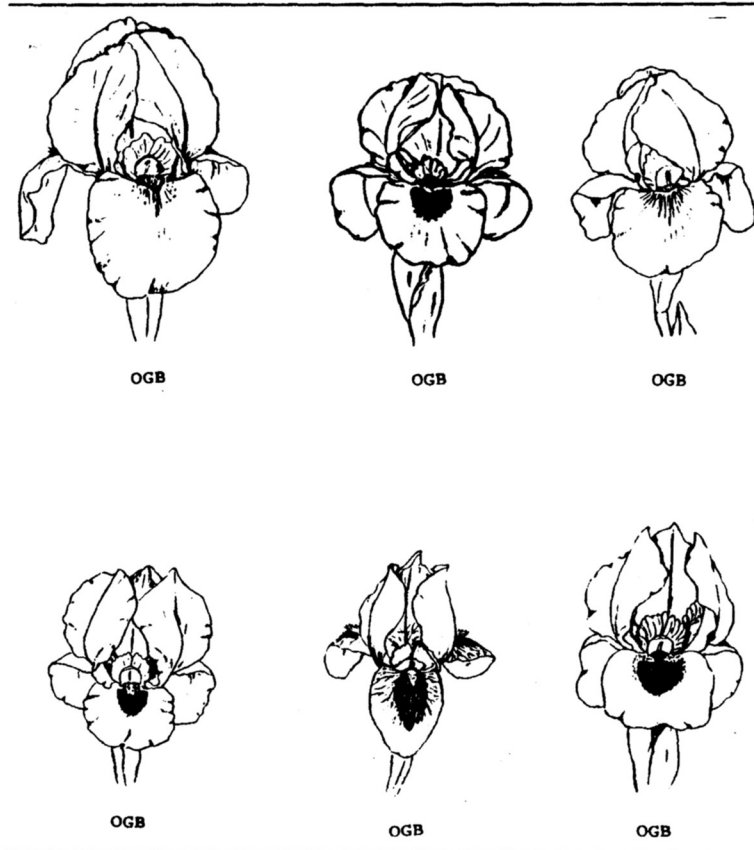
### ONE-HALF ARIL COMPLEMENT

This is the largest of the three types of arilbreds, for here we find the more fertile types including the later C. G. White hybrids, their derivatives, the tetraploid regeliabreds, and other amphidiploids derived from tall bearded iris and arils. They overlap in height with the shorter tall bearded, but many are somewhat shorter. The flowers are expected to display three or more definite aril traits (recurving falls, signals, spot patterns, decorative patterns, veining, etc.) Colors and color patterns vary considerably from pastel and almost white, through bright selfs and bicolors, to near black. Both broad onco-type and linear beards are found. Cultivars of one-half aril complement involving tall bearded iris may have one branch, a spur, and terminal, with three to five buds total.

Although not common, some arilbred medians and arilbred dwarfs fall into this grouping. Some resemble shorter versions of their tall counterparts, but some also show the features of dwarf bearded iris in combination with aril traits. Some may have as many buds as their taller arilbred counterparts, but one or two buds per stalk is more typical.

Most plants in this grouping grow and increase well in many areas, particularly in the drier climates of the western US, and produce multiple bloom stems.

Examples of arilbreds of one-half aril complement



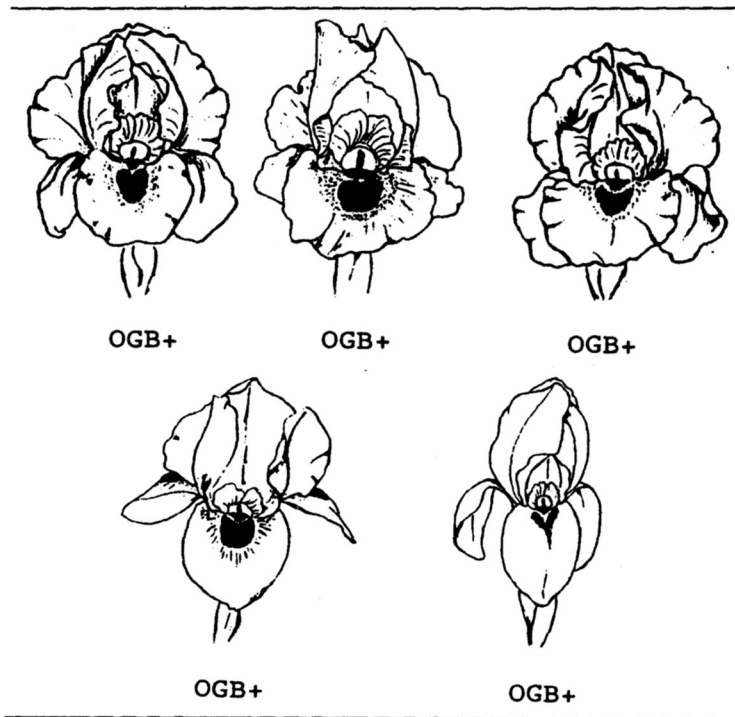
OVER ONE-HALF ARIL COMPLEMENT

Aril traits are most strongly expressed by arilbreds of this class, with three or more aril flower characteristics expected. Many varieties closely resemble pure arils in plant, stem and flower, and may be difficult to distinguish from them when viewed from a distance. Some, but not all, will be taller than their aril ancestors, approaching TB size. Those in the height range of 13 to 22 inches (33 cm to 56 cm), are not considered arilbred medians, as these smaller heights are usually a consequence of their predominantly aril ancestry. A few arilbred dwarfs (less than 33 cm in height) have been produced in this category from crosses involving arils and small dwarf bearded species.

Typically, no branching is found and stems will display only two buds. Occasionally a spur may be found on some varieties. Cultivars in this group of arilbreds are much more manageable in culture than pure arils; some even grow as well as plants of one-half aril complement and reliably produce multiple bloom stems and good increase.



Examples of arilbreds with over one-half aril complement



## V. OVERVIEW

- The name "aril" refers to Oncocyclus and Regelia species and hybrids involving only these two groups.

### THE ARILS (AR)

- There can be hybrids of Regelia (RH) species and hybrids of Oncocyclus (OH) species.
- A hybrid of a Regelia and an Oncocyclus that is predominantly Regelia is called a Regeliocyclus (RC)
- A hybrid of a Regelia and an Oncocyclus that is predominantly Oncocyclus is called an Oncogelia (OG)

### THE ARILBREDS (AB)

- The term "arilbred" refers to hybrids between the arils and other bearded (Eupogon) iris. An arilbred must contain at least one-quarter or more aril chromosome complement.
- Arilbreds are divided into three subclasses: oncogeliabred (OGB), oncobred (OB), and regeliabred (RB).
- Iris in each of the 3 subclasses are further divided by aril chromosome complement; i.e., less than 1/2 aril, 1/2 aril, and more than 1/2 aril. This is indicated respectively by a minus (-), no sign, or a plus (+) after the class abbreviations, e. g., RB-, OB, and OGB+.