

## CHAPTER 12

### ARIL and ARILBRED IRISES

**Definitions and Characteristics:** These irises 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 species. The term "arilbred" refers to hybrids between the arils and other bearded (eupogon) irises. A breakdown of the various plant types follows, with more complete definitions found in the *Aril Society International Checklist*.

#### ARILS (A)

- a. ONCOCYCLUS (O and OH): species or hybrid involving only oncocyclus.
- b. REGELIA (R and RH). Species or hybrid involving only regelia.
- c. REGELIOCYCLUS (RC). Hybrid involving regelia and oncocyclus, predominately regelia in phenotype.
- d. ONCOGELIA (OG). Hybrid involving oncocyclus and regelia, predominately oncocyclus in phenotype.

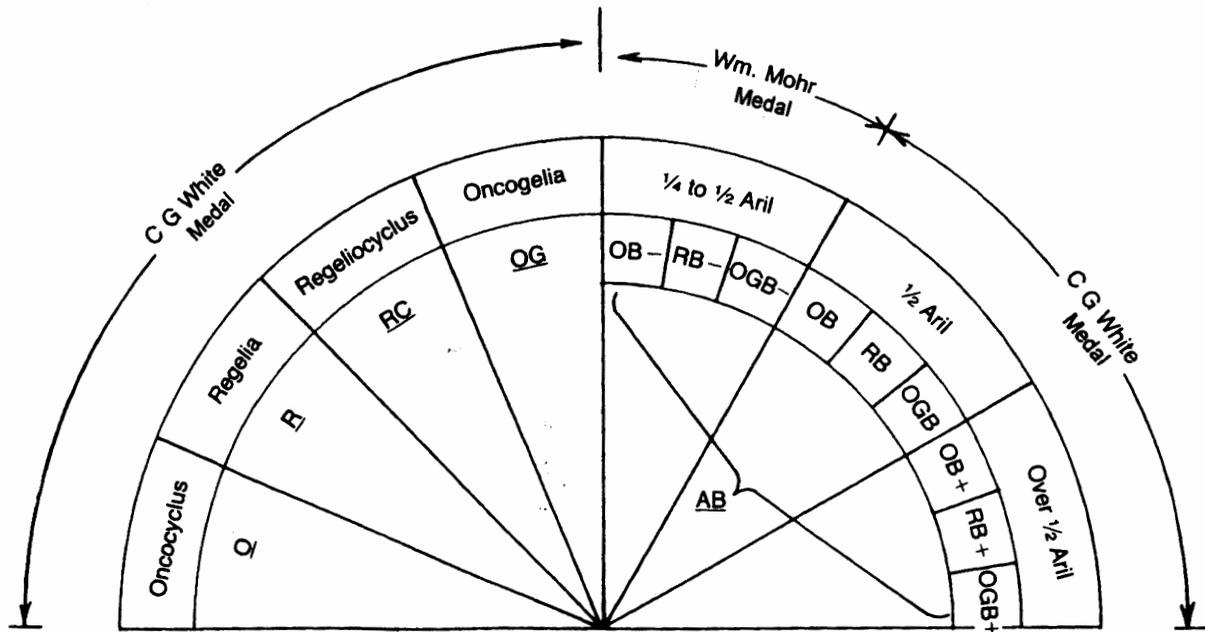
#### ARILBREDS (AB)

- a. ONCOBRED (OB). Hybrid involving only oncocyclus and other bearded irises.
- b. REGELIABRED (RB). Hybrid involving only regelia and other bearded irises.
- c. ONCOGELIABRED (OGB). Hybrid involving oncocyclus, regelia, and other bearded irises.

Each of the three classes of arilbreds is divided into three subclasses based on the amount of aril content in the hybrid; i.e., less than 1/2 aril; 1/2 aril; and over 1/2 aril. This is indicated

ARILS

ARILBREDS



respectively by a minus (-), no sign, or a plus (+) after the class abbreviations, e.g., RB-, OB, or OGB+.

## Recognizable Aril Flower Characteristics

### Regelia Type

1. Elongated standards or falls as in *I. 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.

### Onco Type

5. Broadly domed and reflexed standards as in *I. 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. bismarkiana* 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. maculata*, *I. meda*, and beards on standards as well as falls.

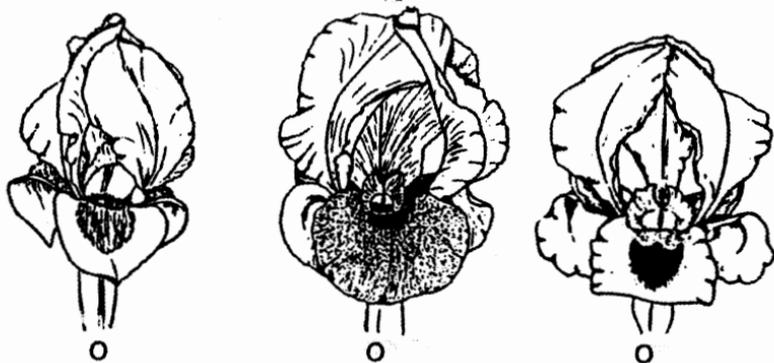
(\*) These seem to be in direct conflict with the rest of the onco characteristics. They are simply other variations illustrating the incredibly wide and varied forms in the oncocyclus section.

## ONCOCYCLUS SPECIES AND HYBRIDS

Characteristics of this group are the most variable, involving some fifty different species. Stem heights vary from 8 to 71 cm (3 to 28 inches), are unbranched, and bear a single blossom ranging in size from that of the dwarfs to the largest tall bearded iris. Proportion is usually relatively good, although large flowers

on short stems are sometimes encountered. Stems may be small and wiry or relatively thick and fleshy, almost straight, and may or may not have leafy stem spathes. Foliage is narrow, ranging from 0.6 to 3 cm (1/4 to 1 1/8 inches) and can vary in height from 5 to 46 cm (3 to 18 inches). It can be quite falcate (ram's horn) with tips at or near the ground in some smaller types, semi-falcate (erect with outward curving on the upper portion), or almost erect in some taller types.

Flower forms of these irises are very diverse and different from that of the tall bearded irises. The standards are usually larger than the falls and vary in proportion to fall size from 1/2 to 1/2 as in *I. hermona*, to 4/5 to 1/5 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 half-way or more, whereas others may feature very large exerted crests. Beards are mostly broad (diffused or heavy), but linear beards are sometimes found. Colors range from white to near black.



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. A true signal is an area of elongated cells which looks and feels like fine velvet. Comparatively, a color spot is merely color pigmentation within the cells of the fall, and the texture is unaltered. Some varieties may display both a signal and color spot.

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## REGELIA SPECIES AND HYBRIDS

Regelias typically display two buds on slender stems which are usually tall in proportion to flower size. Flower form is narrow with downhanging 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 occur on the upper portion of a chevron (V-shaped) color spot.

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R



R

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Flower substance is usually less than that found in the oncocycli, 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 oncocycli.

### 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.



RC



RC

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## ONCOGELIAS

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

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

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OG



OG

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## ARILBREDS

**LESS THAN ONE-HALF ARIL CONTENT** (Requires two recognizable aril characteristics). Cultivars of this class resemble their eupogon parentage much more than the aril in both flower and plant. The early tall bearded X IB-MAC and/or CAPITOLA cultivars fall into this grouping. In some areas they are as easily grown as the tall bearded irises. Height, branching and number of buds are sometimes equal to but generally reduced from that of the tall bearded irises.

Stems of cultivars involving the standard dwarf bearded irises will have a spur (sometimes a branch) with an average of three buds. Cultivars involving dwarf irises will display an unbranched stem with two terminal buds. If the parentage involves intermediate irises, a branch and spur is usually found with up to four buds. Heights will vary from 8 to 66 cm (3 to over 26 inches). The smaller varieties are strong growers and prolific increasers.

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OGB-

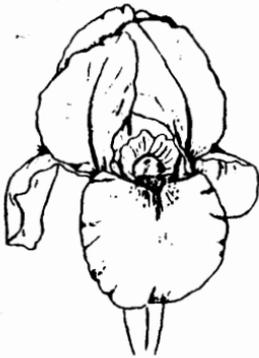


OGB-

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**ONE-HALF ARIL CONTENT** (Requires three recognizable Aril characteristics). This is the largest of the three classes 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. Most varieties will be intermediate in flower and plant size. The flowers will display definite Aril traits (recurving falls, signals, spot patterns, decorative patterns, veining, etc.) Colors and color patterns vary considerably from pastel and almost white to near black. Both broad onco-type and linear beards are found.

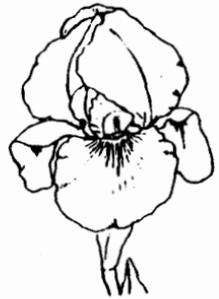
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OGB



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OGB

Cultivars of one-half aril content involving tall bearded irises may have stems over 76 cm (30 inches) tall if well grown, have one branch, a spur and terminal with three to five buds. When the cultivars involve dwarf or median irises, the height, degree of branching and bud count is slightly reduced from varieties with less than one-half aril content. Most plants in this class grow and increase well in many areas and produce multiple bloom stems.

**OVER ONE-HALF ARIL CONTENT** (Requires three recognizable aril characteristics). Aril traits are most strongly expressed by arilbreds of this class. Many varieties closely resemble pure arils in plant, stem and flower, and may be difficult to identify apart from them when viewed from a distance.



OGB+



OGB+



OGB+



OGB+



OGB+

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

Current hybridizing advancements in the 1/2-bred OGBs are resulting in some plants displaying signals as large as or larger than those displayed by most 3/4-breds. Flower forms and beards are also more aril-like than found on some 3/4-breds. A judge must be aware of these progressions in hybridizing and not arbitrarily dismiss such plants as being wrongly classified. He/she should also remember that 3/4-breds can have widely differing flower forms depending on whether the aril content is predominately oncocyclus or predominately regelia.

## **GARDEN EVALUATION OF ARILS AND ARILBREDS**

Standard comparison procedures should be used for all evaluations, as point scales would be difficult to apply to the wide variation of flowers and plant types encountered. In both arils and arilbreds, the flower in all of its aspects should receive approximately two-thirds of total evaluation credit, and the plant and stem one-third.

Overall, the judge should evaluate cultivars for desirable improvements, diversities, goals, and typical expectations for the type and class. Plants should be evaluated for increased cultural and weather tolerances, regularity of bloom, number of stems, rate of increase, general vigor, better substance and disease resistance. This applies to both arils and arilbreds, but is particularly pertinent for arils, because this is the prime objective of their hybridizing. The judge must remember that there is no single "proper" form for either arils or arilbreds. Diversity of form and flower aspects are both inherent and desirable. Clean coloration is desired in all types, and should not appear "muddy" or "dirty". Stems should carry the flowers

above the foliage and be strong enough to support the blossoms through normal weather conditions. Flower size should be in relatively good proportion to the stem and should be distinctive as well as possess charm, grace, and poise.

**EVALUATION OF ARIL FLOWERS:** Hybridizing goals include new and improved forms; new colors and combinations of color; transfer of signal color, size, and shape to different plants; and different patterns and combinations of patterns.

Flower form is of prime importance, but no variety should be considered unfavorably because it has a different and unfamiliar form. Open standards often emphasize the aril look, but they should not exceed the vertical plane of view from base to tip, and should be domed rather than paddle shaped. Excessive flagging of standards is not desirable, as it results in a narrow and open look. A small to moderate amount of flagging is acceptable if it does not adversely affect the flower form. Narrow haft areas relative to fall width detract from overall flower form and is not a desired aril trait.

Excessive recurving, rolling, or "snapping" of the falls is highly undesirable as this destroys flower form. Likewise, pinching or swirling of blossom segments is unacceptable.

Color aspects are more highly rated in arils than in most other iris types, for not only flower color, but signals, color spots, decorative patterns, veining, stippling, and dotting are evaluated. Signals or color spots should be completely visible when viewed from a horizontal plane and not partially hidden from view by excessive recurving of the falls. Size, color, shape, and definition of signals are considered in their effect on total flower evaluation. If present, decorative patterns, veining, and stippling should be well defined and have good color intensity. Irregular color flecking, streaking, or splotching is not desirable, for they reflect imperfections or disease rather than true aril traits.

**EVALUATION OF ARILBRED FLOWERS:** Evaluation of arilbred flowers is basically the same as for arils. Hybridizing goals are to transfer the exotic forms, signals, colorations, and patterns of the arils to plants having more hardiness, increased branching and bud count, better disease resistance, and greater adaptability to growing conditions. The extent to which these efforts have been successful is the primary basis for judging arilbreds within each class.

One of the most valuable attributes of the oncocykli is the prominent dark or brightly colored signal, which is completely lacking in other bearded irises. Great progress has been made during recent years to transfer these signals to cultivars of one-half or more aril content, some of which now display signals larger than found on most oncocykli and oncogelias.

Preferred and most sought for flower characteristics are those of the oncocykli, for they are the most beautiful and spectacular. Regelia content sometimes results in unusual bright color patterns.

**EVALUATION OF ARILBRED BRANCHING:** Branches should be well placed and evenly spaced to display each flower separately without interference from another, and should hold blossoms away from the stem. A judge must remember that amount of aril content is inversely related to the degree of branching displayed by arilbred cultivars.

Plants of less than one-half aril content should display branching almost equal to that of the eupogon parentage. Branching of plants having one-half aril content is expected to be intermediate between the aril and eupogon parents. Half-bred cultivars involving tall bearded should usually display one branch, a spur, plus terminal, with a total of four buds. Some cultivars have more or less branching and number of buds, but the cultivar should be judged as a whole, giving proper considerations to flower and plant. Varieties of over one-half aril content typically have no branching whatsoever.

Weather and cultural practices strongly influence arilbreds, and can result in erratic plant performance, degree of branching, and atypical expressions in the flowers. It is sometimes necessary to observe the cultivar for several years prior to final evaluation.

Most importantly, the judge should evaluate the amount and degree of desirable aril flower characteristics present in the cultivar for its particular class, as this is the prime objective of arilbred hybridizing. However, careful evaluations of progress toward plant objectives are necessary before arriving at a conclusion.

A judge should grow as many types as possible so the plants may be continually observed and evaluated. Visits to gardens of other growers in the area will offer added insight for evaluations. Final consideration should be reserved until a two-year clump is observed.

## **EXHIBITION JUDGING**

All show chairmen should be in possession of the latest *A/S Check List(s)*, which will indicate which varieties are classified as arils or arilbreds and in which type, class, and sub-class they should be considered.

Exhibition awards are given to the grower in recognition of skill and accomplishment in culture and grooming. The aril and arilbred section is peculiar in that some cultivars and species are relatively easy growers, while others demand a very high degree of horticultural skill. In close selections for higher awards, the judge should consider the degree of accomplishment and skill required of the respective exhibitors.

Familiarity with the variety or species is a necessary prerequisite to properly judge each cultivar against its potential performance. A judge may find it difficult to give a higher award to a single-flowered aril or arilbred with no branching over a