The Restio Family At Suncrest Nurseries, Inc.





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The restios (family Restionaceae) are an unusual plant group from the southern hemisphere, allied to grasses and sedges. Their adaptability to the California climate, as well as their graceful texture and form, make these plants great additions to gardens and landscapes. Growth habit varies from densely tufted clumps to thickets spreading by short rhizomes. Individual stems are called culms, and some species keep these smooth stems year-round. Other species have branched culms. The branches are often quite narrow, even thread-like, resulting in a fluffy appearance. Photosynthesis takes place in the culms and branches. Actual leaves on the restios are reduced to leaf sheaths which encircle the stems on most new growth. These sheaths are often ornamental, and in some species are typically shed when the culm matures. Restios can exhibit quite different foliage in juvenile and mature plants. Young plants often have profusely branched "foliage". This fades away as the mature stage develops. New–generally taller–culms are sent up each year until the mature size is reached.

Most restios are best in full sun with reasonably drained, acid soils of low to moderate fertility. Many are adaptable to situations with moderate to occasional summer water. Like many plants from South Africa and Australia, they are not tolerant of excessive phosphorus or high pH soils. Certain species can tolerate waterlogging in winter and drying in summer. They do not appear to be attractive to gophers, though young, soft growth is sometimes eaten by rabbits. Their hardiness varies.

Restios are dioecious, bearing male and female flowers on separate plants. Sometimes these flowering spikes can be quite different in form. Actual flowers are very small and are organized in dense spikelets. The chaffy, often quite ornamental, bracts of these spikelets can be silver, bronze or golden. These are displayed for months on most species as seeds mature.

South Africa is a major center of distribution of these distinctive perennials. Historically, some restios (*Chondropetalum*, *Thamnochortus insignis*) have been used for thatching, and literature tells of the foliage of many species being used as brooms. As cut foliage or flowers, they tend to be very long lasting. The following species are currently grown at Suncrest Nurseries.

Cannomois grandis is the new name for what has been known as Cannomois virgata in California and elsewhere. The true Cannomois virgata is a shorter, spreading species. C. grandis is a bold perennial that has attracted avid interest among California gardeners. Strong new culms often have conspicuous pink to red bracts, and the overall effect is bamboo-like as the culms mature. Narrowly clumping culms can reach 10' in height. They are gently arching when the plants are young, though older culms can droop to the ground, creating a wide foliage circle. This species needs moderate water throughout the year and is hardy to at least 20 degrees F.

Chondropetalum tectorum has also attracted the attention of the taxonomists, and has been sorted into two similar species--Chondropetalum tectorum and Chondropetalum elephantinum. This species complex is probably the best known of the restio group and both species have been grown in California since at least the early 1980s under the C. tectorum label. Both species form deep green clumps. Differences begin at this point. C. tectorum tends to make clumps to 3' high, with more slender culms and flowers. It has a narrow base and arching habit. C. elephantinum has more robust culms, and can reach 5-6' in height with a somewhat more erect habit. New culms at the outer edges of the clumps of C. elephantinum create this more vertical effect and clumps can eventually spread to over 4' across at the base. Culms of both species can be compared to those of a smooth-stemmed Equisetum, though they do not have the root-wandering habit of that group. New growth on the smooth round stems has dark brown leaf sheaths, which show bright, silky golden undersides as they fall from the stems.

Flower spikes appear at the tips of the stems and are blackish brown. The presentation of the male and female flowers in both species is quite similar. Both species have withstood temperatures somewhat below 20 degrees F. without damage. Plants grown in part shade or with abundant water can be more lax in form. In South Africa, both species appear in seasonally wet soil. In California they have been grown in water or in gardens with only occasional summer water.

Elegia capensis can form clumps up to 8' high and wide, though these take some time to develop. The stems resemble giant branched horsetails with large golden bracts. Texturally, a large clump assumes a very fluffy, somewhat undulating appearance. In nature, these are plants of marshy places and are found along or in streams, so regular to moderate watering is needed. Golden brown flowers are carried at the tops of the stems but are not particularly striking. Winter temperatures of 20 degrees F. brought serious damage to the foliage of established clumps of this species in January 2007, but all clumps quickly resprouted in the spring, regaining stature and mass. Large bracts on new shoots are especially striking.

Elegia fenestrata grows in marshy seeps in its native land, and it needs moderate water in gardens. Culms are similar to those of *Chondropetalum tectorum*—dark green in color and 4' in height--but are distinctly wavy, thicker in texture, and they create a different effect. Erect clumps are less responsive to air movement. Bronze flowers in thick clusters at stem tips mature to black. Damaged at 20 degrees F., this species did recover the following spring.

Ischyrolepis subverticillata is more tolerant of shady situations than most restios. In South Africa it is found along streams from sea level to the lower mountain slopes. It makes vase shaped, medium green clumps to 5'+ with branched culms. Its rigid stems are more airy than *Elegia capensis*, though with the same "branched horsetail" quality. Subtle male and female flowers are borne on the tips of the branchlets. Winter temperatures of 20 degrees F. killed the foliage to the ground, but the plants slowly recovered. Moderate water is recommended.

Restio festuciformis is very like the grass referred to in its name. Slender culms are smooth and bright light green. Golden flowers are carried at stem tips in late winter and spring. Tidy clumps stay under 18" in height. This species is at its best with moderate water, in sun. Very effective in mass plantings, hardy to 25 degrees F. or less.

Restio quadratus is notable for its sturdy square stems. Clumps can reach 6' in height, with equal or greater spread as the billowy culms drape. Foliage is briefly covered in fall with white feathery stigmas of the female flowers; male flowers are less conspicuous. These plants appreciate moderate water and are hardy to at least 20 degrees F.

Restio similis is a smaller clumping restio species. Its dark green culms are divided, but the overall effect is of a graceful, draping grass. Chestnut bracts appear at the stem tips and produce dark brown flowers in summer. Foliage reaches 18". Hardy to at least 20 degrees F.

Restio tetraphyllus is native to Australia. Its bright green stems have fine, plume-like branches and form loose mounds to 3-4'. Stems can drape to the ground creating a rounded profile for the clump. This plant grows best with regular to moderate water, and should be shaded where summers are hot.

Rhodocoma arida is a tidy plant for drier sites. Erect narrow columns of bright blue-grey culms distinguish this species from most other restios. Its branched juvenile foliage vanishes with time, and the thin culms stand erect. Dense clumps typically reach 5-6' in height, and the effect stays very vertical if watering is not too generous. This restio can tolerate winter temperatures of 20 degrees F. or less. Moderate to occasional water.

Rhodocoma capensis develops stately, dark green columns that can reach 9' in moderately watered gardens. Well branched culms droop gracefully at the tips, creating a softer effect over time. This species is adaptable to generous or low water situations. Placement in a dry garden will result in smaller stature. Small bronzy male and female flowers are very similar on this species, though in spring, female flowers bring a rosy haze to the female plants when the flowers open. No damage at 20 degrees F.

Rhodocoma foliosa makes an erect, very bright spring green feathery mass. It is more spreading at the base, and somewhat shorter than *Rhodocoma gigantea*. It flowers in spring and male flowers are carried in pendant clusters that often include foliage, creating a very lacy appearance. Female flowers display striking white stigmas. Hardy to at least 25 degrees F.

Rhodocoma gigantea makes a very dense feathery mass up to 5' high and wide. Flower stems rise separately from this foliage mass. Male stems can attain 8'+ and carry many dangling dark chestnut spikelets. Female flowers are on thin 2' stems. When the female flowers mature, they extend their delicate pink styles out to catch pollen. Flower stems appear in the fall and are striking although the actual flowers don't appear until spring. *R. gigantea* grows best in sun and needs moderate to regular watering. It has suffered some damage at 20 degrees F. though plants recovered in spring.

Thamnochortus bachmannii is a smaller growing restio. Culms reach 2' in height and can be topped by bronzy flowers (bracts, really). High soil fertility will result in more branched stems below the smooth, erect flowering stems. A less fertile situation will emphasize the vase-shaped form, with smooth blue-green stems topped by shiny bronze bracts. These are particularly effective in the winter garden. Moderate to occasional water, hardy to at least 20 degrees F.

Thamnochortus insignis is a bright star of the restio alliance and provides a striking display in large spaces and in all seasons. Wiry dark green culms to 6'+ are naked and topped by shiny golden flowers in summer. Vase shaped in form when young, the clumps mature to perfect hemispheres, with each culm sensitive to the slightest breeze. Moderate to occasional watering. It showed no damage when temperatures dropped to the upper 'teens in January 2007.

Thamnochortus rigidus is well suited to smaller gardens, and forms a tough, interlaced foliage mass up to 2' high. Silvery flowers are carried well over the foliage in spring. Male flowers are in the usual dangling spikelets, while the female flowers are more erect. Moderate to occasional water is best for this species, and it is hardy to 20 degrees F. or less.

Restios are at their prime in the winter garden, though they keep fresh foliage and sculptural form in all seasons. As a group these plants need little shaping or removal of dead stems. The foliage is long lasting, and older foliage is usually overtaken by new growth. Tough, flexible stems on most species are a graceful presence on windy sites. Some species are adaptable to both winter-wet and summer dry situations. Few groups of plants combine such unusual form and texture with such durability in the landscape.

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