Habenaria is a large genus with many charismatic species which produce interesting and often colorful, showy flowers. Though the genus is found in many different environments globally, those most commonly found in collections have similar growth requirements and are generally terrestrial. Species commonly seen in collections include H. carnea, H. rhodocheila, H. xanthocheila, H. erlichmichaelii, H. roebbeleini, H. medusa and the varieties and hybrids of these species. This large genus has many charismatic species which produce interesting and often colorful, showy flowers. Though the genus is found in many different environments globally, those most commonly found in collections have similar growth requirements and are generally terrestrial.

LIGHT Habenaria are fairly adaptable to light levels and can be grown in a greenhouse, under lights, or outdoors in mild weather and outdoors under lights when temperatures drop. Given light levels of 1,000 to 1,500 foot-candles, plants will grow and flower regularly. This level of light can be provided by four 4’ florescent tubes placed 6” to 10” above the top of the foliage. Use of an adjustable chain to hang the lights is beneficial as it can be raised as the plants grow. Lights should be on for 12 to 16 hours a day. In the greenhouse, 70% to 80% shade will provide sufficient light levels. Habenaria will produce more flowers per shoot and produce more shoots more quickly given brighter light - up to Cattleya levels of around 3,000 foot-candles. Habenaria medusa requires greater light than the other listed species to grow vigorously. No light is required while plants are dormant; they may be stored in a completely dark location.

TEMPERATURE During the growing season, temperatures should be maintained above 50 F at night and between 65 and 80 F during the day. Circulating air and increased humidity during high temperatures are beneficial. During dormancy, temperatures should be above 50 F. Warmer temperatures during dormancy will expedite the breaking of dormancy and the tuberous roots will desiccate more quickly.

WATER During active growth, water should be liberally applied. Potting mix should be moist but not soggy and dry slightly between watering. Plants should not be subjected to dry potting mix during growth. Depending on humidity and temperature, water should be applied to maintain proper hydration; hotter temperatures require more frequent watering. Avoid wetting foliage or allowing water to sit in the center of the growth. Apply water to the potting mix either from the top or from below by setting in a tray of water. Never leave the plant standing in water. Care should be taken as growth resumes in spring and as plants enter dormancy in fall that the potting mix does not stay soggy. During dormancy, water should be completely withheld.

HUMIDITY Humidity is best maintained between 50% and 80%. Humidity during dormancy is not critical, though tuberous roots should be monitored by gently tapping out of the container. If they become shriveled, humidity may be a little low and increasing it may be beneficial.

FERTILIZE During active growth, fertilizer should be applied regularly following the adage “weakly weekly.” A water-soluble fertilizer is easily included in the irrigation water once a week. At higher temperatures and light levels requirement for mineral nutrients increases and better performance may be achieved with by increasing frequency of fertilizer application.

POTTING Potting mix should retain moisture but allow for sufficient air (oxygen) at the roots. A mix should provide moisture retention and maintain air space. Combinations of sphagnum moss, perlite, charcoal and bark work well.

Select a pot that is only large enough to accommodate one season’s growth. Plastic or clay containers will work, though watering frequency will vary; plants potted in clay will dry more quickly at the roots than in plastic. A deep container which allows space for the downward growth of the new tuberous root is preferred to shallow containers.

Repotting should occur just as growth resumes but before new shoots are too large and easily damaged. Annual repotting is recommended. Repot into moist potting mix and withhold water until the new growth reaches 1” to 2.” Following dormancy, the tuberous roots are best left undisturbed in their containers and stored dry until being repotted in late winter or early spring as growth resumes.