

Technical Guide:

TRADEWINDS® HIBISCUS LINERS & QUICK STARTS



Tradewinds® Hibiscus are bred for beauty and performance with compact plant habits for containers or landscape, superior branching and high bud count for abundant flowering all season long. Healthy foliage is an attractive, glossy green to showcase the blooms.

Tradewinds® Hibiscus are energy driven. They require high light and warm temperatures for fastest crop times and full, quality pot plants. Northern, Northwestern, Middle Atlantic, Midwestern and Canadian growers should start production in March through June for best results. Southern, Southwestern and Southern California growers can mostly produce year-round with their higher light and temperature.

Uses

Tradewinds® Hibiscus liners can be used to produce 4½", 6", 8", 10" or 12" pots for use as house plants or as flowering plants for patios, window boxes and landscape applications. Although Tradewinds Hibiscus are not winter hardy in Northern or Midwestern climates, they will thrive outdoors in southern locations where winter temperatures rarely drop below 50°F.

Clean Start

Tradewinds® Hibiscus liners and Quick Starts are produced from virus-tested stock for healthier cuttings, faster growth and less crop time. No growth regulators have been applied, so you get quicker take off, fuller growth and more branches.

General Culture

The production process is similar for liners and Quick Starts except for planting.

Planting 1- & 2-cutting liners: Remove Oasis liners from the holding strip by pushing up from the bottom. Plant just deep enough to cover the surface of the Oasis liners with media. Water thoroughly, and apply water directly to the Oasis liners to keep them wet until new roots are established. Monitor dryness of the liners for 3 to 4 days after planting.

Quick Starts: If they are to be "bumped up" from their 4-inch pots to larger containers, plant no deeper than the top of the media in the pot.

Root Medium and Irrigation: Use a well-aerated mix but be sure that sufficient moisture can be retained since plants should never be allowed to wilt. Wilting will cause leaf yellowing and loss as well as flower bud drop. Most commercial root media should be satisfactory. Soilless root media pH should be 5.5 to 6.2. As with all potted plants, water quality (e.g., alkalinity, nutrient content, etc.) should be known to evaluate the potential effects on plant nutrient.

Fertilization: To get plants off to a fast start and maximize breaking action, start off with a constant feed of 300-400 ppm nitrogen for 1 to 2 weeks, then cut back to 200 ppm. Use a complete fertilizer which has the majority of nitrogen as the nitrate form and contains extra micronutrients as in the "Peat-Lite specials".

Example formulas are 20-10-20, 15-11-29, 15-16-17, 20-19-18, etc. During periods of rapid growth after start-up, 400 ppm nitrogen may again be needed to maintain proper leaf color. Plants may also benefit from drench applications of epsom salts (magnesium sulfate) at 8 oz. per 100 gal. every 6 weeks to prevent lower leaf interveinal chlorosis. Chlorosis on upper leaves can occur because of iron deficiency caused by poor roots or a low iron supply usually due to pH being too high. Watersoluble iron products such as Iron Sequestrene or Sprint 138 can be used as instructed to alleviate iron deficiency

if roots are healthy. Liquid feeding is best for Hibiscus. However, if controlled-release fertilizers are used it is best to be used in combination with liquid fertilizers. Liquid feed is especially helpful in getting young plants off to a good start. Controlled-release fertilizers tend to release best by temperatures about 70° F. When cooler than this, less nitrogen is available to young plants. During very high temperature periods the release can be greater than desirable for plant growth.

Light and Temperature: These two cultural factors greatly affect plant size and production timing. Tradewinds Hibiscus require maximum available light with 65°F to 70°F night temperature and 75°F to 85°F day temperature for fastest production and best quality. Lower temperatures will seriously delay and stunt plant growth. Low light results in fewer branches, fewer flowers, stretched plants and longer crop time. Bud development will not occur at temperatures below 55°F, and chilling injury can occur if temperatures drop below 50°F for an extended period of time. Leaves become white then brown then black. If roots are healthy, new shoots will regrow. Cut back injured stems to promote new growth.

Pinching and Early Bud Removal:

Pinching is used to create rounded, bushy plants. The number of pinches depends on the container size, number of plants and desired plant size. The first pinch is made when plants are established, usually 10 to 17 days after planting. Pinches should be made in semi-hard wood for optimum breaking action. Soft new growth should be removed. Pinching into soft wood reduces breaking action and encourages premature budding. Pinching into hard wood results in woody stems and poor breaking action. Do not make pinches into harder stem tissue unless needed to control unruly shoots





1-cutting liner



2-cutting liner



51-cell Ellepot tray



4" Quick Start liner (4-cuttings)



- Talstar GH (adults)
- Talstar GH mixed with Azatin
- EC for added nymph control (adults, nymphs)
- Tristar 8.5 SL (eggs, nymphs, adults)
- UP-Star

Aphids:

- Avid EC
- Decathlon WP
- DuraGuard
- Endeavor
- Endosulfan WP
- Flagship 25 WG
- SuffOil-X
- Marathon G
- Orthene TTO
- UP-Star
- Tristar 8.5 SL

Spider Mites:

- Avid EC
- Floramite
- Hexygon
- Judo
- Met 52
- Pylon
- SuffOil-X
- Sultan
- Tetrasan

There are few disease problems on Tradewinds® Hibiscus.

Avoid overhead watering to prevent occasional bacterial or fungal leaf spot diseases.

Basal stem and root rot from Phytophthora can be a problem. Chipco Aliette, Heritage, or Subdue MAXX drenches after planting are useful in controlling this fungal disease. Please note that there are some reports of Phytophthora resistance to Subdue MAXX.

Care and Handling

Tradewinds® Hibiscus should be sold when 2 to 3 flower buds show color. The largest buds will open in 1 to 3 days.

Storage and shipping temperatures should be between 50°F and 60°F.

Recommended grades and standards for hibiscus are given in the FMA/SAF publication "Recommended Grades and Standards for Potted Plants."

since this will decrease branching and flowering. To create a well-rounded plant, pinches should be made whenever plant height exceeds plant width. Under ideal growing conditions there will be 3 to 4 weeks between pinches. This time will be greatly extended under lower light and temperature. The final pinch should be given 9 to 12 weeks prior to sale.

Sometimes premature buds may be seen during the beginning of forcing on Tradewinds Hibiscus liners and Quick Starts. If buds occur, simply remove these buds from leaf axils for the first 3 to 4 weeks after forcing begins, to focus the plant's energy into growth instead of flower development.

Spacing: Plants can be kept nearly pot-to-pot until the final pinch is given as long as leaves from adjacent plants do not overlap. Final spacing should be given right after the last pinch. Refer to the Scheduling section for spacing guidelines.

Growth Regulators: Under good growing conditions, plants may stretch excessively between pinches or after the final pinch, and will require growth regulators to control this stretch. Cycocel and Bonzi are both labeled for use on Hibiscus. Cycocel is more commonly used since it controls height and also helps provide uniform bud set. Bonzi is useful to control runaway stretch but it does not have the bud promotion characteristic of Cycocel.

In general, a Cycocel spray of 460 ppm (½ oz. per gal.) is applied when new shoots after each pinch are 1" to 2" long. After the final pinch, the above Cycocel spray can be applied every 2 weeks to control height if needed. Sprays can be continued until flower buds are approximately pea size.

Only spray Cycocel when media is moist and plants are turgid. Some yellowing of leaf margins may occur after spraying. That usually disappears as growth continues. Plants grown in 4½ inch pots will require growth regulators.

Pest Control

Before using any pesticides, be sure that they are registered for use in your state. See label for use rates and application methods. Always follow label directions since the label is the law.

Whiteflies:

- Avid EC
- Distance EC (eggs, nymphs, sterilizes adults)
- Endeavor
- Flagship 25 WG (nymphs, adults)
- Marathon G
- Marathon 60 WP applied as a sprench (a heavy spray with runoff onto the soil). Marathon II can also be used. See product labels for precise application directions. Best used on young plants that are actively growing. (adults, nymphs)
- Orthene TTO mixed with Tame EC (adults, nymphs)
- Safari

1- AND 2-CUTTING LINERS

- Lowest cost to meet lower price points; e.g., 4½" pots. Crop time is the same for 1- and 2-cutting liners, except 1-cutting liners will produce a somewhat smaller finished pot.
- Works best in higher light and temperature environments
- Needs one extra pinch in larger pots compared to 3-Cutting Liner
- First pinch 10 to 17 days after planting; subsequent pinches every 3 to 4 weeks if desired for fuller
- Longer crop times with more pinches, lower temperatures to lower light.

	4 ½" pots 6" - 8" centers	6 ½" pots 10" - 12" Centers
Liners per pot # Pinches	1 1	1 1
Weeks pinch to flower	9-12	9-12
Crop time	11-14 weeks	15-18 weeks

4" QUICK STARTS

- Jump-started for faster finish in specimen pots. Let us do most of the work for you!
- Quick Starts are pinched 1 to 2 weeks before shipping and breaks will emerge.
- First pinch 10 to 17 days after planting; subsequent pinches every 3 to 4 weeks if desired for fuller
- Longer crop times with more pinches, lower temperatures to lower light.

	8" pots 14" - 16" centers	10" pots 20" - 14" centers	12" pots 24" centers
Liners per pot # of Pinches	1 0	2 0	2 1
Weeks pinch to flower	9-12	9-12	9-12
Crop time	9-12 weeks	9-12 weeks	13-16 weeks

