

# Technical Guide HARDY HIBISCUS HYBRIDS Hibiscus Cordial Series

'Brandy Punch' USPP#18938
'Cherry Brandy' USPP#18944

'Cinnamon Grappa' USPP#18964
'Peppermint Schnapps' USPP#18939

# License for propogation is required

# TRANSPLANT LINERS

**POT SIZE:** Transplant one 72- or Deep 30-cell liner per 8- to 12-inch (20 to 30 cm) pot for outdoor production. Plant so the top of the root ball is level with surrounding media.

**MEDIA**: Reputable, well-aerated mix such as perennial mix with composted pine bark.

**VERNALIZATION:** Not required for flowering. Vernalization of cell flats is not recommended. High losses occur when overwintering cells.

# **GROWING ON**

See Regional Guidelines for USA Southern regions I and II and Northern region III for more details.

**MEDIA pH**: 5.5 to 6.2

Media EC: Standard for 1-gallon (4 litre) pot

is 1.5 to 3.

**MOISTURE:** Maintain consistent moisture. Plants should not be allowed to wilt. Wilting will cause leaf yellowing and bud drop. To prevent occasional fungal or bacterial leaf spot, overhead watering is not recommended.

**FERTILIZER:** Use constant fertilization program of 150 to 200 ppm nitrogen from an N-P-K fertilizer with the majority of the nitrogen in nitrate form. Fertilizer should contain micronutrients. Example formulations include: 20-10-20, 15-11-29, 20-19-18.

**SUPPLEMENTAL LIGHTING:** Long days are required for flowering. The minimum day length is 12 hours. When long days are not naturally occurring, use lights to extend day length to 16 hours or night-interruption lighting from 10 p.m. to 2 a.m. with 10 footcandles. This will speed flowering. Light intensity is also important for a good crop. Provide maximum available light for production. Low light will cause fewer

# **VARIETY FEATURES**

- Habit is shorter and fuller than industry standards
- Boasts 8- to 10-inch (20 to 25 cm) blooms
- Unique maple-leaf-shaped foliage in green or bronze/purple



Hibiscus 'Peppermint Schnapps'



Hibiscus 'Brandy Punch'



Hibiscus 'Cherry Brandy'



Hibiscus 'Cinnamon Grappa'



Hibiscus 'Peppermint Schnapps'

branches, fewer flowers, stretched plants and longer crop times.

**TEMPERATURE**: Warm temperatures are required for flowering. Need a minimum of 68°F (20°C) night temperatures for finishing. Keep inside a warm greenhouse if not warm enough outdoors. Do not be alarmed if temperatures dip below 68°F (20°C) at night. Lower temperatures do not harm plants but can delay bud development.

**COMMON PESTS:** Whiteflies, spider mites, and Japanese beetles. Consider granular Marathon application at transplant. Scout and spray accordingly during production. Orthene and Sevin are effective for control but not eradication of Japanese beetles. Before using any pesticides be sure they are registered for use. Follow label directions. The label is the law

**COMMON DISEASES**: Hibiscus may benefit from a preventative fungicide drench after transplant targeting Phytopthera. Follow label directions. The label is the law.

**PINCHING:** If pinched liners are received, then no additional pinch is necessary for finishing. If unpinched liners are received, either pinch at transplant or pinch about 7 to 14 days after transplant. Pinch to 3 to 5 nodes.

**SPACING**: Can keep pot tight until leaves from neighboring plants begin to overlap. Space plants up to 2½ times the pot diameter to encourage fullness and branching, and to reduce stretch.

**GROWTH REGULATORS:** Growth regulators are not needed for 8 inch (20 cm) and larger pots with adequate spacing. If desired, Cycocel is a good choice for most growers. Do not apply until the shoot length is about 1/2" to 1" (1.3 to 2.5 cm) long and do not apply after visible bud. B-Nine can slow flowering so only add B-Nine when Cycocel rates need to be above 750 ppm to control height. Use caution since high rates of Cycocel can burn. Timing and chemical concentration will depend on crop temperature.



# **SCHEDULING**

Also see schedule for detailed USA regional information. Note: The regional differences are primarily seasonality. Climate in the South and Southwest can allow for earlier planting and, therefore, earlier finishing than in the Northeast. Temperature is the primary driver. Dates provided as examples indicate the earliest crop for each region. Depending on the time of year that hardy Hibiscus Cordials are forced, a general 10 to 12-week response is expected. Planting early in the season can slow response time and planting later in the season can speed response time. Response time can also be variety dependent but 10 to 12 weeks is a good general guideline, especially when light and temperature requirements for the crop are met. Liners are shipped to growers alive and growing, never dormant.

# **SPECIAL FEATURES**

The Hibiscus Cordials series is shorter and fuller than the industry standards for Hibiscus moscheutos with unusual foliage. These plants boast 8- to 10-inch (20 to 25) cm) flowers and cut foliage that is green or bronze in color. Full, well-branched plants are easy to produce and guaranteed showstoppers with their rich-colored foliage and sharp flower colors. All four varieties are heat loving and perform best in the heat of summer. Remember, in the garden Hibiscus are late to emerge from dormacy.

# **GARDEN STATISTICS**

**LIGHT**: Full sun

MATURE HEIGHT: 72 inches (183 cm)\* MATURE SPREAD: 48 inches (122 cm) **USDA HARDINESS ZONE:** 5 to 9 See detailed regional information on

following pages

Must Have Perennials™ 115 Third St. S.E.

Barberton, OH 44203 U.S.A.

p: 330.745.2143 **f**: 330.745.3098

w: musthaveperennials.com

<sup>\*</sup> Based on Pennsylvania trial garden performace

# **Hardy Hibiscus Cordials Series**

**Southern Region I -** Outdoor regional production guidelines planting is best in mid-April and May, with flowering in June through August.

## **Day 1 - April 17**

(first recommended plant date)

- Receive rooted liners and transplant into a well-drained root media with 5.5 to 6.2 pH. Use a reputable well-aerated mix, such as a perennial mix with composted pine bark.
- Plant so that the top of the root ball is level with the surrounding root media, one liner into an 8" to 12" (20 to 30 cm) pot.
- Never let the plants wilt from water stress.
- Begin constant liquid feed with 150 to 200 ppm nitrogen from an N-P-K fertilizer where the majority of the nitrogen is in the nitrate form. Fertilizer should contain micronutrients. Example formulations include: 20-10-20, 15-11-29, 20-19-18.
- Long days are required for flowering. The minimum day length is 12 hours. Using lights to extend the day length to 16 hours or night-interruption lighting from 10 p.m. to 2 a.m. with 10-foot candles will speed flowering.
- Warm temperatures are required for flowering. A minimum of 68°F (20°C) night temperature is critical for successful flowering and timing. Planting in the Deep South earlier than mid-April will require supplemental heat and, therefore, greenhouse space to insure timing. Measure the temperature at the shoot tips because bottom heat may not be enough. Once natural conditions hit your target temperature, the crop can move outside.
- If growing outdoors, do not be alarmed if temperatures dip down below 68°F (20°C) at night.
   Lower temperatures do not harm plants but can delay bud development.
- Pot spacing can be kept tight until leaves from neighboring plants begin to overlap.
- To prevent occasional fungal or bacterial leaf spot, overhead watering is not recommended. Consider an application of granular Marathon for whitefly.

## Davs 2 to 9

- Assess need for pinch at about 7 to 14 days after transplant. Pinch to about 3 to 5 nodes if never been pinched.
- Hibiscus may benefit from a preventative drench targeting Phytopthora after planting.
- Continue constant liquid feed at the rate used at planting and continue lighting the crop to meet day length requirement for flowering.
- Consider using a preventative pesticide spray for spider mites and whitefly.
- Growth regulators are not needed for 8-inch (20 cm) and larger pots with adequate spacing. If growing in smaller pots or tighter spacing, a growth regulator can be used for height control. Cycocel is a good choice for most growers. Do not apply until the shoot length is about ½" to 1" (1.3 to 2.5 cm) long and do not apply after visible bud. B-Nine can slow flowering,

so only add B-Nine when Cycocel rates need to be above 750 ppm to control height. Use caution since high rates of Cycocel can cause burn. Timing of applications and concentration of chemical will depend on the temperature of the crop.

# **Keys to Success**

- 1. Never let the plants wilt from water stress.
- 2. Long days are required for flowering.
- 3. Warm temperatures are required for flowering.

## Days 10 - 35

initial growth stages

- If plants are beginning to appear chlorotic despite fertilizer regime, consider checking temperatures to make sure an average daily temperature of 68°F (20°C) is being met. Lower temperatures can cause chlorosis.
- Continue constant liquid feeding as directed above and maintain specific temperature and lighting requirements.
- Check the pH and EC levels. Recommended pH is 5.5 to 6.2. EC level will depend on your fertilizer formulation and water quality.
- Routine scouting and preventative sprays for aphids, white fly and spider mites are beneficial.
- Consider a preventative fungicide spray targeting leaf spot.
- Space plants up to 2½ times the pot diameter if leaves are beginning to overlap.

# Days 35 - 84

finishing stages

- Space plants up to 2½ times the pot diameter if leaves are beginning to overlap.
- Continue constant liquid feed at 150 to 200 ppm nitrogen and continue lighting crop to meet day length requirement for flowering.
- Scout for aphids, whitefly, and spider mites and spray accordingly.
- Take care not to let plants wilt, as they grow larger.
   Wilting will cause leaf loss and yellowing, along with flower and bud drop.
- Watch for Japanese beetles feeding on plants and buds. Orthene and Sevin are effective for control but not eradication.
- Depending on the time of year the Hibiscus is forced, a general 10 to 12-week response is expected. Planting early in the season can slow response time and planting later in the season can speed response time.

## Southeast Trial Location: Pendleton, S.C., USA

Always read and follow the pesticide label to the specifications of the chemical manufacturer. The label is the law.

# Hardy Hibiscus Cordials series

**SOUTHERN REGION II** - Outdoor Regional Production Guidelines
Planting is best in May through early June, with flowering in July through September

### Day 1 - May 1

(first recommended plant date)

- Receive rooted liners and transplant into a well-drained root media with 5.5 to 6.2 pH. Use a reputable well-aerated mix, such as a perennial mix with composted pine bark.
- Plant so that the top of the root ball is level with the surrounding root media, one into an 8" to 12" (20 to 30 cm) pot.
- Never let the plants wilt from water stress.
- Begin constant liquid feed with 150 to 200 ppm nitrogen from an N-P-K fertilizer where the majority of the nitrogen is in the nitrate form. Fertilizer should contain micronutrients. Example formulations include: 20-10-20, 15-11-29, 20-19-18.
- Long days are required for flowering. The minimum day length is 12 hours. Using lights to extend the day length to 16 hours or night-interruption lighting from 10 p.m. to 2 a.m. with 10-foot candles will speed flowering.
- Warm temperatures are required for flowering. A
  minimum of 68°F (20°C) night temperature is critical
  for successful flowering and timing. Planting in the
  Mid-South before early May will require supplemental heat and, therefore, greenhouse space to insure
  timing. Measure the temperature at the shoot tips because bottom heat may not be enough. Once natural
  conditions hit your target temperature, the crop can
  move outside.
- If growing outdoors, do not be alarmed if temperatures dip down below 68°F (20°C) at night. Lower temperatures do not harm plants but can delay bud development.
- Pot spacing can be kept tight until leaves from neighboring plants begin to overlap.
- To prevent occasional fungal or bacterial leaf spot, overhead watering is not recommended. Consider an application of granular Marathon for whitefly.

### Days 2 - 9

- Assess need for pinch at about 7 to 14 days after transplant. Pinch to about 3 to 5 nodes if never been pinched.
- Hibiscus may benefit from a preventative drench targeting Phytopthora after planting.
- Continue constant liquid feed at the rate used at planting and continue lighting the crop to meet day length requirement for flowering.
- Consider using a preventative pesticide spray for spider mites and whitefly.
- Growth regulators are not needed for 8-inch (20 cm) and larger pots with adequate spacing. If growing in smaller pots or tighter spacing, a growth regulator can be used for height control. Cycocel is a good choice for most growers. Do not apply until the shoot length is about ½" to 1" (1.3 to 2.5 cm) long and do not apply after visible bud. B-Nine can slow flowering, so only

add B-Nine when Cycocel rates need to be above 750 ppm to control height. Use caution since high rates of Cycocel can cause burn. Timing of applications and concentration of chemical will depend on the temperature of the crop.

## **Keys to Success**

- 1. Never let the plants wilt from water stress.
- 2. Long days are required for flowering.
- 3. Warm temperatures are required for flowering.

# Days 5 - 35

initial growth stages

- If plants are beginning to appear chlorotic despite fertilizer regime, consider checking temperatures to make sure an average daily temperature of 68°F (20°C) is being met. Lower temperatures can cause chlorosis.
- Continue constant liquid feeding as directed above and maintain specific temperature and lighting requirements.
- Check the pH and EC levels. Recommended pH is 5.5 to 6.2. EClevel will depend on your fertilizer formulation and water quality.
- Routine scouting and preventative sprays for aphids, white fly and spider mites are beneficial.
- Consider a preventative fungicide spray targeting leaf spot.
- Space plants up to 2½ times the pot diameter if leaves are beginning to overlap.

### Days 35 - 84

finishing stages

- Space plants up to 2½ times the pot diameter if leaves are beginning to overlap.
- Continue constant liquid feed at 150 to 200 ppm nitrogen and continue lighting crop to meet day length requirement for flowering.
- Scout for aphids, whitefly, and spider mites and spray accordingly.
- Take care not to let plants wilt, as they grow larger.
   Wilting will cause leaf loss and yellowing, along with flower and bud drop.
- Watch for Japanese beetles feeding on plants and buds. Orthene and Sevin are effective for control but not eradication.
- Depending on the time of year the Hibiscus is forced, a general 10 to 12-week response is expected. Planting early in the season can slow response time and planting later in the season can speed response time.

### Southeast Trial Location: Pendleton, S.C., USA.

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# Hardy Hibiscus Cordials series

**NORTHERN REGION III** - Outdoor Regional Production Guidelines

Planting is best in late May through early June, with flowering in July through September

## Day 1 - May 29

(first recommended plant date)

- Receive rooted liners and transplant into a well-drained root media with 5.5 to 6.2 pH. Use a reputable well-aerated mix, such as a perennial mix with composted pine bark.
- Plant so that the top of the root ball is level with the surrounding root media, one into an 8" to 12" (20 to 30 cm) pot.
- Never let the plants wilt from water stress.
- Begin constant liquid feed with 150 to 200 ppm nitrogen from an N-P-K fertilizer where the majority of the nitrogen is in the nitrate form. Fertilizer should contain micronutrients. Example formulations include: 20-10-20, 15-11-29, 20-19-18.
- Long days are required for flowering. The minimum day length is 12 hours. Using lights to extend the day length to 16 hours or night-interruption lighting from 10 p.m. to 2 a.m. with 10-foot candles will speed flowering, but not necessary when planted May 29.
- Warm temperatures are required for flowering. A minimum of 68°F (20°C) night temperature is critical for successful flowering and timing. Planting in the North earlier than the end of May will require supplemental heat and, therefore, greenhouse space to insure timing. Measure the temperature at the shoot tips because bottom heat may not be enough. Once natural conditions hit your target temperature, the crop can move outside.
- If growing outdoors, do not be alarmed if temperatures dip down below 68°F (20°C) at night. Lower temperatures do not harm plants but can delay bud development.
- Pot spacing can be kept tight until leaves from neighboring plants begin to overlap.
- To prevent occasional fungal or bacterial leaf spot, overhead watering is not recommended. Consider an application of granular Marathon for whitefly.

### Days 2 - 9

- Assess need for pinch at about 7 to 14 days after transplant. Pinch to about 3 to 5 nodes if never been pinched.
- Hibiscus may benefit from a preventative drench targeting Phytopthora after planting.
- Continue constant liquid feed at the rate used at planting and continue lighting the crop to meet day length requirement for flowering.
- Consider using a preventative pesticide spray for spider mites and whitefly.
- Growth regulators are not needed for 8-inch (20 cm) and larger pots with adequate spacing. If growing in smaller pots or tighter spacing, a growth regulator can be used for height control. Cycocel is a good choice for most growers. Do not apply until the shoot length is about ½" to 1" (1.3 to 2.5 cm) long and do not apply after visible bud. B-Nine can slow flowering,

so only add B-Nine when Cycocel rates need to be above 750 ppm to control height. Use caution since high rates of Cycocel can cause burn. Timing of applications and concentration of chemical will depend on the temperature of the crop.

# **Keys to Success**

- 1. Never let the plants wilt from water stress.
- 2. Long days are required for flowering.
- 3. Warm temperatures are required for flowering.

## Days 10 - 35

initial growth stages

- If plants are beginning to appear chlorotic despite fertilizer regime, consider checking temperatures to make sure an average daily temperature of 68°F (20°C) is being met. Lower temperatures can cause chlorosis.
- Continue constant liquid feeding as directed above and maintain specific temperature and lighting requirements.
- Check the pH and EC levels. Recommended pH is 5.5 to 6.2. EC level will depend on your fertilizer formulation and water quality.
- Routine scouting and preventative sprays for aphids, white fly and spider mites are beneficial.
- Consider a preventative fungicide spray targeting leaf spot.
- Space plants up to 2½ times the pot diameter if leaves are beginning to overlap.

## Days 35 - 84

finishing stages

- Space plants up to 2½ times the pot diameter if leaves are beginning to overlap.
- Continue constant liquid feed at 150 to 200 ppm nitrogen and continue lighting crop to meet day length requirement for flowering.
- Scout for aphids, whitefly, and spider mites and spray accordingly.
- Take care not to let plants wilt, as they grow larger.
   Wilting will cause leaf loss and yellowing, along with flower and bud drop.
- Watch for Japanese beetles feeding on plants and buds. Orthene and Sevin are effective for control but not eradication.
- Depending on the time of year the Hibiscus is forced, a general 10 to 12-week response is expected. Planting early in the season can slow response time and planting later in the season can speed response time.

Northeast Trial Locations: Lancaster, PA, USA (Latitude 40° N and Longitude 76° W) and Leamington, Ontario, Canada. Always read and follow the pesticide label to the specifications of the chemical manufacturer. The label is the law.

