

# Helleborus Gold Collection®

## HAPPY HOLIDAYS!

### GENERAL DESCRIPTION

The outstanding Helleborus Gold Collection® brings new life to winter and early spring-blooming Hellebores. Flowering the first year, they are long blooming, with lots of buds and blossoms. The large flowers are upward and outward facing, making it easy to appreciate their natural beauty. Jacob has pure white blooms atop burgundy stems. All varieties are evergreen, deer resistant, no-fuss, reliable additions to modern gardens. *Hybridized by Heuger.*

### MARKETING SUGGESTIONS

By following our guidelines for the Happy Holidays! growing program, you can create new sales opportunities and improved cash flow in the off-season with the Helleborus Gold Collection®.

#### HAPPY HOLIDAYS!

**Objective:** florist quality, blooming plant to enjoy indoors, then out

**Uses:** Holiday or hostess gift; indoor, seasonal color; outdoor plant

**Sales Window:** mid- November–mid-January

**Market Segment:** florists, grocery stores, independent garden centers, mass merchants

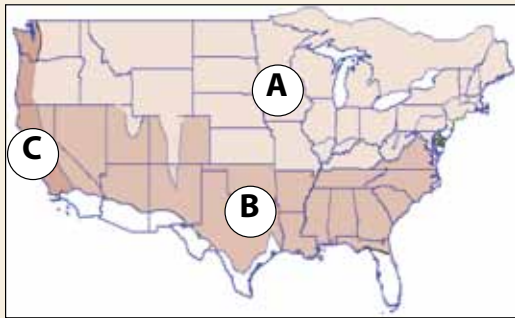
**Retailer Benefits:** higher margin crop; suitable for creating indoor merchandizing displays; cross-sales with Christmas cactuses, Cyclamen and Poinsettias



### PLANT DATA

*H. niger* 'HGC Jacob': USPP #17799; asexual propagation prohibited; Height: 9–12"; Spread: 13"; Bloom time: mid-Nov–mid-Jan; USDA Zone: 4(-30°)

### PLANTING DATES



Please note that using the planting date listed will produce a full, beautiful, gallon plant. Planting even earlier will improve the quality. Later transplant will result in a smaller plant with more modest flowering.

White areas shown in the south are not suitable for growing Hellebores.

Program	Finish Size	Plug Size	Region A Planting Date	Region B Planting Date	Region C Planting Date
<b>HAPPY HOLIDAYS!</b>	Quart	72-cell	May 15–Jun 1	May 1–May 15	Jun 1–Jun 15
<b>HAPPY HOLIDAYS!</b>	Gallon	72-cell	Apr 15–May 1	Mar 1–Mar 15	Apr 1–Apr 15

### GROWER NOTES

The following information is based on our own experience with this crop in the Pacific Northwest. Growth will vary depending on location, climate, growing medium and cultural practices. As always, where chemical use is involved, read the labels, follow the instructions and practice careful trialing methods.

- Avoid planting when temperatures are above 80° F. Early planting in cooler temperatures provides the best conditions for critical root development.
- Plant liners level with soil, taking care not to bury the crown.
- *Helleborus niger* prefers soil high in organic matter with good air space and drainage. Avoid soils with a high nitrogen starter charge. Consider the longer crop time and the longevity of the lime in your regular mix to avoid pH drops and possible nutrient problems late in production.

continued

### GROWER NOTES *continued*

- A preventative treatment for root or crown rot is recommended after transplant, either through chemical drenching or the addition of RootShield® (*Trichoderma harzianum*) or other microbial soil additives. If using microbial products, be aware of the effect of fungicides on these products.
- Monitor root development and fertility levels to avoid excess salts and prevent root rot.
- *Helleborus niger* is sensitive to excess phosphorus in the soil early in production. If symptoms are observed, consider tissue analysis and leach plants with clear water to reduce levels in the soil. Plants will recover quickly if leached when symptoms first develop.
- Fertilize based on the following seasonal guidelines:
  - During cool spring months, apply balanced fertilizer higher in nitrogen content.
  - During summer heat, significantly decrease or discontinue fertilizer use; Hellebore roots are sensitive to fertilizer burn.
  - During fall months, apply balanced fertilizer higher in potassium.
- Screen the pH and EC of the potting medium routinely to maintain the recommended levels:
  - EC: 1.0–1.8 mS/cm during the growing season; when forcing plants: 1.0 mS/cm
  - pH: 5.5–6.0
- Use growth regulators judiciously to prevent petiole stretch. Frequency and rates may need adjustment depending on cultivar and growing conditions. A general guideline for Jacob is to spray once monthly in early June, July and August at 3750–5000 ppm daminozide (B-Nine® or Dazide®) and 5–10 ppm paclobutrazol (Bonzi® or Paczol®). Discontinue growth regulators after early August, or bud development may be affected. Do not overregulate.
- It is best to grow plants unspaced for as long as possible to keep roots cool. Soil temperature is the most critical factor in healthy root development. Plants will benefit from higher light levels if temperatures are below 80° F and foliage can provide root shading to help lower soil temperatures. When plants become overcrowded enough to affect spray coverage and air circulation, space and provide overhead shade.
- Keep plants evenly moist, but not overwet. Do not allow to wilt repeatedly.
- Monitor for thrips, aphids, *Botrytis* and leaf spots during the growing season and treat accordingly. Check crowns and developing flower buds carefully for thrips, as they will damage flowers by eating stamens at the bud stage, and damage may go unnoticed until bloom.
- *Helleborus* requires three weeks or more of chilling under 40° F prior to bloom. Fall weather varies by locale, but typically natural bloom will be early December through January.
- If plants are grown outdoors, protect from a hard freeze.



Phosphorus damage



Thrips damage (on right)



Fungicide damage

### TIPS FOR FORCING EARLY BLOOM

Holiday sales require blooming plants beginning in mid-November; for best timing, cooling must happen during October. While some northern locales can provide adequate cooling early, other growers may have to rely on refrigeration. Refrigeration can also enhance bloom quality and quantity. Follow this regime for programmed early sales:

- Begin cooling ten weeks prior to desired ship date. For mid-November (week 46), start on week 36. Please note that it is important that plants have healthy roots and flower buds are developed in the crown prior to cooling.
- Apply a preventative fungicide and remove any bad foliage prior to loading into the cooler.
- Load into the cooler on racks (lights not needed); ventilation and air circulation are beneficial. Plants should be moist, but have no water on the foliage or crown.
- Cool to 32–35° F for three weeks, checking regularly for *Botrytis* or dry plants.
- Remove from cooler and place in a cool greenhouse (45° F) for four weeks. Plants can also be placed outdoors if temperatures are not regularly below freezing. Buds should begin to emerge during this time.
- For the final 2–3 weeks, move indoors and adjust greenhouse temperatures to hold at 58–60° F days, 50–52° nights. Lights are not needed; if used for light *quality*, do not use long-day treatments. Continue to keep moist and feed regularly during this period, but watch for *Botrytis* on crown and flower buds as they emerge.
- Use caution when using fungicides on plants in bud or bloom, as they may cause damage to the blossoms.

