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Bidens

Pirate's Treasure

Pirate's Treasure has a large, showy, semi double flower. Its upright spreading habit makes this plant ideal as a stand alone or in mixed containers. This heat tolerant plant has a very long blooming season and will stand out during the hottest summer days. Pirate's Treasure is well suited for 4", 6", 1 gallon, and 8" containers. Total crop time is typically 11-15 weeks including time in propagation.

Bidens is available from the Paul Ecke Ranch as an unrooted or rooted cutting.

[Click here for live online inventory](#)

In the Greenhouse.....

Propagation

Bidens can be propagated in various tray sizes including 32,50,72,84 and 105's. Stick one cutting per cell.

Media

- Choose a well-drained aerated propagation media
- Avoid media containing peat moss which will hold too much water
- Choose a blended media with other components or inorganic media such as Oasis® or Rockwool®

Bottom Heat

- Bottom heat will promote healthy root development.
- Maintain bottom heat at 70-75°/21-24°C.
- Mist will cool the media temperature. Monitor media temperature closely and frequently.

Rooting Hormones

- Bidens roots easily without the use of rooting hormone. However, time to root and uniformity in rooting may be improved with use of a hormone.

- Either liquid or powder formulations work equally well. Choose a product with up to 2500 ppm IBA or up to 500 ppm NAA.

Misting

- Average days with mist vary from 6-9 days depending on environmental conditions in the greenhouse.
- Mist cuttings so they remain turgid but avoid over misting that results in saturated media.
- Over misting will result in slow rooting and possible problems with root rot and botrytis.
- Mist should be eliminated or significantly reduced as roots form.

Fungicide Applications

- Within 48 hours after sticking apply a fungicide spray for prevention of botrytis

Growth Regulators

- Growth regulating should not be necessary.

Pinching

- Pinch or shear cuttings in week 3 of propagation.

Fertility

- Begin feeding as roots are visible. Begin with 75 ppm nitrogen then increase to 150 ppm. Choose a fertilizer with low levels of ammonium based nitrogen and avoid overhead feeding with fertilizer containing phosphorus
- Maintain pH at 5.6-5.9
- Maintain EC at 0.75-0.80 mS/cm (SME)

Propagation Cycle: 5 weeks

Growing ON.....

Media

Choose a media with the following traits:

- Good aeration
 - Porosity between 5-15%
 - Sterile
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Irrigation/Fertilization

- Avoid excess irrigation and fertilization while plants are establishing which can lead to slow root development.
 - **Fertilizer regime:**
 - Begin fertilizing 2 weeks after transplant
 - Choose a complete balanced fertilizer complete with minor elements
 - Apply 200-250 ppm constant liquid feed
 - A slow release product may also be used to supplement a constant liquid feed program and may provide improved performance for the consumer
 - Maintain pH between 5.5-6.3
 - Optimum EC is 2 to 2.5 mS/cm (SME). Provide periodic clear water application if excess salts accumulate.
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Temperature/Humidity

Bidens can be grown successfully at a wide range of temperatures but for best results the crop should be established warm. As root growth and top growth begins temperatures can be reduced.

Temperature regime:

Establishing temperature: 65°/18C average daily temperature

Temperatures for growing on: 60-70°/13-21C day and 55-60°F/11-13°C night

At lower temperatures:

- Growth will be slower and time in production longer

At warmer temperatures:

- Excess vegetative growth may be a problem

Relative Humidity:

Maintain relative humidity below 70% and provide good air circulation to avoid problems with botrytis.

Light

Bidens prefers bright light. For best results grow in a greenhouse with retractable roofs or in a field production setting.

Provide:

- 5000 foot candles/53,800 lux minimum
 - 6000foot candles/64,600 lux maximum
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Spacing

Establish plants pot tight than space to:

- 4" pots – 5-6" centers (approximately 2 per sq. ft.)
 - 6" pots/1 gallon – 14" centers
 - 8" pots – 18" centers
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Pinching

1st pinch - week 3 of propagation

2nd pinch - trim once established (1-2 weeks after transplant)

Additional pinch-shape, correct stretch or time to flower (mature plants will flower 5-6 weeks after pinch)

- Apply a preventative fungicide application for botrytis at the time of pinch. Do not apply mist of water immediately after any hard pinch.
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Plant Growth Regulators

Good light levels and cultural practices are the best means of controlling stretch.

If needed, Bidens responds to:

- B-Nine® as a spray at 2500 ppm

*Apply any PGR applications prior to visible bud set to avoid delay in time to flower.

Insect and Disease Concerns

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Insects

- Aphids
- Caterpillars
- Fungus gnats
- Thrips

Diseases

- Botrytis
- Powder Mildew
- Root and stem rots

For recommended chemical controls for disease and insects please consult [The Flower Fields Federal Disease Control Chart \(463K\)](#) and [The Flower Fields Federal Insect & Mite Control Chart \(541K\)](#) at www.ecke.com. Always consult the chemical's label for rates, mixing instructions and restrictions.

CROP SCHEDULING

Product Form	# Liners per pot	Total crop time* (weeks)
4"	1	6
6" / 1 gallon	1	6-8
8"	2	6-10

If you have questions about Bidens Pirates Treasure in production please post your question on our live bulletin board at www.EckeRanchTechHelp.com or call 760-753-1134 and choose option#3 for Technical Support.

We hope the information provided will be helpful. It is based upon data and knowledge (including information provided by the recipient) considered to be true and accurate, but without independent investigation and is offered for the recipient's consideration, investigation and verification, but we do not warrant the results to be obtained. Please read all statement, recommendations, or suggestions in conjunction with any conditions of sale or use which apply to any products, or systems recommended by us. No statement, recommendation, or suggestion is intended for any use which would infringe any patent/copyright.

