

Juncus Fuseables Twisted Arrows and Twisted Dart

Juncus inflexus – *Juncus effusus spiralis* (Twisted Arrows)

Approximate seed count (multi-pelleted):
22,600-25,515 S./oz. (800-900 S./g)

Juncus tenuis – *Juncus effusus spiralis* (Twisted Dart)

Approximate seed count (multi-pelleted):
11,300-14,000 S./oz. (400-500 S./g)

Plug Production

Media

Use a well-drained, disease-free soilless media with a pH of 5.8-6.2 and an EC of 0.75 mmhos/cm (2:1 extraction).

Sowing

Plug Tray Size:

Can be produced in a 288, 128, 72 liner (European size: 264) or a similar size plug tray. Do not cover pellets.

Stage 1 – Germination takes approximately 7 to 8 days.

Germination temperature: 71 to 76°F (22 to 24°C)

Light: Light is optional.

Media Moisture: Keep the media medium wet (level 4) during germination.

Relative Humidity: Maintain 95 to 97% relative humidity until cotyledons emerge.

Stage 2

Temperature: 68 to 70°F (20 to 21°C).

Light: Can be up to 2,500 f.c. (26,900 Lux) during Stages.

Media Moisture: Reduce soil moisture slightly (level 3) to allow the roots to penetrate into the media.

Fertilizer: Apply fertilizer at rate 1 (less than 100 ppm N/less than 0.7 mS/cm EC) with a nitrate-form fertilizer with low phosphorous. Maintain a media pH of 5.8 to 6.2 and EC at 0.5 to 0.7 mS/cm (1:2 extraction).

Stage 3

Temperature: 68 to 70°F (20 to 21°C).

Light: Can be up to 2,500 f.c. (26,900 Lux)

Media Moisture: Moisture level can be reduced from medium to medium dry (level 3 to 2). Do not allow the seedlings to wilt.

Fertilizer: Increase the fertilizer rate to 2 (100 to 175 ppm N/ 0.7 to 1.2 mS/cm EC). Maintain a media pH of 5.8 to 6.2 and EC at 0.7 to 1.0 mS/cm (1:2 extraction).

Stage 4

Temperature: 65 to 67°F (18 to 19°C).

Light: Can be up to 5,000 f.c. (54,000 Lux)

Media Moisture: Maintain wet/dry cycle. Do not allow the seedlings to wilt.

Fertilizer: Keep the fertilizer rate to 2 (100 to 175 ppm N/ 0.7 to 1.2 mS/cm EC). Maintain a media pH of 5.8 to 6.2 and EC at 0.7 to 1.0 mS/cm (1:2 extraction).

Growth Regulators

Not needed.

Growing On to Finish

Media

Use a well-drained, disease-free soilless media with a pH of 5.5 to 6.2 and an EC of 0.75 mmhos/cm

Temperature

Nights: 59 to 64°F (15 to 17°C).

Days: 62 to 73°F (16 to 22°C).

Plants can be grown under temperatures as low as 50°F (10°C) but the crop time will increase significantly.

Light

As high as possible while maintain moderate temperature.

Irrigation

Keep media moisture. Avoid growing dry as this will cause yellowing of *Juncus effusus spiralis*. Can be grown under saturated conditions.

Fertilizer

Starting a week after transplant, apply fertilizer at rate 3 (175 to 225ppm N/1.2 to 1.5 mS/cm) once a week from nitrate-form fertilizer with low phosphorus. Avoid using excessive ammonia nitrogen-form fertilizers and overfeeding, as these will result in less upright plants. Maintain the media EC at 1.50 to 2.00 mS/cm and pH at 5.5 to 6.2.

Growth Regulators

PGRs are not needed

Pinching

Pinching is not needed.

Container Size

306 premium pack: 1 plug per cell

2.5-in. (6-cm) pot: 1 plug per pot

4-in. (10-cm) pot: 1 plug per pot

6-in. (15-cm) pot: 1 to 3 plugs per pot

1-gallon (18-cm) pot: 1 to 3 plugs per pot

Crop Scheduling

Sow to transplant (288/264-cell plug tray):

7 to 8 weeks

Sow to transplant (128/105, 72-cell plug tray): 8 to 9 weeks

Transplant to saleable size (from 288 cell):

Container Size	Plants per Pot/ Basket	Weeks from Transplant	Total Weeks
306 premium pack	1	6-7	13-15
2.5-in. (6-cm) pot	1	5-6	12-13
4 to 4.5-in. (10 to 11-cm) pot	1	7-8	14-16
6 to 6.5-in. (15 to 16-cm) pot	3	7-8	14-16
Gallon	3	7-8	14-16

Note: Add 2 more weeks to the crop time when planting 1 plug per 6-in. (16-cm) and gallon (18-cm) container.

Common Problems

Insects: No serious problems.

Diseases: No serious problems.

Note: Growers should use the information presented here as a starting point. Crop times will vary depending on the climate, location, time of year, and greenhouse environmental conditions. Chemical and PGR recommendations are only guidelines. It is the responsibility of the applicator to read and follow all the current label directions for the specific chemical being used in accordance with all regulations.

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