



955 Benton Ave., Winslow, ME 04901 • Phone: 1-877-564-6697 • Fax: 1-800-738-6314  
 Email: service@johnnyseeds.com • Web Site: Johnnyseeds.com

### Materials Included

- Seeder body
- Two drive wheels
- Seed shaft
- Oiled ashwood handle
- Self-tapping #4 x ½" round-head woodscrew

### Additional Materials Needed

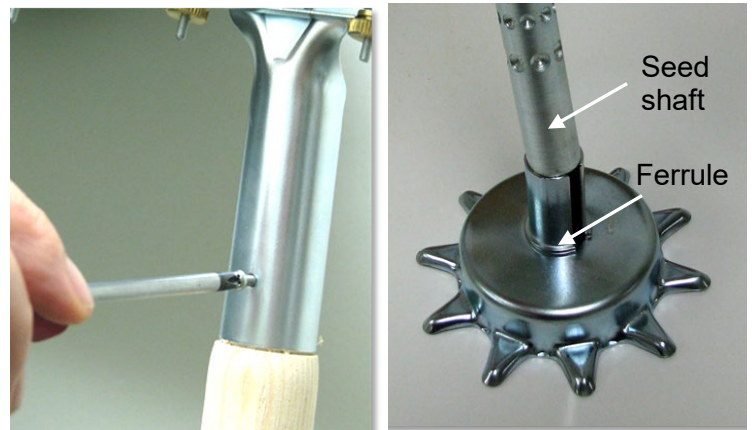
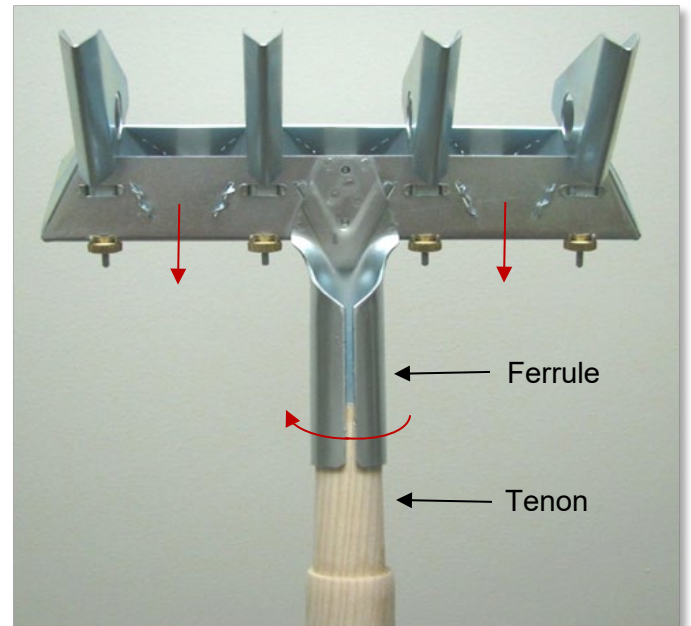
- #1 Phillips screwdriver
- Round-jaw pliers



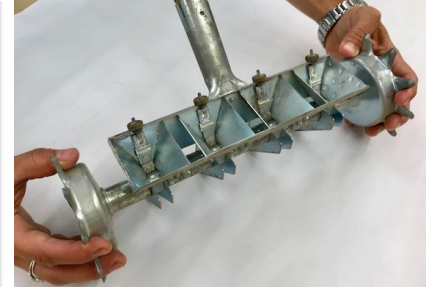
## ASSEMBLY INSTRUCTIONS

**Note:** The handle for this seeder mounts in a compression type ferrule (tubular metal collar). For a secure fit, please follow the directions below with care.

1. With the handle positioned upside down and resting on the floor or a table, gently insert the tapered tenon joint end of the handle into the metal ferrule of the seeder body as far as it will easily go by hand. DO NOT force the handle into the ferrule or you could damage your seeder.
2. Push down on the seeder body while slowly rotating the handle, until the tenon is fully seated in the ferrule. (See right.) Once seated, rotate until the Johnny's logo is on the same side of the ferrule as the predrilled screw hole.
3. Using a #1 Phillips screwdriver, secure the seeder body onto the handle with the #4 x ½" wood screw provided. (See near right.)
4. Insert the seed shaft into the ferrule of one wheel at a slight angle so the compression ferrule expands to receive the shaft. (See far right.)



5. Slide the shaft into the seeder body so that the desired seed hole size is centered within the base of the four seed hoppers. (See right.)
6. Once the seed shaft is in place, repeat Step 4 to install the second wheel onto the opposite end of the shaft. **Leave a slight gap between the wheel ferrules and the seeder body so the wheels and axle turn freely, without friction.**
7. For proper operation, the wheel ferrules must grip the shaft firmly without slipping. If the wheel ferrules do not grip tightly enough, they can be adjusted by gently compressing the ferrule with a pair of round-jaw pliers until its diameter is slightly smaller than that of the shaft. (See below, left.) **Be careful to not over-compress.**
8. The two drive wheels on either side of the seeder should be turned so that the teeth match up with one another. (See far right.) If the teeth do not line up, the seeder may work inefficiently in the field.



## SEEDER OPERATION

### Bed Preparation

The Four-Row Pinpoint Seeder is designed to be used on a well-prepared seedbed. For the seeder to function properly, it is necessary to prepare the area to be seeded so that its surface is relatively smooth, level, and free of debris and old crop residue. It is also helpful to firm your seedbed before using a precision seeder such as the Four-Row Pinpoint Seeder, and this can be accomplished with Johnny's Seedbed Roller or a similar bed preparation tool.

### Choosing a Hole Size

Ideally, you want to choose a hole size where your seed sits loosely in the bottom of the hole, fully below the surface of the seed shaft. It is normal for more than one seed to drop per hole if the seed is flat or oblong in shape, whereas round seed is easier to singulate. Choosing the correct hole size for each seed variety ensures that your seed will not crack or jam while the seeder is in use.

**Note:** A certain amount of experimentation can be expected to find the most appropriate hole size for a crop. Please take the time to find the hole size that works best for your desired seed variety.

### Crop Recommendations

The shaft of the Four-Row Pinpoint Seeder offers the user four seed-hole sizes for seeding a variety of different crops. Use the following chart as a general guide to identify the hole size for sowing your desired seed.

**Note:** Hole diameters and spacing are approximate.

Seed Shaft	Hole Diameter	# Holes on Shaft	In-Row Spacing	Recommended Crops
A	3mm	9	1 inch	Arugula, Endive, Lettuce (raw), Radicchio
B	4mm	9	1 inch	Carrot (raw), Green Onion, Mâche
C	5mm	9	1 inch	Carrot (pelleted), Lettuce (pelleted), Radish
D	6mm	7	1¼ inch	Spinach

## Seeding

The Four-Row Pinpoint Seeder is designed to be *pulled*. To keep your crop rows straight, first run a line along one edge of the bed to follow for your first pass. From there, line up the wheels for your second pass with the seed furrows from your first pass, and so on. You can easily make three passes on a 30"-wide bed if you line up your wheel tracks with the last seeded row from the previous pass.

## Adjustments

**Seeding Rate.** The typical seeding rate is one seed per hole. To adjust the rate slightly, you can tighten or loosen the knurled nuts to move the brushes up or down into the seeder body. (See right.) Setting the brush slightly higher, away from the seed shaft, will allow seeds to fall more freely. This can be helpful if you are sowing seed slightly bigger than the hole. You can also choose an oversized hole if a greater seeding density is desired.

**Seeding Depth.** The seeding depth is determined by the angle at which you hold the handle in relation to the ground. Holding the handle lower to the ground will sow seeds deeper in the soil and raising the handle will sow seeds closer to the soil surface. It will take some practice to consistently sow at the same depth.

**Row Spacing.** The Four-Row Seeder has four seed hoppers that seed in rows spaced approximately 2¼" apart (see below). Simply omit seed from hoppers for a wider row spacing.

