

JANG SEEDER

How to Maximize Its Potential

Hensley's SEED CO.
DENVER · COLORADO

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PRESENTED BY THE HENSLEY'S TEAM

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the original research farm

Trial site in USDA zone 5b

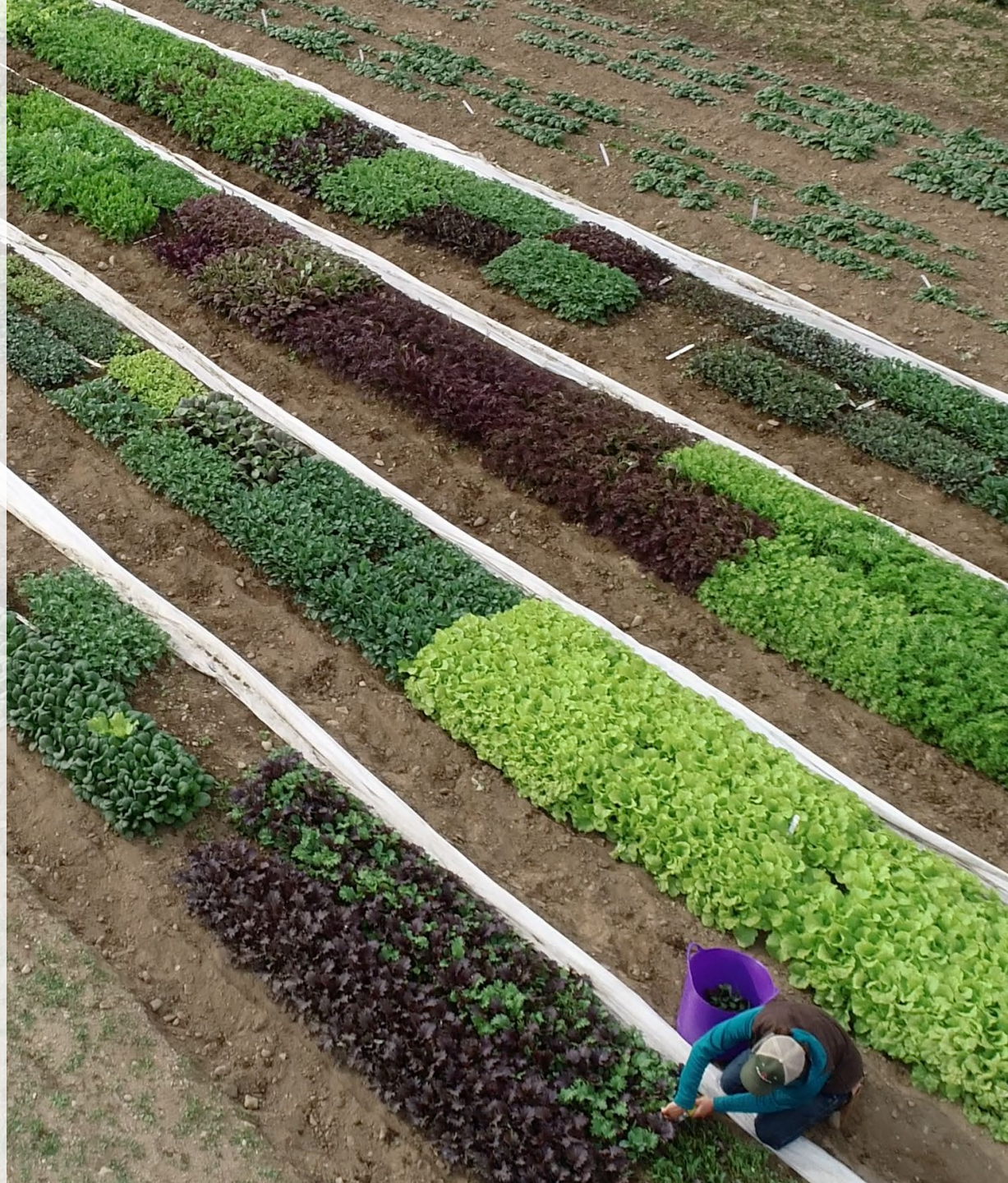
- 200 acres managed
- 27 miles of beds in production
- Emphasis on soil heath:
  - Wide production spacing to facilitate crop rotations
  - 50+% of acreage in cover cropping annually
  - Extensive organic mulch inputs



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TRIALING & SELECTION

- Approx. 3,000 varieties trialed in 2022, resulting in over 100 products added
- Year-round effort to select superior new products and substitutions
- Includes regional trials across the country with growers, universities, field day events, & more



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Benefits of the Jang Seeder

- Sows a wide range of crops
- Highly customizable
- Limits seed waste and the need for thinning, saving you money and labor
- Accurate seeding in a variety of soil conditions
- Accessories available



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VIDEO

Anatomy of the Jang JP-1

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Jang Seed Roller 101

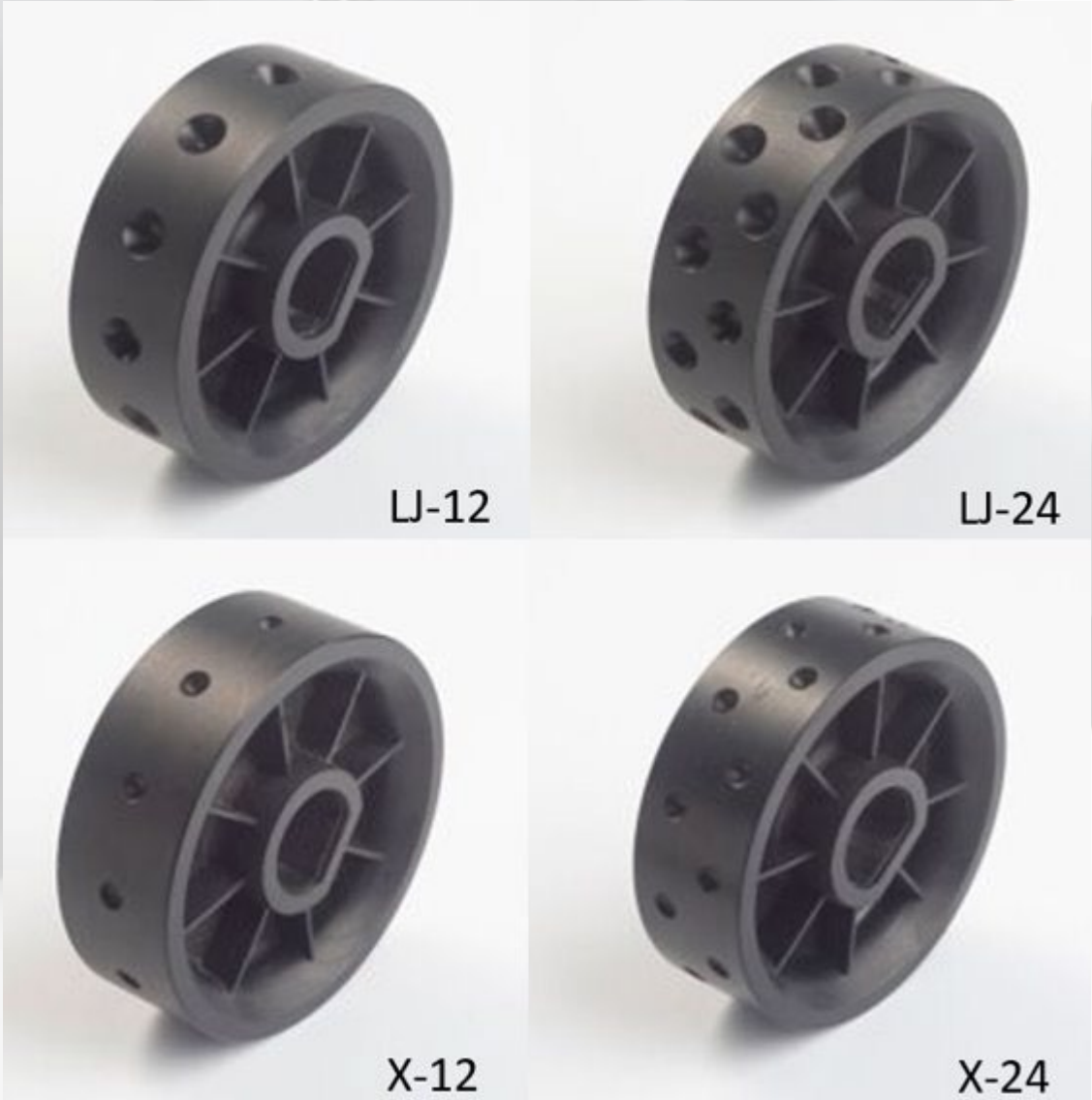
- Interchangeable
- Custom hole sizes for a wide variety of seeds
- Made from durable, static-resistant plastic
- Over 60 roller options available
- Holes come in different shapes:
  - Bowl-Shape
  - V-Groove
  - Cross
  - Other Shapes



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Seed Roller Names

- **Letters = Hole Size & Shape**
  - All rollers with the same letter have the same size holes (e.g., LJ-12, LJ-24)
  - Seed must be paired with correct hole size
- **Numbers = Number of Holes in Roller**
  - All rollers with the same number have the same number of holes (e.g.: LJ-12, X-12)
  - Correlates to in-row spacing range



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Roller Selection: Seed Shape

- Round seeds work best
- Pelleting can help with seed uniformity
- Textured seeds can be challenging, but not impossible:
  - Lift Brush
  - Remove Felt-Covered Plate
- Long or irregularly shaped seeds are not compatible with the Jang… sorry flower growers :(







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Roller Selection: Seed Size

- JP Series – Designed for small to medium-sized seed
- Use the size gauge to approximate seed size and guide roller choices
- Ideally, seeds rest neatly inside the holes
- Always test your seeds before sowing in the field!
- Seed size can change depending on growing conditions and sourcing.
- TD Series – Designed for large seeds



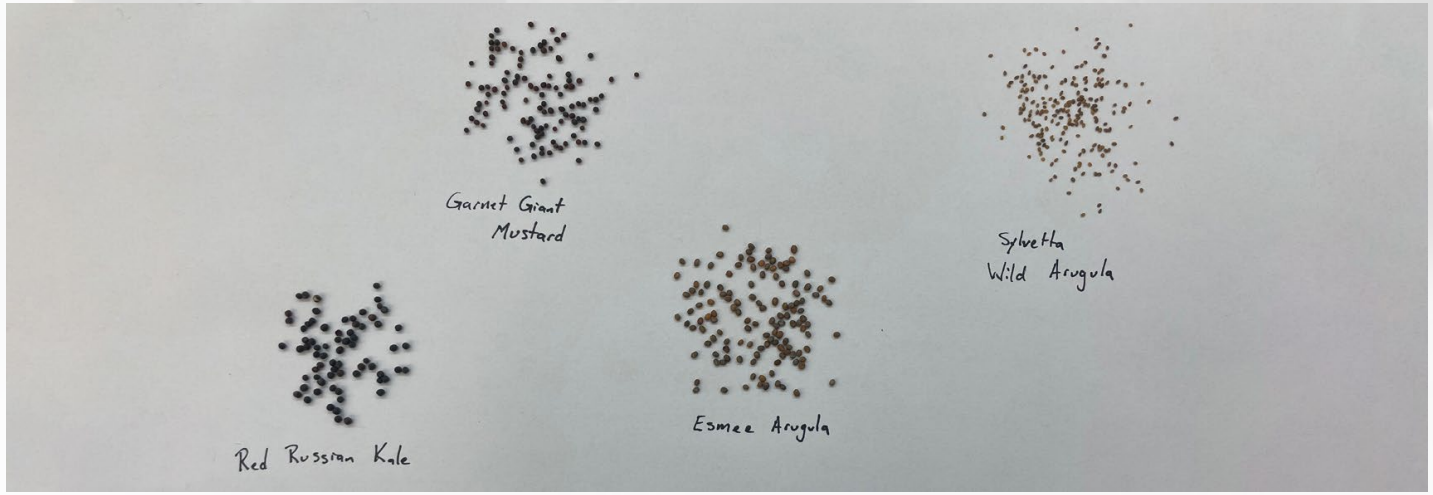




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Seed Uniformity

- Variation in seeds can lead to inconsistent seeding in the field
- Large, heavy seeds can settle to the bottom of the hopper
- Choose uniform seeds whenever possible
- Mixes can be tricky
- Check inside the hopper to be sure your seeds are sowing at the correct rate and mix it up if needed
- Sized seeds can help with uniformity, but not always necessary







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Jang Resources

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support@hensleyseeds.com

JANG JP SERIES SEEDERS ROLLER SIZES AND APPLICATIONS COMPARISON CHART



Part #	Roller Code	Hole Width*		Hole Depth	# of Holes in Roller	Spacing Range**	Typical Application ***
		inches	mm	mm			
9674	A-6	17/32	13.5	6	6	4–10"	Large Sunflowers, Common Oats, and Chickling Vetch
9075	AA-6	15/32	12	6	6	4–10"	Small Peas, large Sunflowers and Common Oats (if interseeding with peas)
7785	C-6	7/16	11	5.5	6	4–10"	Popcorn, large Sunflowers, and Barley
7140	C-12	7/16	11	5.5	12	2–5"	Popcorn, large Sunflowers, and Barley
7139	B-12	25/64	10	7.5	12	2–5"	Small Soybeans, Small Nasturtiums and Field Peas
7786	BL-12	25/64	10	7.5	12	2–5"	Used to apply granular or powdered fertilizer with Fertilizer Assembly
7787	G-6	23/64	9	4.5	6	4–10"	Pelleted Fennel, pelleted Parsnip, medium Sunflowers, Sweet Peas (flower), Buckwheat, Cowpeas, and Field Peas
7031	G-12	23/64	9	4.5	12	2–5"	Pelleted Fennel, pelleted Parsnip, medium Sunflowers, Sweet Peas (flower), Buckwheat, Cowpeas, and Field Peas
7315	R-12	23/64	9	3.5	12	2–5"	Euphorbia, Medium Sunflowers, Six-Row Barley, Hulless Oats, and Winter Wheat
7316	R-24	23/64	9	3.5	24	0.5–2.5"	Medium Sunflowers, Six-Row Barley, Hulless Oats, and Winter Wheat
7790	Q-6	5/16	8	3	6	4–10"	Small Melons, medium Sunflowers, and Lovage
7317	Q-12	5/16	8	3	12	2–5"	Small Melons, medium Sunflowers, and Lovage
6929	L V-12	5/16	8	5	12	2–5"	The best choice for Swiss Chard and large-seeded beets.
6930	L V-24	5/16	8	5	24	0.5–2.5"	The best choice for Swiss Chard and large-seeded beets.
7144	L J-6	19/64	7.5	3.7	6	4–10"	Small-seeded Beets, Okra, Spinach (seeding heavy), Cilantro, small Sunflowers, Hairy Vetch, and #13 pelleted seed (Carrots, Lettuce, Onion, Swiss Chard, Basil)
9672	L J-12	19/64	7.5	3.7	12	2–5"	Small-seeded Beets, Okra, Spinach (seeding heavy), Cilantro, small Sunflowers, Hairy Vetch, and #13 pelleted seed (Carrots, Lettuce, Onion, Swiss Chard, Basil)
7147	L J-24	19/64	7.5	3.7	24	0.5–2.5"	Small-seeded Beets, Okra, Baby Leaf Spinach (seeding heavy), Cilantro, small Sunflowers, Hairy Vetch, and #13 pelleted seed (Carrots, Lettuce, Onion, Swiss Chard, Basil)
7788	L-12	9/32	7	2.5	12	2–5"	Spinach, Cumin, Agrostemma, Centaurea, Ryegrass, Spring Wheat, and Sudangrass
7809	L-24	9/32	7	2.5	24	0.5–2.5"	Baby Leaf Spinach, Ryegrass, Spring Wheat, and Sudangrass.
7789	MJ-4	15/64	6	3.5	4	6–14"	Multiseed pelleted Parsley.
9682	MJ-6	15/64	6	3.5	6	4–10"	Multiseed pelleted Parsley.
9675	MJ-12	15/64	6	3.5	12	2–5"	Multiseed pelleted Parsley, and Oilseed Radish
9400	MJ-24	15/64	6	3.5	24	0.5–2.5"	Multiseed pelleted Parsley, and Oilseed Radish
9273	MM-12	15/64	6	2.5	12	2–5"	Cilantro (Monogerm), Bells of Ireland, Didiscus, and Sudangrass
9683	MM-24	15/64	6	2.5	24	0.5–2.5"	Cilantro (Monogerm), Bells of Ireland, Didiscus, and Sudangrass
7808	F-6	13/64	5	2.5	6	4–10"	Large Radish, Carrots with #12.5 pellet, and Sage
9448	F-12	13/64	5	2.5	12	2–5"	Large Radish, Carrots with #12.5 pellet, and Sage
9817	F-24	13/64	5	2.5	24	0.5–2.5"	Baby Leaf Kale, Brassica Mixes, Tokyo Bekana, large Radish, Carrots with #12.5 pellet
9525	M-6	13/64	5	2	6	4–10"	Endive, small Daikon Radish, Anise, Garlic Chives, and Leaf Fennel
9163	M-12	13/64	5	2	12	2–5"	Endive, small Daikon Radish, Anise, Garlic Chives, Leaf Fennel, and millet.
9077	X-4	5/32	4	2	4	6–14"	Brussels Sprouts, Cabbage, Cauliflower, Chicory, Collards, Kale, Leeks, Mache, Onion, small Radish, Shallots, Dill, Nigella, Phlox, Pelleted Dianthus & Larkspur
9164	X-6	5/32	4	2	6	4–10"	Brussels Sprouts, Cabbage, Cauliflower, Chicory, Collards, Kale, Leeks, Mache, Onion, small Radish, Shallots, Dill, Nigella, Phlox, Pelleted Dianthus & Larkspur
9385	X-12	5/32	4	2	12	2–5"	Brussels Sprouts, Cabbage, Cauliflower, Chicory, Collards, Kale, Leeks, Mache, Onion, small Radish, Shallots, Dill, Nigella, Phlox, Pelleted Dianthus & Larkspur, cover crop mustards, and clover.
9730	X-24	5/32	4	2	24	0.5–2.5"	Baby Leaf Brassicas, Baby Leaf Chicory, Leeks, Mache, Onion, small Radish, cover crop mustards, and clover.
7792	Y-4	9/64	3.5	1.5	4	6–14"	Broccoli, Brussels Sprouts, Cabbage, Chicory, Kale, Kohlrabi, Bunching Onion, Chives, Parsley, Ammi, Bupleurum, and Rudbeckia.
7318	Y-6	9/64	3.5	1.5	6	4–10"	Broccoli, Brussels Sprouts, Cabbage, Chicory, Kale, Kohlrabi, Bunching Onion, Chives, Parsley, Ammi, Bupleurum, and Rudbeckia.
9368	Y-12	9/64	3.5	1.5	12	2–5"	Broccoli, Brussels Sprouts, Cabbage, Chicory, Kale, Kohlrabi, Bunching Onion, Chives, Parsley, Ammi, Bupleurum, Rudbeckia, Crimson Clover, and Millet.
9056	Y-24	9/64	3.5	1.5	24	0.5–2.5"	Baby Leaf Brassicas, Arugula, Bunching Onion, Crimson Clover, and Millet.
9838	YYJ-6	1/8	3	1.7	6	4–10"	Basil and Columbine
9373	YYJ-12	1/8	3	1.7	12	2–5"	Basil.
7143	YYJ-24	1/8	3	1.7	24	0.5–2.5"	Basil.

* Round seed hole size indicated; alternate shapes are noted.

** Spacings are approximate; always test your seeding rates and adjust as necessary. In-row spacing is determined by # of holes in roller and adjustments to gearing ratios.

*** The terms 'small', 'medium', and 'large' refer to the seed size.

See more rollers on the next page.

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Jang Roller Testing Grid

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JANG ROLLER SIZING				
Roller Type	Hole Width (mm)	Hole Width (inches)	Hole Depth (mm)	Hole Shape
A	13.5	17/32	6	Bowl
AA	12	15/32	6	Bowl
C	11	7/16	5.5	Bowl
B	10	25/64	7.5	Bowl
G	9	23/64	4.5	Bowl
R	9	23/64	3.5	Bowl
LV	8	5/16	5	V-Groove
Q	8	5/16	3	Bowl
LJ	7.5	19/64	3.7	V-Groove
L	7	17/64	2.5	Bowl
MJ	6	15/64	3.5	V-Groove
MM	6	15/64	2.5	Bowl
F	5	13/64	2.5	Bowl
M	5	13/64	2	Bowl
X	4	5/32	2	Bowl
Y	3.5	9/64	1.5	Bowl
YYJ	3	1/8	1.7	V-Groove
YX	2.5	7/64	1.5	Bowl
YYX	2	5/64	1.8	Bowl

Testing Rollers: Install the roller you want to test that has a relative hole size to your seed. Add the seed to the hopper and turn the sprocket by hand to ensure the seed is coming out smooth, and that it's not skipping holes or breaking. Testing the seed in this 20-square grid will help you identify the approximate percentage of singles, doubles, skips, etc. *Note: Each square represents 5% of the seed tested.*

5%	5%	5%	5%	5%
5%	5%	5%	5%	5%
5%	5%	5%	5%	5%
5%	5%	5%	5%	5%

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Jang Resources

Jang JP Seeders · Roller Trial Results | SUNFLOWER Variety Cross-Reference Chart

Click on any **Jang Roller Part #** below, to view or purchase. (See separate spreadsheet for other flower crop varieties.)

Crop	Part #	Variety	Seed Type	Seeds per Pound	Labeled Seed Size	Seed Size, as Determined by Your Jang mm Gauge	Best Jang Roller Type	Desired In-Row Spacing	Recommended Jang Roller	Jang Roller Part #	Singulation	Trial Notes / Comments
Sunflower	1307	Sunbright	Raw	12,578	Unsized	10	C	2 – 5"	C-12	7140	No	C: 2-4 seeds/hole. 65% triples. Slight binding.
								4 – 10"	C-6	7785		
								8 – 20"	C-3	custom order*		
Sunflower	1503	Sunbright Supreme	Raw	10,980	Unsized	10.5	C	2 – 5"	C-12	7140	No	C: 1-3 seeds/hole. Mostly smooth with slight binding.
								4 – 10"	C-6	7785		
								8 – 20"	C-3	custom order*		
Sunflower	3395	SunFill™ Green	Raw	8,400	Unsized	12.5	C	2 – 5"	C-12	7140	No	C: 1-3 seeds/hole. Some binding.
								4 – 10"	C-6	7785		
								8 – 20"	C-3	custom order*		
Sunflower	3396	SunFill™ Purple	Raw	8,723	Unsized	10.5	AA	4 – 10"	AA-6	9075	No	AA: 1-3 seeds/hole. Mostly doubles and triples with slight binding; Other Roller Options- C: Similar results to AA.
								8 – 20"	AA-3	custom order*		
Sunflower	NA	Sunny	Raw	9,726	Unsized	10.5	C	2 – 5"	C-12	7140	No	C: 1-3 seeds/hole. Mostly smooth with slight
								4 – 10"	C-6	7785		

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In-Row Spacing

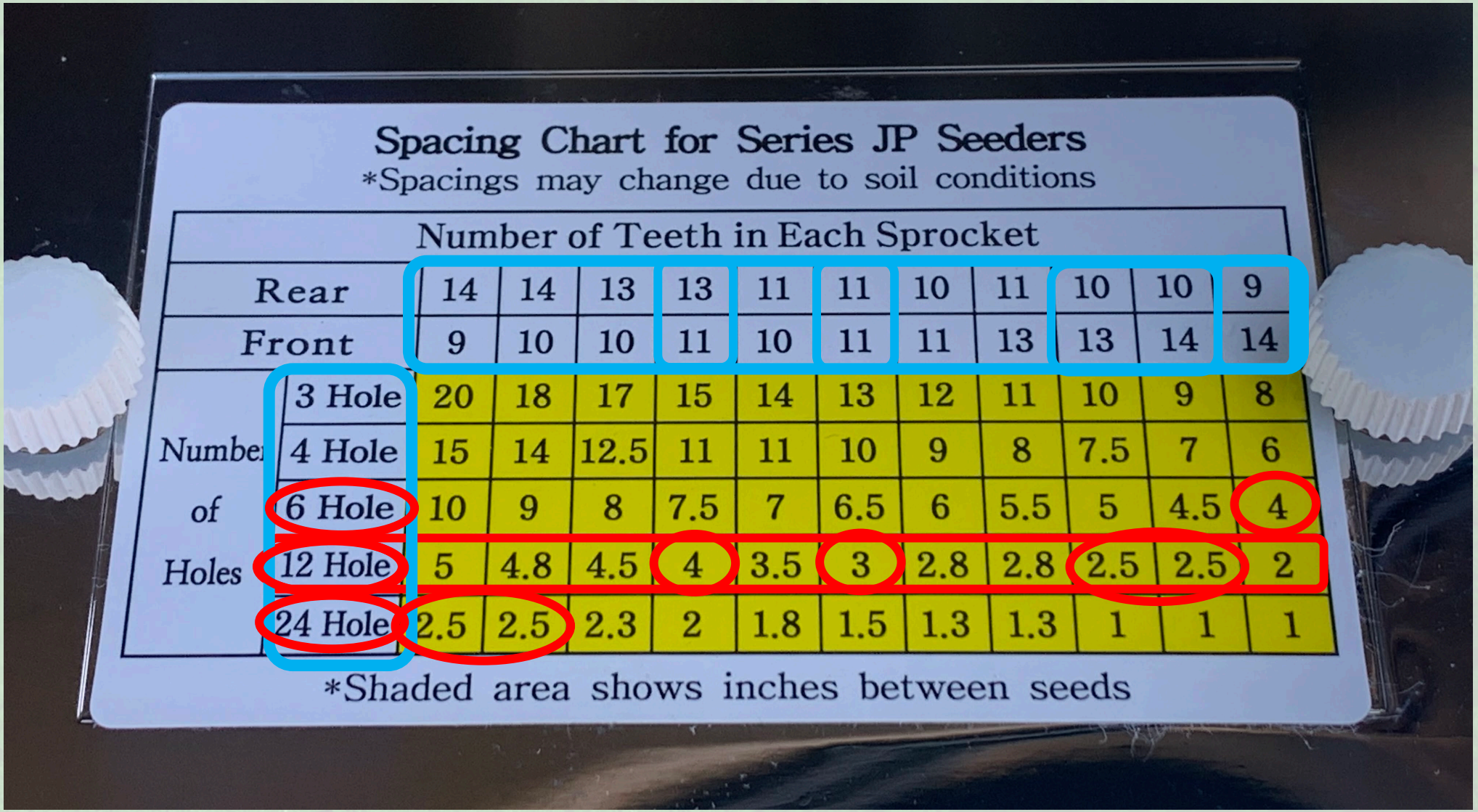
- Each JP Series Seeder includes 6 sprockets (#9, #10, #11(x2), #13, #14)
- Use two sprockets to set up your gearing
- Sprocket combinations determine the gear speed while in use
- Sprocket positioning and number of holes in the roller determine in-row spacing
- Now let's learn to read the Jang spacing chart!





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Reading the Jang Spacing Chart



Spacing Chart for Series JP Seeders

*Spacings may change due to soil conditions

		Number of Teeth in Each Sprocket										
Rear		14	14	13	13	11	11	10	11	10	10	9
Front		9	10	10	11	10	11	11	13	13	14	14
Number of Holes	3 Hole	20	18	17	15	14	13	12	11	10	9	8
	4 Hole	15	14	12.5	11	11	10	9	8	7.5	7	6
	6 Hole	10	9	8	7.5	7	6.5	6	5.5	5	4.5	4
	12 Hole	5	4.8	4.5	4	3.5	3	2.8	2.8	2.5	2.5	2
	24 Hole	2.5	2.5	2.3	2	1.8	1.5	1.3	1.3	1	1	1

*Shaded area shows inches between seeds

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Seeding Density: Field Peas

B-12 roller

G-12 roller



G-12 roller with 9 R 14 F gearing



G-12 roller with 11 R 10 F gearing



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Factors to consider:

- Seed size
- Availability of fertility & water
- Desired harvest size
- Number of cuts
- Land constraints

Cheap Frills

Seeded with Y-24 roller on left and X-24 roller on right:

- Left is sparser, growing faster, has more oversized leaves
- Right is denser, growing more slowly, and holding a smaller leaf size for a longer period of time, even with the fastest growing leaves like Mizuna

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Another Consideration: Variety Selection

- Varieties react differently from one another at different densities.
- Can’t always predict how a variety will react based on the performance of another variety



Runaway
Y-24 roller

Runaway
X-24 roller



Red Cloud
Y-24 roller

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Flashy Troutback

Top: XY-36; Bottom: XY-24

Higher Density can Mean:

- More upright
- Petioles get narrower and longer
- Stays at baby leaf stage longer
- Bolts a little faster
- Can cause a less uniform stand



Black Seeded Simpson

Left: XY-24; Right: XY-36

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Scarlet Frills sowed with Y-24 roller on top (sparser) has darker color than when sown with the X-24 roller on bottom (denser)

Sparser Density can Mean:

- Less upright
- Less disease-prone
- Grows faster
- Color is Impacted
    - Creates more understory, decreasing available sunlight and washes out some red varieties
    - More blanching can occur

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Other Things to Consider

- Seasonal Factors
- Germination Rate



Rosie
Y-24 roller



Rosie
X-24 roller



Red Kingdom
Y-24 roller



Red Kingdom
X-24 roller

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Jang Multi-Row Seeders

- Same gearing as the JP-1
- One roller is needed for each hopper
- Hoppers can be set 3" apart for densely planted crops
- Works well as a mini grain drill!
- Hopper assemblies can be set to various row spacings





Part #	Model	Frame Width	# Hoppers Included	Max Outside Row Spacing	Max # Hoppers for Frame Size
7607	JP-3	15"	3	12"	5
7898	JP-5	15"	5	12"	5
7608	JP-6	26"	6	22"	8

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Starter Kits & Roller Packs







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Jang Accessories

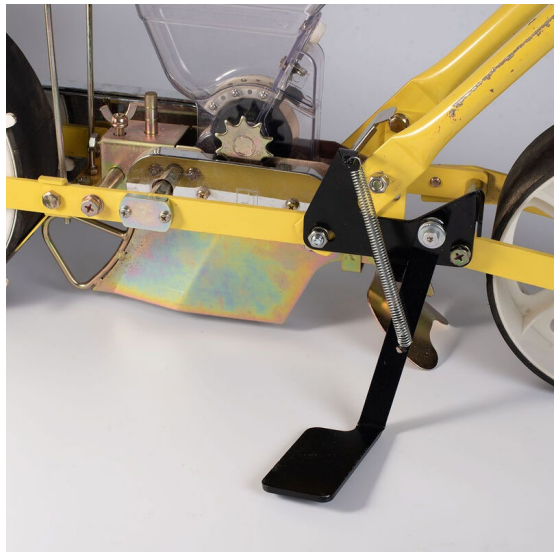
- Extra Hoppers
- Hopper Assemblies
- Shoes
- Kickstand
- Row Markers
- Fertilizer Assembly
- 3-Point Hitch Kits

















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Check out our seed roller trial results in the Grower's Library!

Full list of recommendations for:

- Vegetables
- Cut-Flowers
- Sunflowers – Over 50 varieties!
- Herbs
- Baby Leaf Crops
- Cover Crops (Farm Seed)



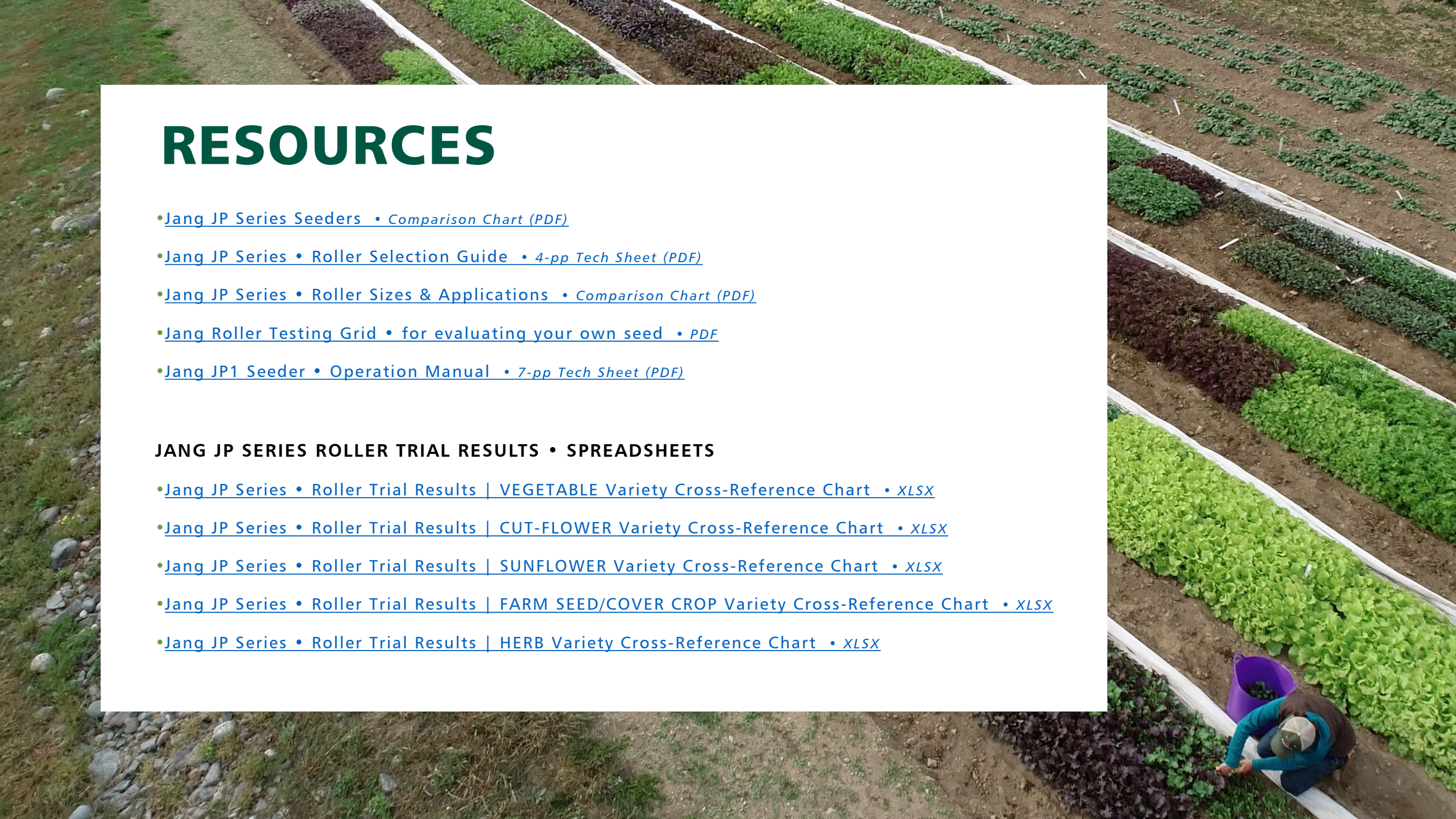
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Jang JP Seeders · Roller Trial Results | SUNFLOWER Variety Cross-Reference Chart

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								8 – 20"	C-3	custom order*		
Sunflower	1503	Sunbright Supreme	Raw	10,980	Unsized	10.5	C	2 – 5"	C-12	7140	No	C: 1-3 seeds/hole. Mostly smooth wi binding.
								4 – 10"	C-6	7785		
								8 – 20"	C-3	custom order*		
Sunflower	3395	SunFill™ Green	Raw	8,400	Unsized	12.5	C	2 – 5"	C-12	7140	No	C: 1-3 seeds/hole. Some binding.
								4 – 10"	C-6	7785		
								8 – 20"	C-3	custom order*		
Sunflower	3396	SunFill™ Purple	Raw	8,723	Unsized	10.5	AA	4 – 10"	AA-6	9075	No	AA: 1-3 seeds/hole. Mostly doubles slight binding; Other Roller Options- results to AA.
								8 – 20"	AA-3	custom order*		
Sunflower	NA	Sunny	Raw	9,726	Unsized	10.5	C	2 – 5"	C-12	7140	No	C: 1-3 seeds/hole. Mostly smooth wi
								4 – 10"	C-6	7785		

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RESOURCES

- Jang JP Series Seeders • *Comparison Chart (PDF)*
- Jang JP Series • Roller Selection Guide • *4-pp Tech Sheet (PDF)*
- Jang JP Series • Roller Sizes & Applications • *Comparison Chart (PDF)*
- Jang Roller Testing Grid • for evaluating your own seed • *PDF*
- Jang JP1 Seeder • Operation Manual • *7-pp Tech Sheet (PDF)*

JANG JP SERIES ROLLER TRIAL RESULTS • SPREADSHEETS

- Jang JP Series • Roller Trial Results | VEGETABLE Variety Cross-Reference Chart • *XLSX*
- Jang JP Series • Roller Trial Results | CUT-FLOWER Variety Cross-Reference Chart • *XLSX*
- Jang JP Series • Roller Trial Results | SUNFLOWER Variety Cross-Reference Chart • *XLSX*
- Jang JP Series • Roller Trial Results | FARM SEED/COVER CROP Variety Cross-Reference Chart • *XLSX*
- Jang JP Series • Roller Trial Results | HERB Variety Cross-Reference Chart • *XLSX*

THANK YOU

FOR JOINING US

A recording of this webinar and the presentation slides will be available on March 28, 2023.

Growing resources



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