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ABOUT THE WHEEL HOE

The wheel hoe dates back to the late 1800s. It was designed to be a low-cost tool for increasing productivity on small-scale farms where horse power (and subsequently mechanized cultivation) was limited. These market gardens and small farms typically used a single horse to plow the fields in the spring and then cultivate throughout the rest of the season with wheel hoes.

The wheel hoe is a lightweight, versatile, and maneuverable push-tool. Its ergonomic design gives the user more leverage than a traditional hand hoe and it enables one to cover ground more quickly. The wheel hoe is ideal for the small-scale market gardener, urban gardener, growers cultivating in high tunnels or greenhouses, and, of course, the avid home gardener.

The wheel hoe offers many advantages:

- No fossil-fuel use.
- No fumes when cultivating in high tunnels or greenhouses.
- Allows the user to remain upright while cultivating, resulting in less bending and stretching.
- Numerous attachments and adjustments make cultivation of various crops possible.
- Appropriate for no-till and low-till systems.
- Long-lasting with virtually no moving parts to break.



Hilling beans with the Glaser U-Bar Double Wheel Hoe.

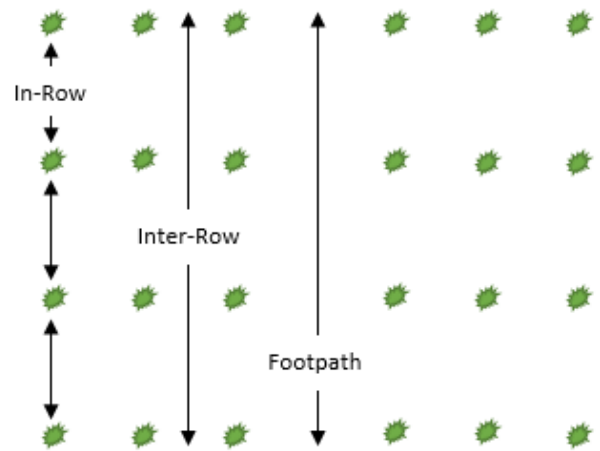
WHAT IS CULTIVATION?

Cultivation is simply the act of stirring the soil surface to eliminate both small weeds that have emerged and future weeds just under the soil surface. Eliot Coleman notes in his book *The New Organic Grower* that "Cultivation deals with weeds before they are a problem. Weeding deals with the problem after it has occurred."

TYPES OF CULTIVATION

The wheel hoe, fitted with the appropriate attachments, can be used to cultivate and weed in three major ways:

- **In-row cultivation:** cultivation between crops growing in the same row.
- **Inter-row cultivation:** cultivation between rows of crops in the same bed.
- **Footpath (pathway) cultivation:** where the goal is to both kill weeds in the footpath and reduce soil compaction.



Types of cultivation

CHOOSING YOUR WHEEL HOE

Johnny's offers three types of wheel hoes:

- **Single Wheel Hoes** are best for footpath and inter-row cultivation.
- **Double Wheel Hoes** are primarily for in-row cultivation, allowing the grower to cultivate on both sides of the crop with a single pass. Note: you must ensure that the crop spacing and height is compatible with the wheel hoe design; see below for more information.
- **Solus Electric Wheel Hoe** is used in the same way as a Single Wheel Hoe but powered by an electric motor; this added feature makes for fast, efficient cultivation.

WHEEL HOE MODELS

Terrateck Single Wheel Hoe (Part #7615)

Country of Origin: France

Uses: Inter-row and footpath cultivation

Weight: 16.5 pounds

Description: The Terrateck Single Wheel Hoe is lightweight and has a multitude of attachment and adjustment options. It includes an option to offset the arms, allowing for bed cultivation while walking in the footpath. Attachments can be changed out quickly and easily in the field without the use of additional tools.

You can also "stack" attachments, meaning you can use two attachments at once to simultaneously target weeds in multiple zones, with the use of a Secondary Tool Mount. A conversion kit allows you to convert this single wheel hoe into a double wheel hoe for in-row cultivation and light hilling. All attachments are sold separately.



Terrateck Double Wheel Hoe (Part #7620)

Country of Origin: France

Uses: In-row, inter-row, and footpath cultivation

Weight: 19.8 pounds

Description: The double wheel hoe straddles row crops for cultivation on both sides of the plants in one pass. It can also be used for in-row cultivation with the use of attachments such as Finger Weeders. Like the Terrateck Single Wheel Hoe, the Terrateck Double Wheel Hoe is lightweight and has the option to offset the arms, allowing for bed cultivation while walking in the footpath. There are more accessories available for this model than for the single wheel model, and all allow for quick attachment in the field. As with the single wheel hoe, you can combine two attachments to simultaneously target weeds in multiple zones. It is appropriate for use on crops up to 8 inches tall and with a minimum spacing of 7 ¼ inches. All attachments are sold separately.



Glaser Wheel Hoe (Part # [9090](#) / [9378](#))

Country of Origin: Switzerland (chassis) and U.S.A. (ashwood handles)

Uses: In-row, inter-row and footpath cultivation

Weight: 15.2 pounds with the 8" hoe attachment; 16.4 pounds with the 12" hoe attachment

Description: Designed after the Planet Jr. Wheel Hoe of the late 1800s, the Glaser Single Wheel Hoe is lightweight, strong, and highly maneuverable. It has the option to offset the arms, allowing for bed cultivation while walking in the footpath. Several attachments are available. In-row cultivation can be accomplished by hilling soil onto one side of row crops at a time with the hiller attachment. With a conversion kit, it is possible to convert it to a double wheel hoe or to a precision seeder. Comes with either a 12" (Part #9378) or an 8" (Part #9090) center-mounted stirrup hoe.



Glaser Double Wheel Hoe (Part #[9091](#))

Country of Origin: Switzerland (chassis) and U.S.A. (ashwood handles)

Uses: In-row, inter-row, and footpath cultivation

Weight: 18.6 pounds without attachments

Description: The Glaser Single Wheel Hoe converts to a double wheel hoe with the conversion kit (part # 9091). Using the double wheel hoe, you can straddle row crops for cultivation on both sides of the plants in one pass. We recommend this wheel hoe for crops up to 4 ½" wide and 4 ¾" tall. The adjustable distance between hoes is 2–5 ¾".



Glaser U-Bar Double Wheel Hoe (Part #[7604](#))

Country of Origin: Switzerland (chassis) and U.S.A. (ashwood handles)

Uses: In-row and inter-row cultivation

Weight: 22.9 pounds

Description: Like the Glaser Single Wheel Hoe, the double wheel hoe has the option to offset the arms, allowing for bed cultivation while walking in the footpath. It has a high clearance when compared to other double wheel hoe models, allowing you to work in taller and wider crops than is possible with the Terrateck double wheel hoe. The U-Bar Double Wheel Hoe is appropriate for use on crops up to 16 inches tall, with a minimum row spacing of 13 ½ inches. Its leaf-lifters safely guide crop foliage through its chassis. Compared to the Terrateck Double Wheel Hoe, it has fewer attachment options. All attachments are sold separately.



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Solus V2 Electric Wheel Hoe (Part #7348)

Country of Origin: U.S.A.

Uses: In-row, inter-row, and footpath cultivation

Weight: 45 pounds

Description: This motor-driven single wheel hoe makes for fast and easy work but has a higher price tag than traditional wheel hoes. Unlike with a traditional wheel hoe, which requires forward-and-back movement, with the Solus, you will only occasionally need to back up to clear larger weeds. It is compatible with some Glaser attachments with the use of an adapter kit. We recommend purchasing a spare battery to ensure you always have power when you need it.



CHOOSING ATTACHMENTS

The most common attachments for cultivation are the standard cultivating blades including the oscillating or stirrup hoe, as well as sweeps and discs for hilling. However, Johnny's offers additional attachments designed for different crops and applications for all our wheel hoe models.

- **Collinear Hoe:** The Collinear Hoe blade is designed for shallow cultivation; Eliot Coleman refers to it as a "soil shaver" due to its smooth motion just below the soil surface. This attachment has a blade on one side to cut and lift thread-stage weeds to the soil surface. It is a good choice for inter-row and footpath cultivation and is available for our Terrateck Single Wheel Hoe.



- **Stirrup Hoe:** This is a classic cultivation tool that is also known as an "oscillating hoe." Features a sharp edge on both sides of the blade for efficiently cutting weeds on forward and reverse strokes. Strong construction allows the user to cultivate both thread-stage and more mature weeds. Ideal for inter-row and footpath cultivation. Available for Glaser Single and Double Wheel Hoes, as well as the Solus V2 Electric Wheel Hoe.



- **Disc Harrow Gangs and Bio-Discs:** These miniature disc harrows are excellent for in-row weed management and hilling young seedlings like onions, beans, corn, and carrots. Disc Harrow Gangs (near right) are available for the Glaser U-Bar Wheel Hoe and Bio-Discs (far right) are available for the Terrateck Double Wheel Hoe.



- **Hiller:** Also known as a "ridger" or a "furrower." This V-shaped plow is used to create deep furrows for planting or ridges for hilling potatoes, leeks, onions, beans, and peas. Available for the Glaser Single Wheel Hoe. It can also be mounted to the Solus V2 Electric Wheel Hoe with the Glaser Adapter Plate.



- **Goose Foot Hoes:** The Goose Foot Arrow Hoe (near right) and Goose Foot Chevron Hoe (far right) are designed to cultivate close to mature crops that have developed a canopy—closer than is possible when using a stirrup hoe. Available for the Glaser Single Wheel Hoe. It can also be mounted to the Solus V2 Electric Wheel Hoe with the Glaser Adapter Plate.



- **Spring Tooth Harrows:** Available in fine or heavy grade wire. This attachment has flexible tines that uproot thread-stage weeds by scratching the soil surface. Best used on loose, lightly crusted soils without long stem or straw residues. Spring Tine Harrows can be used simultaneously with other cultivation attachments for more complete weed management. Available for Terrateck Wheel Hoes only.



- **Sweeps and Preci-Discs:** Blades or “sweeps” are used for precision cultivation on either side of young crops. Most commonly used on crops with an upright habit, the Beet Knife Sweeps (near right) can be angled inward to cultivate around wider crops like lettuce. The Terrateck Preci-Discs (far right) combine the angled sweeps with discs, which reduces the risk of soil scattering in the row, especially in crusted soils.



- **Finger Weeders:** Targets thread-stage weeds in-row by fracturing the soil from the root zone upward, freeing roots and germinating seeds from soil moisture. Flexible fingers work safely in row crops with adequate stem strength including carrots, corn, brassicas, and lettuce. Use with other attachments for better efficiency. Only available for the Terrateck Double Wheel Hoe.



- **Three-Tine cultivator:** This Eliot Coleman design features curved tines with flattened tips to effectively break up crusted and compacted soils quickly. It is also very helpful for weed management, as well as for incorporating soil amendments such as compost and fertilizer. Available for the Glaser Single Wheel Hoe. It can also be mounted to the Solus V2 Electric Wheel Hoe with the #7402 Glaser Adapter Plate.



TIPS FROM JOHNNY'S

- **For best results, keep your attachment blades sharpened.** We carry various sharpeners at www.johnnyseeds.com.
- **Walk at a steady pace while cultivating.** Operating your wheel hoe using a push-pull, oscillating motion with your arms can help to better break up crusted and heavier soils.

ADDITIONAL FEATURES TO CONSIDER

- Some wheel hoes offer the ability to combine or “stack” attachments to cultivate a broad area with a single pass. For example, you can see both Finger Weeders and Preci-Discs mounted on the Terrateck Double Wheel Hoe in the photo to the right.
- Most models have the option to convert to off-set arms, allowing the user to cultivate crop beds while operating from the footpaths. By staying in the footpath, you can avoid stepping on and re-rooting newly cultivated weeds and you also avoid compacting the soil in the bed.
- Some models like the Terrateck models offer quick Y-bolt style clamps for mounting attachments; this means it is easy to swap them out in the field without needing additional tools.
- Some models offer attachments for creating furrows for planting potatoes or garlic, or for burying the edges of plastic mulch or row cover. Some can even be used as precision seeders. See the chart of attachments, below, for more details.



NEED MORE HELP?

We hope the information in this guide has helped you choose the best wheel hoe for your needs. If you need more information after reviewing this information, remember, we are only a phone call away!

See next page for a chart showing wheel hoe attachments for our wheel hoe models.



Wheel Hoe Attachments at a Glance

Terrateck Single Wheel Hoe	Terrateck Double Wheel Hoe	Glaser Wheel Hoe	Glaser U-Bar Double Wheel Hoe	Solus V2 Electric Wheel Hoe
Part # 7615	Part # 7620	Part # 9090/9378	Part # 7604	Part # 7348
Attachments & Accessories	Attachments & Accessories	Attachments & Accessories	Attachments & Accessories	Attachments & Accessories
7501 Single Hoe Blade- 12"	7501 Single Hoe Blade- 12"	*Comes with one 8" or 12" Center Mount Hoe	7485 Beet Knife Sweeps	7395 V2 Toolbar Kit
7502 Single Hoe Blade- 20"	7502 Single Hoe Blade- 20"	9087 Center Mount Oscillating Hoe- 5"	7486 Hilling Plow Blades	7397 6" Stirrup Cultivating Hoop Attachment
7594 Extra Wide Tool Bar	7594 Extra Wide Tool Bar	9096 Center Mount Oscillating Hoe- 8"	7487 Disc Harrow Gangs	7398 12" Stirrup Cultivating Hoop Attachment
7595 Tool Support Clamps (required to install attachments)	7595 Tool Support Clamps (required to install attachments)	9161 Center Mount Oscillating Hoe- 12"		7402 Glaser Adapter Plate
7600 Secondary Tool Mount (for using two attachments at once)	7600 Secondary Tool Mount (for using two attachments at once)	9024 Goose Foot Arrow Hoe- 8"		
7598 Spring Tooth Harrows (Fine)	7598 Spring Tooth Harrows (Fine)	9073 3-Tine Cultivator		
7599 Spring Tooth Harrows (Heavy)	7599 Spring Tooth Harrows (Heavy)	9072 Hiller		
	7500 Bio-Discs	9091 Double-wheel Conversion Kit		
	7596 Lelievre Sweeps	9085 Right Offset Oscillating Hoe- 5"		
	7597 Preci-Discs	9086 Left Offset Oscillating Hoe- 5"		
	7055 Finger Weeders	9095 Right Offset Oscillating Hoe- 8"		
		9094 Left Offset Oscillating Hoe- 8"		
		9434 Seeder Conversion Kit		

Tell us what you think!

We would love your feedback about this information! Please take 1 minute to [answer 3 short questions](#) to share your thoughts!

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