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ABOUT THE WHEEL HOE

The wheel hoe first came into widespread use in the U.S. in the late 1800s with the manufacture of the Planet Jr., which provided a low-cost tool for increasing productivity on small-scale farms where horse power — and subsequently, motorized cultivation — was limited. At the turn of the-century and into the first few decades of the 1900s, many market gardeners and other smallholders typically used a single horse to plow the fields in the spring, then cultivated throughout the rest of the growing cycle with wheel hoes.

Down to this day, the wheel hoe is an ideal cultivation tool for the small-scale market gardener, urban gardener, high tunnel or greenhouse grower, homesteader, or avid backyard gardener. As a lightweight, versatile, and maneuverable push-tool, the wheel hoe's ergonomic design provides the user greater leverage than a traditional hand hoe, enabling one to cover ground more quickly.

Among its many advantages, the wheel hoe offers:

- Human-powered use.
- Fossil fuel-free, fume-free cultivation in the field or protected-culture setting.
- Ergonomic design, allowing the operator to remain upright while cultivating.
- Versatility, accommodating an array of attachments and adjustments that make cultivation of various crops and row configurations possible.
- Suitability for no-till and low-till systems.
- Durability and longevity, with few breakable moving parts.



Introducing the “stackable” Terrateck Double Wheel Hoe at Johnny's 2019 Field Day, Four Season Farm, Harborside, Maine.

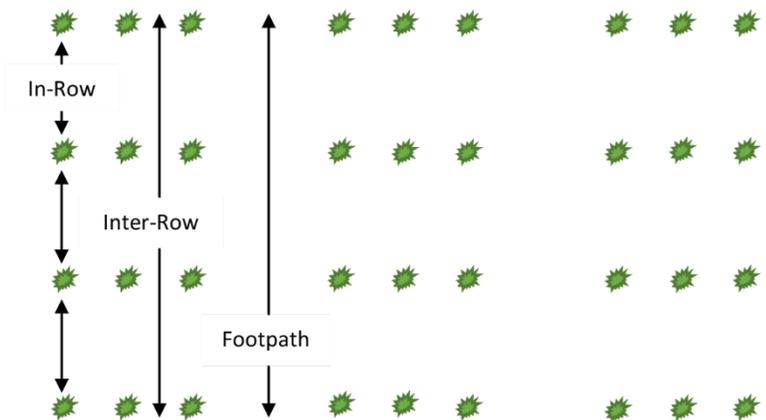
WHAT IS CULTIVATION?

Cultivation is simply the act of stirring the uppermost layer of the soil to eliminate both small weeds that have emerged and preemergent weeds just below the soil surface. As Eliot Coleman writes in *The New Organic Grower*, “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 key 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 two 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's spacing and height are compatible with the double wheel hoe design, as further detailed below.

JOHNNY'S WHEEL HOE MODELS

Terrateck Single Wheel Hoe [#7615](#)

Country of Origin: France

Uses: Inter-row and footpath cultivation

Weight: 16.5 lb (7.5 kg)

Description: The Terrateck Single Wheel Hoe is lightweight and versatile, with a multiplicity of attachment and adjustment options. It offers the option of offsetting 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 offered separately.



Terrateck Double Wheel Hoe [#7620](#)

Country of Origin: France

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

Weight: 19.8 lb (9 kg)

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 can be configured with offset 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" in height, with a minimum spacing of 7¼". All attachments are offered separately.



Glaser Wheel Hoe #9090 / #9378

Country of Origin: Switzerland (chassis) and USA (ashwood handles)

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

Weight: 15.2 lb (6.9 kg) with the 8" oscillating hoe attachment;
16.4 lb (7.4 kg) with the 12" oscillating hoe attachment

Description: Designed after the original 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. Comes with either a 12" (#9378) or an 8" (#9090) center-mounted oscillating stirrup hoe. (An oscillating blade swings back and forth across its central attachment plane, rather than being fixed.)



Glaser Double Wheel Hoe Conversion Kit #9091

Country of Origin: Switzerland (chassis) and USA (ashwood handles)

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

Weight: 18.6 lb (8.4 kg) without attachments

Description: The Glaser Single Wheel Hoe converts to a double wheel hoe with this conversion kit. 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 model for cultivating crops up to 4½" wide and 4¾" in height. The adjustable distance between the hoe blades is 2–5¾".



CHOOSING YOUR WHEEL HOE ATTACHMENTS

The most common attachments for cultivation are the standard cultivating blades such as the oscillating stirrup hoe blades, as well as sweeps and discs for hilling. Johnny's offers these as well as a range of additional attachments designed for different crops and applications for all our wheel hoe models. See table below for the options available for each model.

- **Collinear Hoe Blades:** Designed for shallow cultivation, Eliot Coleman refers to the collinear hoe as a "soil shaver" due to its precise, smooth action just beneath the soil surface. The sharp inner edge of the blade cleanly cuts and lifts thread-stage weeds to the soil surface. This attachment is effective for inter-row and footpath cultivation. Available for the Terrateck Single Wheel Hoe.



- **Stirrup Hoe:** This classic cultivation tool is also known as an oscillating hoe, or “hula-hoe.”¹ Sharpened along both the inner and outer edges of its blade, the stirrup hoe efficiently cuts weeds on forward and reverse strokes. Sturdy 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.



- **Bio-Discs:** These miniature disc harrows are excellent for in-row weed management and hilling young seedlings like onions, beets, corn, and carrots. Available as an accessory for the Terrateck Double Wheel Hoe, you can remove the inner coulters with a 5mm Allen wrench for a more aggressive hilling.



- **Hilling Blades:** Also known as a ridger or a furrower, this accessory is a V-shaped plow used to create deep furrows for planting or ridges for hilling potatoes, leeks, onions, beans, and peas. Available for the Glaser Single Wheel Hoe and the Terrateck Wheel Hoes.



- **Goose Foot Hoes:** The Goose Foot Arrow Hoe (near right) and Goose Foot Chevron Hoe (far right) are designed to closely cultivate mature crops that have developed a canopy — closer than what is possible when using a stirrup hoe. Available for the Glaser Single Wheel Hoe.



¹ Damrosch, B. 2017 The wheel hoe comes full circle. *Washington Post*. URL: https://www.washingtonpost.com/lifestyle/home/the-wheel-hoe-comes-full-circle/2017/05/30/05959938-3f34-11e7-9869-bac8b446820a_story.html (accessed 07.27.2022).

- **Spring Tine Harrows:** This attachment features flexible tines that uproot thread-stage weeds by scratching the soil surface. Most effective 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 in fine- or heavy-grade wire, for Terrateck Wheel Hoes only.



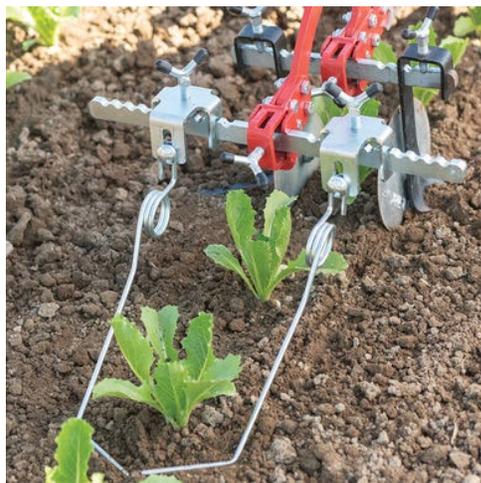
- **L-Blades and Preci-Discs:** L-Blades and Preci-Discs are used for precision cultivation on either side of young crops. Attached to a Terrateck Hoe, L-Blades are most commonly used on crops with an upright habit, and can be adjusted to target weeds right up to the crop base, and the Preci-Discs (shown right) combine 45°-angled blades with coulters — vertical cutting blades — to keep the wheel hoe moving in a straight direction and reduce the disruption of soil crusts that can shift and harm young seedlings.



- **Finger Weeders:** Attached to a tool bar in pairs that are equally opposed and angled, finger weeders are one of the few tools that target in-row cultivation of thread-stage weeds by fracturing the soil from the root zone upward. The effect is to disrupt weed roots and germinating weed seeds from being in contact with soil moisture. Flexible fingers work safely around row crops with adequate stem strength, such as carrots, corn, brassicas, and lettuce. Finger weeders can be stacked with other attachments for added efficacy. Two models are available, one designed for medium-to-heavy soils and another for soft or sandy soil, for the Terrateck Double Wheel Hoe only.



- **Torsion Weeders:** Much like Finger Weeders, Torsion Weeders are used for targeting in-row weeds. Fitted with stiff wires that can be set to cultivate right up to the crop stems, Torsion Weeders are especially helpful when cultivating under crops with a very horizontal growth habit such as head lettuce.



- **Tine Cultivators:** 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 and Terrateck Wheel Hoes.



WHEEL HOE TIPS FROM JOHNNY'S

- **For best results, keep your attachment blades sharpened.** By maintaining blade sharpness, your hoe can function at maximal efficiency, which translates to a time-saving for you. We carry a selection of [sharpeners and hones](#) for this purpose.
- **Walk at a steady pace while cultivating.** Operating your wheel hoe using a push-pull, oscillating motion with your body can help to better break up crusted and heavier soils.
- **Find your groove.** Where you position the handles of your wheel hoe as you use it depends upon your center of gravity, upper versus lower body strength, and personal preference. Experiment a little with the hoe and how the work feels when using different attachments to determine which angles and forces feel most ergonomically sound for your body.

ADDITIONAL FEATURES TO CONSIDER

- **Stacking Attachments:** Some wheel hoe models are designed to accommodate combined or “stacked” attachments, offering the ability to cultivate a broad area with a single pass. For example, both Finger Weeders and Preci-Discs are mounted on the Terrateck Double Wheel Hoe in the photo at right.
- **Off-Sets:** Most of the models we offer provide 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 as well as compacting the soil in the bed. Note that the Terrateck [Offset Handle Assembly](#) (#7091) is incompatible with use of the Finger Weeders.
- **Hardware:** Some wheel hoes such as the Terrateck models offer quick Y-bolt style clamps for mounting attachments, making it easy to swap them out in the field by hand without additional tools.
- **Mounting Accessories:** Terrateck wheel hoes models can be fitted with various mounting accessories for attaching different types of cultivation tools. Horizontal toolbars are available in 3 widths: 16", 24", and 31.4". Shown at right is a hoe fitted with the Secondary Tool Mount, for simultaneous use of two attachments.



Refer to the table below for a list of our wheel hoe attachment options for each model and their corresponding part numbers.

WHEEL HOE ATTACHMENTS & COMPATIBILITIES

TERRATECK			GLASER		
Single Wheel Hoe	Double Wheel Hoe	Mounting Accessories	Single Wheel Hoe with 8" Blade	Single Wheel Hoe with 12" Blade	Double Wheel Hoe Conversion Kit
#7615	#7620		#9090	#9378	#9091
#7598 Spring Tine Harrows – Fine Tooth #7599 Spring Tine Harrows – Heavy Tooth #6937 3-Tine Cultivator #6938 5-Tine Cultivator #6979 Ridger – 4" #6997 Ridger – 7.8"		#7868 Tool Bar – 16" #7594 Tool Bar – 24" #6945 Tool Bar – 31.4" #7600 Secondary Tool Mount	#9087 Center Mount Oscillating Hoe – 5" #9096 Center Mount Oscillating Hoe – 8" #9161 Center Mount Oscillating Hoe – 12" #9024 Goose Foot Arrow Hoe – 8" #9073 3-Tine Cultivator #9072 Hiller Ridger		
#7501 Collinear Hoe Blade – 12" #7502 Collinear Hoe Blade – 20" #6939 Dual-Beveled Collinear Hoe Blade – 10" #6940 Dual-Beveled Collinear Hoe Blade – 18" #6941 Dual-Beveled Collinear Hoe Blade – 28" #7971 Left-Pulling Mono-Ridger #6999 Right-Pulling Mono-Ridger	#7500 Bio-Discs #7596 L-Blades #7597 Preci-Discs #7055 Finger Weeder Full Kit – Standard Soil #7682 Finger Weeder Full Kit – Sandy Soil #7970 Torsion Weeders			#9085 Right Offset Oscillating Hoe – 5" #9086 Left Offset Oscillating Hoe – 5" #9095 Right Offset Oscillating Hoe – 8" #9094 Left Offset Oscillating Hoe – 8"	

Need more help?

We hope this guide helps you determine the best options for your needs from our Glaser and Terrateck Wheel Hoes. If you need more information, please give us a call or [send us an email](#).

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!