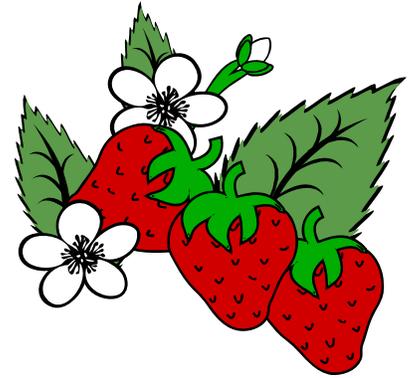


# GOT WEEDS? NEW CULTIVATION TOOLS FOR WEED MANAGEMENT IN STRAWBERRY FIELDS



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(For more information visit [www.fruit.cornell.edu](http://www.fruit.cornell.edu))

**M**anaging weeds is one of your greatest challenges as a strawberry grower. Few herbicides are labeled for use in strawberry fields and effective hand weeding always takes more time and labor than you have or wish to afford it. Faced with this challenge growers and researchers continually search for innovative weed management tactics. Dr. Marvin Pritts' research team at Cornell found that early-season weed suppression is critical in the establishment year of matted rows. Excellent weed control from May into July promotes plant vigor and in subsequent years, helps maximize productivity and fruit quality. Dr. Pritts and his collaborators also found that new cultivation implements, in particular the flex tine harrow, the finger weeder and the brush hoe, are as effective as the traditional rototiller/multivator in weed suppression during the critical early-season period. Each implement has its advantage and disadvantage (see table below) but these new cultivation tools give strawberry growers additional proven options to meet their weed management challenges. Researchers at Cornell University tested the designs from the following companies:

## Tined Weeders

- Einböck from HWE Agricultural Technology Ltd Embrun, ON (613) 443-3386
- Lely from DFK Equipment Sales Inc Saint Marys, ON (800) 881-3794
- Rabewerk from Machineries Agricoles St-CéSaire Saint-CéSaire, QC (450) 469-4081

## Finger Weeder

- Buddingh Weeder Co Caledonia, MI (616) 698-8613

## Reigi Weeder

- Univerco Inc. ([www.univerco.net](http://www.univerco.net)) Napierville, QC (800) 663-8423

## Brush Hoe

- Bärtschi-FOBRO Inc. ([www.fobro.com](http://www.fobro.com)) Grand Haven, MI (616) 847-0300

## Torsion Weeder

- Bezzerides Brothers Inc ([www.bezzerides.com](http://www.bezzerides.com)) Orosi, CA (559) 528-3011

Additional information about cultivation tools (including manufactures & distributors) can be found in: Steel in the Field: A Farmer's Guide to Weed Management Tools, available from SARE [www.sare.org/steel/index.htm](http://www.sare.org/steel/index.htm) (802) 656-0484.

	<i>Disadvantages</i>	<i>Advantages</i>
 <p><b>Multivator:</b> Rotating blades slice weeds sub soil between crop rows</p>	<ul style="list-style-type: none"> <li>• Must be supplemented with weeding within row</li> <li>• No weed control in row</li> <li>• “Hard” on soil structure</li> <li>• Promotes weed seed germination</li> </ul>	<ul style="list-style-type: none"> <li>• Provides season-long control</li> <li>• Effective on larger weeds</li> <li>• Little crop damage</li> <li>• Moderately quick task</li> </ul>
 <p><b>Brush Hoe:</b> Brushes, shreds, rips and smothers weeds between crop rows</p>	<ul style="list-style-type: none"> <li>• Must be supplemented with weeding within row</li> <li>• Requires a relatively large tractor</li> <li>• Requires two operators</li> <li>• Rows must be straight &amp; precisely spaced</li> </ul>	<ul style="list-style-type: none"> <li>• Provides early to mid-season control</li> <li>• Useful in moist soil</li> <li>• Effective on larger weeds</li> <li>• “Kind” to soil structure</li> <li>• Does not bring weed seeds to soil surface</li> </ul>
 <p><b>Tined Weeder:</b> Wire tines scratch soil surface, uprooting tiny weed seedlings within &amp; between crop rows</p>	<ul style="list-style-type: none"> <li>• Time-consuming set up</li> <li>• Soil must be dry</li> <li>• Not effective on larger weeds</li> <li>• Promotes weed seed germination</li> </ul>	<ul style="list-style-type: none"> <li>• Can clean weeds between and within rows</li> <li>• Adaptable tine layout</li> <li>• Loosens crusted soils</li> <li>• “Kind” to soil structure</li> <li>• Relatively fast task</li> </ul>
 <p><b>Finger Weeder:</b> Rubber “fingers” mounted on steel cone wheels pull weeds out within crop row</p>	<ul style="list-style-type: none"> <li>• Must be supplemented with between-row cultivation</li> <li>• Field must be level</li> <li>• Soil must be loose</li> <li>• Not effective on larger weeds</li> <li>• Relatively slow</li> </ul>	<ul style="list-style-type: none"> <li>• Ground-driven so can be used on smaller tractors</li> </ul>
 <p><b>Reigi Weeder:</b> Rigid metal tines mount-ed vertically on spinning steel disks uproot weeds within crop row.</p>	<ul style="list-style-type: none"> <li>• Must be supplemented with between-row cultivation</li> <li>• Requires full attention of two operators</li> <li>• Soil must be relatively dry</li> <li>• Rows must be straight</li> <li>• May smother or uproot crop</li> <li>• Relatively slow process</li> <li>• Promotes weed seed germination</li> </ul>	<ul style="list-style-type: none"> <li>• Provides early to mid-season control</li> <li>• “Kind” to soil structure</li> <li>• Can be used on smaller tractors</li> <li>• Inexpensive implement</li> <li>• Easy to repair</li> <li>• Can also be used to remove winter straw mulch in spring</li> </ul>