Problem:
Thick woody plants are difficult to cut with small propagation shears. Repetitive gripping can contribute to chronic problems in the hand, wrist, and arm.

- Nursery workers use hand shears to make cuttings from plants for future propagation. Some plants, such as juniper, have thick and woody stems.
- Highly repetitive hand work can contribute to chronic injury of the hand, wrist, and arm (such as tendinitis or carpal tunnel syndrome). When workers have to squeeze forcefully, the risk of injury is increased even more.
- Repetition leads to fatigue of small muscles and to increased wear on tools.
- Besides the injury factor, woody plants can be prickly and difficult to handle.

One Solution:
Use a bench-mounted power cutter to relieve repetitive gripping and speed the work.

- Reduces need for repetitive and forceful gripping.
- Reduces need for handling of cuttings.
- Can improve productivity.
### Power Cutter

<table>
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<th>How Does the Cutter Work?</th>
<th>Where Can I Get a Power Cutter?</th>
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| The cutter uses air pressure to power a pneumatic cylinder that closes and opens a set of mounted hand shears, which have been modified for this purpose. Each cycle is activated by a light touch of the plant material against the trigger lever of an air micro-switch. | Contact: MG Enterprises  
Rocky Canyon Road  
Creston, CA 93432  
Prices will likely run about $1,000 for a smaller cutter and $1,250 for a larger one. |

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<thead>
<tr>
<th>How Does the Cutter Affect Cutting Quality?</th>
<th>Contact Information:</th>
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| The cutting quality is unchanged, because the blades are identical to those of current hand shears. Workers new to the powered cutter will need one to two hours of practice before they can use it as well as the hand shears. | This Tip Sheet was produced by the University of California Agricultural Ergonomics Research Center under a grant from the National Institute for Occupational Safety and Health.  
UC Ag Ergonomics Research Center, Bio & Ag Engineering, UC Davis, One Shields Avenue, Davis, CA 95616-5294.  

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<th>How Does the Cutter Affect Productivity?</th>
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<td>Reducing fatigue may increase productivity over the course of the day. Also, workers with physical limitations may be able to use the machine much more easily than the hand shears, and thus be more productive.</td>
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