

ARUNDO DONAX TARPING PROTOCOL

Courtesy of Center For Ecological Restoration And Stewardship
Circuit Rider Productions, Inc. (2007)

For our project partners that prefer an herbicide-free removal, we offer a very effective control technique. Tarping cut stalks starves the growing *Arundo donax* of light over the active growing season, inhibiting photosynthesis and severely depleting the reserves in the rootstock. After initial biomass removal, the tarp installation process begins.

RECUT the stalks to a standard height as close to the ground as possible. Make sure that the cuts are level, not angled. Stalks cut at an angle could cause serious injury if a fall occurs, and may poke holes in the tarp. If the site can be cleaned up to make the tarp installation easier, do so—remove brush, litter, or any object that may interfere with the tarp laying flat.

MEASURE the longest width by the longest length of the clump and add about 10% or 4 feet, whichever is smaller.

CUT the tarp to this measurement. Use tarp pieces as large as possible to minimize any “quilting effect”—the *Arundo* growing between tarp edges. The tarping material often comes in 12-ft rolls, so for larger clumps some overlapping of pieces may be necessary. Keep in mind that larger tarps are easier to reuse because they can be cut smaller if necessary.

SECURE the tarp over the clump footprint with staples, washer pins, or rocks or other heavy objects from the site. Staples are more appropriate for non-rocky soils, and should be pounded in with a dead blow hammer about every 2 feet around the perimeter, or closer if needed. More rocky ground may require washer pins and a 3-lb sledgehammer, applied at the same spacing. Sometimes rocks or deadwood can be used to secure the tarp, but don't mine the surroundings. Use these materials only if the other methods are not working, and use them sparingly.

MONITOR the tarp every two weeks, patching any holes that occur. Avoid walking over the tarps as much as possible. Even a very small hole can provide enough light for the *Arundo* to survive.

TIMING is crucial to the effectiveness of tarping. Tarps should be laid during the active growing season and when there is minimal risk of being dislodged by floodwaters. In the Russian River watershed, the time period stipulated is May 1 through October 31, unless installed safely outside of the flood area. Tarps must remain in place at least six months to be effective, and often need to be reapplied the following season to allow for complete kill. The area should be monitored for at least an additional growing season after the tarp has been removed to ensure the root mass will not resprout.

TOOLS

- Tarping material. Choose a plastic material that is completely impermeable to light, as even a small amount of light can allow the root mass to survive. Hold a sample up to a bright light to verify. The material should also be of sufficient strength to keep resprouting stalks from poking through. A tensile strength of 200 lbs has proven sufficient. Finally, the material should be sufficiently pliable and lightweight as to be easy to use (usually a thickness of 12 mil). One suggestion: Hercushield 2400, made by In-Line Plastics.
- Tape measure
- Cutting implement
- Staples (12-in, 9 guage) staples for non-rocky ground
- Washer pins (12-inch, 7 gauge) for cobble or other rocky areas. These are headless nails with a bulge at the top and a washer attached below the bulge.
- Dead blow hammer (with staples) or 3 lb. sledgehammer (with washer pins)
- Proper protective clothing: long pants and long sleeves, eye protection, gloves, and boots.

COSTS

Suitable tarping material currently costs around \$0.20/sq.ft, plus shipping. Staples are about \$60 for a box of 500. Labor expenses are variable but can be considerable if tarp checks must be performed every two weeks.