

Arundo Eradication

California is grappling with the invasion of arundo, the non-native plant which is attacking delicate watersheds throughout the state. Arundo is a highly invasive plant clogging streams and rivers, diverting their path with a fast growing, ever reaching root system that force out native plants changing the natural ecosystem of watersheds.

Locally in the Ventura River watershed, naturalists were faced with how to remove the arundo and in September 2007 the Ventura County Watershed Protection District began the removal locally of the “Giant Reed”, or *Arundo donax*, in Matilija Canyon. That removal is the first step in restoring original habitat and watershed and removing the Matilija Dam with a total cost of \$144.5 million in congressional, state and local funding. The Army Corps of Engineers is involved in what will be the first major U.S. dam removal involving \$7 million in state funds for county engineering studies and arundo removal. An herbicide containing glyphosate, similar to Roundup, will be applied topically to the Arundo where it is located near water and residences. Elsewhere it will be sprayed by hand.

While the goal of habitat restoration has few opponents, some questions remain over the use of the herbicide to reach that objective. The Ojai Valley Green coalition invited two of its members to present the pros and cons on the subject. Dr. Robin Bernhoft, UCSF-trained liver and pancreatic surgeon, states the case against the use of glyphosate and Jay Simons, a with a degree in molecular biology and a master gardener, states the case for it's use.

“Spraying glyphosate on the Matilija watershed is a remarkably bad idea,” said Bernhoft. “Monsanto claims it won't get in our water.”

According to Bernhoft, The National Institute for Occupational Safety and Health has cautioned users saying glyphosate is water soluble and not to let this chemical enter the environment. Bernhoft feels this is unavoidable if it is sprayed in the watershed. He said Danish farming areas have shown high levels in their drinking water. Bernhoft is also concerned because glyphosate is a close cousin of the herbicides in Agent Orange, which are known to produce nerve degeneration and cancers in animals and humans.

Bernhoft feels there are enough concerns to warrant looking elsewhere for solutions such as Arundo harvesting. He believes a company, Nile Fiber Corp., deserves a hearing to look at the feasibility of the process.

Simons says extensive studies show that glyphosate is a relatively safe and preferred method of eradication. He believes harvesting will not allow native environmental regeneration and only permanent removal will.

“Arundo is invasive, destroys native species and habitats, is highly flammable, and destabilizes stream banks which results in flooding along the Matilija watershed,” said Simons. “Digging up roots or applying herbicide are the only two methods of permanent removal.”

He says the Ventura County Watershed Protection District's (vcwatershed.org) Arundo removal plan carefully considered application and solubility issues. He refers to EPA toxicity tests showing glyphosate to be virtually free of toxic side effects at the anticipated low exposure levels and says in EPA tests laboratory rats ingested glyphosate with no ill effects. Something he says is because the chemical works on a plant biochemical pathway not present in humans.

“Extensive use of glyphosate for years in both backyard and heavy commercial applications indicates no adverse effects,” said Simons. “Restoring our watershed requires the careful application of glyphosate.”

Some Glyphosate facts from the EPA:

- Glyphosate is an organic solid of odorless white crystals.
- Glyphosate is strongly adsorbed to soil, with little potential for leaching to ground water. Natural microbes in the soil readily and completely degrade it even under low temperature conditions.
- Glyphosate tends to adhere to sediments when released in water
- Glyphosate does not tend to accumulate in aquatic life.
- Short-term: EPA has found glyphosate to potentially cause the following health effects when people are exposed to it at levels above the MCL for relatively short periods of time: congestion of the lungs; increased breathing rate.
- Long-term: Glyphosate has the potential to cause the following effects from a lifetime exposure at levels above the MCL: kidney damage, reproductive effects.
- The MCLG (Maximum Contaminant Level Goals) for glyphosate has been set at 0.7 parts per million (ppm) because the EPA believes this level of protection would not cause any of the potential health problems described above

The Ojai Valley Green Coalition’s Board of Directors will be considering taking a stand on the issue. Visit their website at www.ojaivalleygreencoalition.org

For more information on the Arrundo removal:

<http://ojaivalleynews.blogspot.com/2007/09/arundo-donax-removal-begins-near-dam.html>

www.epa.gov/OGWDW/contaminants/dw_contamfs/glyphosa.html

<http://www.venturacountystar.com/news/2007/may/20/weed-invasion/?printer=1/cribed>
below.

<http://www.ovlc.org/>