

WEED OF THE WEEK  
SEPTEMBER 3, 2008

FEATURED SPECIES: ARUNDO, GIANT REED (*Arundo donax*)

One of the most important issues of this new century is and will continue to be creating new sources of Green Energy after the age of oil dependence. Sustainably fueling the future will mean finding new ways to work with the powerful resources of the earth, harnessing them without harm. As we examine our repertoire of alternative energies, it's important remember that not all green is good.

In recent years, biofuel has been gaining popularity and promise as one of our energy solutions. At this year's Kaua'i and statewide Hawai'i Conservation Conferences, various presentations addressed the benefits and risks of biofuels in symposia entitled, "Biofuels: Panacea or Pandora's Box?" The issues raised about biofuels do not necessarily question the process or the product, but rather, the plant. Some of the same sturdy, prolific characteristics that can make a species seem attractive as a biomass can lead to it becoming very invasive outside of its energy plantation. This week's featured weed has been one to cause global alarm: **Arundo donax, or giant reed.**

When a company started marketing Arundo as "E-grass" and wanted to plant thousands of acres in Florida, where it had already invaded natural areas, various groups voiced opposition. The Florida Native Plant Society, Sierra Club, The Nature Conservancy, and the Florida Exotic Pest Plant Council cited that Arundo is known to be very invasive (and costly to manage) in California and is already showing signs of invasion in Florida. As a stream and wetland invader that is dispersed in waterways, Arundo could easily spread in places like Florida and Hawai'i. Additionally, when conditions are dry, this sugarcane like grass with bamboo notching is a potential fire hazard. And if that is not enough to give pause, Arundo sucks up lots of fresh water (a big problem in Africa), clogs streams, and forms monotypic stands that evict wildlife from their natural habitat.

The impetus for using biofuels is the knowledge that we need to find different, better, and sustainable ways to provide energy. In the same vein, we need to do it better this time around, with caution and more consideration for the environment. As we face these energy challenges as a community, we must make informed decisions on which plants to select; ones that can provide more benefit than risk. The Global Invasive Species Program (GISP) talks about this in its **Assessing the Risk of Invasive Alien Species Promoted for Biofuels** publication when saying, "If these initiatives are not carefully assessed, however, promoting the cultivation of some popular species for biofuel production will increase two of the major causes of biodiversity loss on

the planet: clearing and conversion of yet more natural areas for monocultures, and invasion by non-native species.”

One of the best ways to assess species for biofuel is the Hawai'i Weed Risk Assessment (HWRA). The HWRA found *Arundo* to be a high risk (score 12), due to its known invasiveness in other regions and its dispersal characteristics. In GISP's publication, *Arundo* was ranked as a category 1 species that is “being cultivated and already known to be invasive,” and is not recommended to plant.

As the boom of alternative energies continues, we must continue to search for alternatives to invasive species as our biofuels, which are out there. See category 4, “species that are not prone to invasion,” in the GISP publication at <http://www.gisp.org/whatsnew/docs/biofuels.pdf>

Our energy cannot be at the expense of biodiversity. Biodiversity sustains life on Earth, and therefore, is vital to our sustainability.

*Arundo* continues to be a target of KISC with low level populations found mainly on the west side. If you spot *Arundo*, call 643-PEST. Let's plan for the future without planting weeds!

**NATIVE GARDEN ALTERNATIVE:** Want to help restore our native lowland habitats? Want to help prevent flooding in our community? Try planting *Makaloa* in your wet garden areas. This sedge grows in all the same places as *Arundo*, but without causing problems. Instead, it contributes to the balance and quality of the ecosystem, and as a bonus, can be used in traditional Hawaiian mat making. Learn more from Rick Barboza's column in The Star Bulletin: <http://starbulletin.com/2008/06/20/features/garden.html>