



Decades of College Dreams

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Beware of genetically engineered trees

By Debbie Barker and Martha Crouch

We should not let parts of the United States get overrun by genetically engineered trees. But that is what is at risk today.

The U.S. Department of Agriculture is considering whether to allow unrestricted planting of the first genetically engineered forest tree in the United States: eucalyptus engineered by ArborGen to grow in a colder climate. If approved, this would allow eucalyptus to be grown throughout a large part of the Southeast for the first time, where short-rotation plantations would be established to provide pulp for paper and biomass for energy.

ArborGen claims that its freeze-tolerant genetically engineered eucalyptus will grow faster and produce more wood per acre than either pine plantations or natural forests. The company stands to make a fortune if its request is approved. It predicts that its profits would increase from \$25 million to \$500 million in five years.

The burgeoning demand for hardwood pellets could further boost ArborGen's profits. The United States is the largest exporter of wood pellets, shipping them to the European Union to co-fire power plants in mandated efforts to reduce sulfur dioxide emissions and mitigate climate change. Although this sounds like a boon to the environment, studies show that while wood pellet biomass can lower sulfur dioxide emissions, other pollutants increase. And burning wood pellets may not lower overall greenhouse gas emissions as promised.

Growing genetically engineered eucalyptus presents other environmental problems.

For example, a U.S. Forest Service environmental assessment reported that these newfangled trees would use up at least twice as much water as native trees in the Southeast, potentially squeezing a region already experiencing water scarcity.

Eucalyptus, a highly flammable tree, also could increase risks from wildfires.

Proposed plantation management practices include use of pesticides, fertilizers and heavy equipment with negative impacts on water and soil.

And creatures that depend on natural forests will find little of use in monocultures of non-native eucalyptus – no nutritious nuts and berries, or edible leaves, to eat.

In the end, plantations stocked with genetically engineered trees could replace more biologically diverse landscapes, while also putting remaining forest ecosystems at risk.

Before taking this new path through the woods, we need long-term, comprehensive testing and analyses to determine whether genetically engineered trees lead to a sustainable future for all or simply to short-term profits for a few.

ABOUT THE WRITERS

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