

# GENETICALLY ENGINEERED LOBLOLLY PINE IN THE SOUTHEAST

BY GLOBAL JUSTICE ECOLOGY PROJECT & THE CAMPAIGN TO STOP GENETICALLY ENGINEERED TREES



## BACKGROUND

In August 2014, The USDA refused to regulate a genetically engineered loblolly pine (*P. taeda*) tree developed by GE tree company ArborGen. This decision, which the USDA only made public in January 2015, allows ArborGen to pursue commercial cultivation of GE loblolly pine with no federal oversight, no public input and no risk assessments. This is the first GE forest tree to be allowed in the US. But it is not yet being planted commercially, and YOU can help us stop it.

## TRAITS

ArborGen's GE loblolly pines are engineered for increased wood density, likely for use as biomass pellets. Loblolly pine trees also naturally produce terpene, which is used to produce biodiesel. Researchers are genetically engineering loblolly pines to increase the storage capacity of terpene produced by "genetically improved" loblolly. Generally loblolly can store up to 4% of its dry weight capacity in terpene and researchers are working on increasing the terpene dry weight capacity to almost 20%.

## RISKS

**Genetic contamination:** A favored timber species, Loblolly pine (*P. taeda*) is one of the most important tree species in the US. 80% of the 31 million acres of pine plantations in the Southeastern US are comprised of loblolly pine. It grows from New Jersey to Texas. Pollen from loblolly pine can travel up to 40 km. Avoiding contamination of existing loblolly pines from GE loblolly pines would be impossible, and the impacts are unknown and unpredictable.

**Increased flammability:** Terpene, which is naturally created by wild loblolly pine, is flammable. Increasing the concentration of terpene in plantations of loblolly pine, combined with increased regional drought and high temperatures, creates prime conditions for deadly firestorms.

**Continued reliance on extreme energy:** Loblolly pine is a key species for the development of the Southern bioeconomy. While using trees to produce energy may sound "green," it could lead to increased deforestation and reliance on chemical herbicides and pesticides in plantations. Tree plantations store less carbon than native forests.

GLOBAL JUSTICE ECOLOGY PROJECT  
266 Elmwood Avenue, Suite 307  
Buffalo, NY 14222  
716.931.5833

[globaljusticeecology.org](http://globaljusticeecology.org)  
[info@globaljusticeecology.org](mailto:info@globaljusticeecology.org)



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<http://nogetrees.org>  
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