

Freeze Tolerant Eucalyptus: A biotech solution for purpose grown hardwoods

Mike Cunningham¹, Maud Hinchee¹, and Lauren Mullinax¹

Eucalyptus hybrids are some of the fastest growing and highly productive forest tree species in the world. Some hybrids routinely produce in excess of 20 green tons per acre per year on 5 to 7 year rotations in Brazil. These high yielding fast growing plantations are ideal candidates for biomass plantations since it can be managed on short rotations, is capable of coppice regeneration, has a high ratio of wood to foliage and can be grown at high densities. Unfortunately, these hybrids can not be grown in the southeastern United States except for the southern portions of Florida due their low tolerance for freezing temperatures.

ArborGen is the late stages of development of a freeze-tolerant eucalyptus product which harnesses the high productivity of a hybrid variety of Eucalyptus, grown already in southern portions of Florida. Freeze tolerance technology will allow it to be grown in northern portions of the state and other regions of the Southeast US. ArborGen has implemented an extensive field testing program where this variety has been shown to produce very high biomass yields on a short rotation cycle and can withstand below freezing temperatures frequently experienced along the lower Gulf and Atlantic Coastal Plains. Current estimates show that these trees can be grown, harvested and shipped to a processor at an economically competitive delivered cost, creating value for both the landowner and processor.

¹ ArborGen LLC. Tallahassee, FL