Living Carbon has engineered a poplar tree that soaks up carbon and fights climate change. What are the barriers to rolling this out?

A California biotech company seeking to create fast-growing trees that can rapidly soak up atmospheric carbon dioxide has announced its first experimental results: the firm's genetically enhanced poplars grew more than 1.5 times faster than unmodified ones in lab trials. Plant scientists applaud the news, but caution that much more work is needed before engineered trees can start to help curb climate change.

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Scientists and environmentalists have promoted tree planting as a promising and easily expandable way to draw down atmospheric levels of carbon dioxide, the primary cause of global warming. Trees, which are roughly half carbon by dry weight, absorb the gas from the air and turn it into stable forms of carbon such as wood and roots.

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Even if field trials pan out, Living Carbon could face a lengthy regulatory process in order to sell the trees. In the United States, federal regulators have never approved the release of a tree engineered for fast growth.

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[Geneticist Steve] Strauss, for one, believes the urgency of addressing the climate crisis outweighs potential risks associated with transgenic trees. "We don't have the luxury," he says, "to wait for 30 years and make sure nothing can possibly go wrong."

This is an excerpt. Read the original post here.