



# The Forest Stewardship Council is Opening the Door to the Global Release of Genetically Engineered Trees

*“The FSC wishes to engage its membership to assess whether its ban on the commercial use of genetic engineering in non-certified plantations and products remains appropriate.”*

– Forest Stewardship Council, September 2021<sup>1</sup>

*“FSC will explore if it could play any role in responsible governance of genetic engineering.”*

– Forest Stewardship Council, February 2022<sup>2</sup>

## Overview

The global threat of genetically engineered (GE or genetically modified) trees is closer than ever. Ironically, it could be the Forest Stewardship Council (FSC) – the organization that describes itself as “the original pioneers of forest certification,” and claims to “promote the responsible management of the world’s forests”<sup>3</sup> – that may open the door to the commercialisation of GE trees.

The commercial release of GE trees would pose multiple serious risks to forest ecosystems, local communities, and Indigenous peoples around the world. Commercial planting of genetically engineered trees would be a large-scale experiment in our environment, with unpredictable and potentially irreversible consequences.<sup>4</sup>

FSC currently prohibits GE trees in certified operations and products, and prohibits certified companies from commercially using GE trees in non-certified areas, but FSC is taking concrete steps towards removing its prohibition.

FSC’s decisions are closely tied to the future of GE trees. In fact, **FSC’s prohibition on GE trees currently stands in the way of commercialisation of a recently approved GE eucalyptus in Brazil.** FSC-certified pulp and paper company Suzano recently received approval in Brazil to commercially plant a GE herbicide-tolerant (glyphosate-tolerant) eucalyptus tree (November 2021). **However, Suzano can only commercially plant its GE tree if FSC overturns its current policy** that prohibits certified companies from growing GE trees commercially in non-certified areas, or if Suzano leaves the FSC.

The approval of the GE eucalyptus tree was denounced by civil society organizations in Brazil and across the world.<sup>5</sup>

## What's at stake

*“Genetically engineered trees are a threat to a sustainable future. Genetic engineering provides a distraction from real solutions and its deployment would pose a concrete danger to forest ecosystems.”*

– Fundación Ambiente y Recursos Naturales (FARN); Huni Kui Peoples’ Federation of Acre, Brazil; Indigenous Environmental Network; Ecoropa; Global Forest Coalition; Global Justice Ecology Project; Biofuelwatch; Canadian Biotechnology Action Network, 2021<sup>6</sup>

**Forests would be at risk from unknown and unpredictable impacts and interactions with genetically engineered trees.** Forest ecosystems have a high degree of complexity, which is recognised but still not fully understood, making it unlikely that we will be able to understand or predict the potential impacts of intentionally or unintentionally introducing GE trees.

**Unforeseen impacts** can arise from the release of trees with new intended genetically engineered traits, as well as with the many possible unintended modifications that can result from the processes of genetic engineering.<sup>7</sup> Unintended effects from genetic engineering could, for example, change the safety or nutritional quality of seeds and nuts;<sup>8</sup> or alter wood rotting qualities which may impact fungal communities and the larval development of some insects. **Even intended changes at the DNA level may impact the behaviour of trees in unexpected ways**, such as changing stress responses<sup>9</sup> and interactions with other species, including over space and time. Experience with GE crop plants already warns that plantations of GE insect- or disease-resistant trees could shift pest pressures, with impacts on surrounding trees and forests.<sup>10</sup>

There are active proposals to deliberately release genetically engineered trees into the wild.<sup>11</sup> The use of GE trees in plantations would also put forests and forest ecosystems at risk from GE contamination, including invasiveness over time. The contamination risks from GE trees are particularly high because trees are long-lived organisms that produce abundant pollen and seed designed to travel long distances,<sup>12</sup> through wind dispersal and with help from animals. **Once GE contamination begins, it cannot be stopped.** GE trees will contaminate native forests, which themselves will become contaminants in a never-ending cycle.

## Commercialisation of GE trees would be the result if FSC removes its ban

*“FSC is at the moment is a market barrier...But we are seeing a change in the certification bodies. FSC now allows forestry companies to look at research into GM trees. We are encouraging dialogue with FSC.”*

– Stanley Hirsch, CEO of FuturaGene, the tree biotechnology subsidiary of FSC member **Suzano**, 2012<sup>13</sup>

The Forest Stewardship Council prohibits the use of genetically engineered trees in FSC-certified operations and products (since 1995): **FSC names growing GE trees<sup>a</sup> as an “unacceptable activity,”** though it now allows FSC-certified companies to run outdoor GE tree field tests for research purposes in non-certified areas (since 2011).

<sup>a</sup> The FSC “Policy of Association” names genetically modified organisms (GMOs) as prohibited but the FSC Board proposed a change to this language in 2021, to narrow the ban to genetically modified trees in particular.

**The commercial release of GE forest trees would be imminent if FSC continues taking steps toward allowing GE tree planting in certified or non-certified areas.** The current FSC prohibition has served as a block on GE tree commercial pursuit globally and has therefore been the target of a pressure campaign from biotechnology tree researchers.<sup>14</sup>

It is clear that FSC's policies have a direct impact on the global development of GE trees. For example, FSC's earlier decision to allow field tests of GE trees for research in non-certified areas resulted in companies expanding their development of GE trees. In 2014, the company Fibria (now **Suzano**) said, "Fibria has been carrying out research with Genetically Modified Eucalyptus since the late 1990s in controlled environments (both laboratory and greenhouse). Since 2011, **with the new FSC interpretation on GMO Policy, Fibria has expanded field trial research** in areas outside the scope of certification. Currently, Fibria has 92 hectares with GM Tree field trials (less than 0.01% of the company's total area), into 11 different field trials [emphasis added]."<sup>15</sup>

## **FSC's "genetic engineering learning process"**

FSC has begun a "genetic engineering learning process" to develop a set of rules so that FSC can **directly oversee selected outdoor research field tests of GE trees** on non-certified areas. FSC says, "The learning project would also set the base for discussing whether or not we should allow companies to be associated with FSC while using GE outside of any FSC certified operations."<sup>16</sup>

"FSC intends to use this knowledge to determine whether it could develop a **governance model** ensuring rigorous safeguarding, risk management and shared value creation for genetic engineering in forestry in non-FSC certified area. **The learnings would also be used to update existing policies** and enable informed decision making for FSC and its members on topics related to developments in genetic engineering in forestry in the future [emphasis added]."<sup>17</sup>

The FSC learning process is divided into two phases. In the ongoing first phase, FSC established a "panel of experts" (June/July 2022) to develop "safeguards" that future FSC-governed field tests of GE trees would need to comply with.<sup>18</sup>

The panel includes the GE tree advocate and developer Professor Steven Strauss of Oregon State University in the US who has campaigned for over twenty years for an end to FSC's ban on GE trees,<sup>19</sup> and for weaker international and national risk assessment regulations.<sup>20</sup> Most recently, Prof. Strauss co-authored a paper that argued for "Low Level Presence" policies that **accept levels of contamination** from some GE perennial crops, to reduce the legal risks and costs of field testing.<sup>21</sup> The paper suggests that there could be "noncontained" field research for some GE grasses and trees and argues for a reliance on industry stewardship such that there would be "no requirement for tracking gene dispersal nor legal liability for gene movement."

If FSC moves ahead to devise guidance and oversee some field tests as proposed in the second phase of the process, **FSC itself will be directly responsible for any resulting GE contamination or other environmental impacts from these outdoor experiments.**

A move to the second phase of this process would also signal to FSC-certified companies, and other companies with an interest in being FSC-certified, that they can continue to invest in GE trees development because they may soon be permitted to grow GE trees for commercial use on non-certified land.

## Why?

FSC says its new process is necessary because “FSC is aware of several FSC certified companies advancing their genetic engineering research, and FSC’s policies in this area do not reflect current status in research or technologies.”<sup>22</sup> FSC-certified companies with known field tests of GE trees are **Suzano** (Brazil), **Stora Enso** (Sweden), and **International Paper** (Brazil).

FSC rationalizes its project by saying, “Genetic engineering in forestry is likely to continue to happen with or without FSC, and the learning process explores if and how the experience of FSC as platform for dialogue and stewardship of forests can contribute to minimize the potential negative impacts and optimize the potential benefits of the technology in this sector.”<sup>23</sup> This is a fatalistic declaration about the role of the FSC – whose certification policies are based on the ethical principles and ecological standards of its membership and is the foundation for consumer trust – which has been critical in stopping the advance of GE trees and their contamination of forests. Most importantly, the process downplays or ignores the serious risks posed to forest ecosystems around the world.

## FSC’s Next Steps

**At the FSC General Assembly in October 2022, FSC members will vote** on two related motions (Motions 15 and 44) that could impact the future of GE trees in FSC. Motion 44 would ensure decision making power on GE policies is in the hands of FSC members, and Motion 15 would end the process examining “sustainable intensification” which houses the genetic engineering learning process.

**In November 2022, the FSC Board will decide** if the FSC “learning process” moves ahead to the next phase where companies would be invited to apply for FSC governance of their field tests, or if the entire process will be cancelled.

**For further information** see [www.cban.ca/trees](http://www.cban.ca/trees) or [www.stopGETrees.org](http://www.stopGETrees.org)

**Take action:** Sign to call on the Forest Stewardship Council to maintain its long-term, important ban on the commercial use of genetically engineered trees, and halt its plans to oversee GE tree field tests. **Sign before October 5, 2022 at** [www.stopGETrees/FSCactioncall](http://www.stopGETrees/FSCactioncall)

**Contact:** [trees@cbn.ca](mailto:trees@cbn.ca)

**The Canadian Biotechnology Action Network (CBAN)** brings together 15 groups across Canada to research, monitor and raise awareness about issues relating to genetic engineering in food and farming. CBAN is a project on the shared platform of MakeWay Charitable Society. [www.cban.ca](http://www.cban.ca)

## Endnotes

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