Science of Forestry

The cells, tissues, and organs of a plant are separated, then grown in the test tubes with a nutrient media under controlled conditions of temperature and light. The cultured plant lives off a source of energy from sugar, salts, and vitamins. From these cultured parts, an embryo or explant develops which then grows into a whole new plant or tree. It was the French botanist George Morel who first discovered the technique in 1965 while he was attempting to obtain a virus-free orchid plant. Tissue culture has been around commercially since the 1970s in advanced countries, and is now widely used in the developing world. Tissue culture is really the mass cloning of elite tree species, and has been shown to have better results than for open-pollenated seedlings from the same trees, with commercial plantations operating on as little as 14 year cycles for the growing of teak. The concept has great relevance for countries like Sri Lanka where agriculture is still the predominant activity and requires new technology to increase production. As a leading forestry provider, Oxigen Plantations uses tissue culture for the development not only of Teak but also Agarwood in Sri Lanka.

Teak from tissue culture grows fast. Here's a tree at three and a half years old, which already measures 56cm

And here's one measuring 101cm, which has been growing for twelve years. A typical teak tree grown from seed would be only 60cm at this stage