



The Miyawaki method in a nutshell

The Miyawaki method consists in **creating or restoring forests** by densely planting local plant species. It is named after its inventor, Professor Akira Miyawaki, a Japanese botanist born in 1928.

The techniques he developed in the 1970s are revolutionary: forests created or restored in this way grow faster than forests planted in the usual way, and within just a few years they are home to **exceptional biodiversity**. This method requires a minimum plot size of 100 m².

How do we create such forests? Firstly, by selecting a wide variety of local species. For example, in the Île-de-France region, a forest planted using this method will be made up of **around thirty species**, including beech, holly and hazel.

Species selection takes into account the proportions that characterized the **native forest** on the site, between the tallest trees (canopy), medium-sized trees, shrubs and bushes.

Ideally, plants should be **around 30-50 cm high**. Taller plants run the risk of their roots being cut off when they are replanted before being transported; shorter plants may not survive replanting, due to the stress involved.

Next, samples are taken from the entire surface of the site, to better understand its nature. We **prepare the site** by cleaning and weeding by hand. Then we improve the **quality of the soil**, mixing it with manure or compost on the one hand, and bark or wood chips on the other. This has a number of advantages: it makes the soil more fertile, increases its capacity to retain water, and makes it easier for roots to penetrate.

The different species are then **planted very densely** - around three plants per square meter - distributed randomly, allowing for intense root communication: **strategies of mutual aid and virtuous competition** are put in place, as the plants, helped by their neighbors, grow very quickly in order to keep their exposure to sunlight. Finally, the soil is **covered with a mulch to protect the soil** and the young plants, and to ensure constant humidity.

All along the year, the site is weeded to ensure that no other species can compete with the young forest. Removed plants are left on site to complete the initial mulching, which must remain thick (around ten centimetres). The site must be watered regularly in hot weather.

After **three years**, the forest is **self-sufficient** and no longer requires human intervention. In twenty years, it will look like a hundred-year-old natural forest.