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Regeneration/planting

Regeneration/planting means exactly what the terms suggest: when a forest stand or area of forest has been harvested it has to be replaced by new, growing forest.

Regeneration/planting makes good sense with both the economic and environmental assets that growing forest brings with it in mind. But the Swedish Forestry Act also refers to this obligation to regenerate.

There are three main methods of regeneration: Planting, sowing and self-regeneration.

Planting is the most common method of regeneration in Swedish forestry. It is also the most reliable method to obtain good results in regeneration. Most of what is planted in Swedish forestry is various types of pine and spruce plants cultivated and selected to obtain good prospects for life and growth. The usual number of plants per hectare is between 1700 and 3000, depending on various factors.

Before planting can be carried out what is known as soil scarification of the intended area is often carried out. In scarification the top layer of soil is scraped using a special unit known as a scarifier to provide good conditions for the plants. Scarifying the top layer of soil reduces the competition from other vegetation and the plants have more even access to water.

In practice the planting is done with a special planting tube which is inserted into the ground and in which the plant is then dropped into the soil. The plants should preferably be set surrounded by mineral earth and at least one metre apart. The best time for planting is in the spring, when the ground frost has released its grip and the soil is moist.

Another but less common regeneration method is sowing. This method is not as reliable, partly because the embryos formed from the seeds may be sensitive to variations in weather conditions. Sowing is performed mostly with special machines that scatter the seeds in patches or rows.

The oldest method of regeneration is self-regeneration or natural regeneration. This involves large special trees, known as seed trees, being left after felling with the intention that they will release seeds in the natural way. This method is cheap and provides positive natural assets but is not as reliable as planting. As in sowing, the seeds are sensitive to weather conditions, particularly in cold weather.

