

Live brushwood faggot - fascine

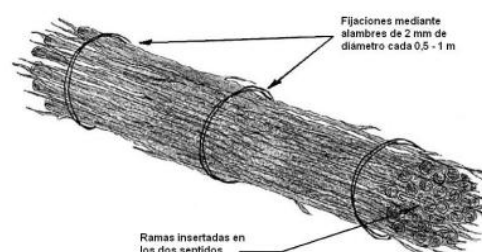
General characteristics

This technique is used to re-vegetate and stabilize rivers, lakes and lagoons margins and it consists in the installation of faggots made of bushes and trees branches of riparian species that are able to reproduce in a vegetative way.



The brushwood faggot is built by disposing all the branches in the same direction.

Scheme



Technical characteristics

With this technique, we can use vegetal waste coming from the application of other bioengineering techniques where bigger bushes and logs are used, this action turns waste into new resources. The material used to build the fascines is, generally, the left over from the alive stakes preparation. It is important that some of the branches measure at least 3cm wide, because these wider spots are those which will grow, while the thinner branches develop a structural function retaining soil until a resistant root tissue is fully grown. The denser and more compact the structure is, the better it will work. It is important and preferable to use autochthonous and local species, as well as building them during the non-growth season.



Experiences with soil and water bioengineering techniques

Naturalea has successfully installed and used *Salix eleagnus*, *Salix atrocinerea*, *Salix purpurea*, *Sambucus nigra*, *Vitex agnus-castus* and *Tamarix gallica* in different projects and zones.

In Mediterranean zones these structures are settled by burying completely a first layer of fascines, then, one or more layers can be added depending on the zone's conditions and the erosion control necessity. When more than two layers are installed with the will of re-vegetating them all, we call that *Ribalta* technique.



Technique evaluation

Simple technique that allows to use efficiently materials before classified as waste. It is essential to bury properly the fascine in order to ensure a correct growing and development of the root system. If the roots don't grow properly the whole structure could collapse.

It is also important to fix the fascines to the ground with deep stakes or steel bars to increase its resistance while the new roots are growing.

Fascine at its first spring:



Fascine 4 years later:



Elderberry (*Sambucus nigra*) fascine just installed and two years later:

