

Experiences with soil and water bioengineering techniques

Ribalta

General characteristics

This technique is used with the objective to apply an immediate protection of the edge. You use stratums overlapped by alive fascines, placed longitudinally at the edge, and alive stakes, normally of willow placed transversely at the edge over the medium water level. You can repeat the structure reaching the high that you want.

Technic characteristics

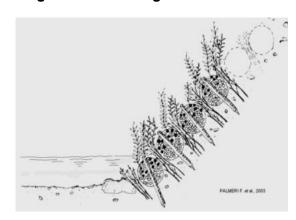
Because of the effect of the branches the current velocity reduces and as a consequence of that the edges erosion reduces too. This fact allows the deposition of fines and improves the edge conditions for his fast vegetation.

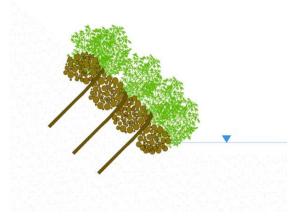
It is basic to choose alive branches species ecotypes and adequate quality at the zone of the work, because these ones will guarantee us the future viability of the technique when the plant will become ingrained at the slope and it will stabilize it.

The Ribalta is adequate for the low fluvial slopes with an unstable surface at least of 2 m over the water level and in constant damp places.

The velocity has to be under the 3.5 m/sec. The maximum gradient that can be in Ribalta is about 60°, but this will always be conditioning the local conditions

Diagram / detail images









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Technique valuation

The Ribalta, like an alive fascine evolution, is an efficient way to protect edges with height.

It is necessary an important quantity of alive branches for doing it, and because of that, it is interesting to realize it in zones with material availability. The fascines have to cover well, because if they don't, although it seems to produce new shoots at the beginning, in a long time it can be able to produce a radicle system that makes it viable.

It is also important to fix the fascine ensemble with deep stakes or corrugated bars to give resistance to the structure until the correct development of the roots.

