

Agroforestry Design Template

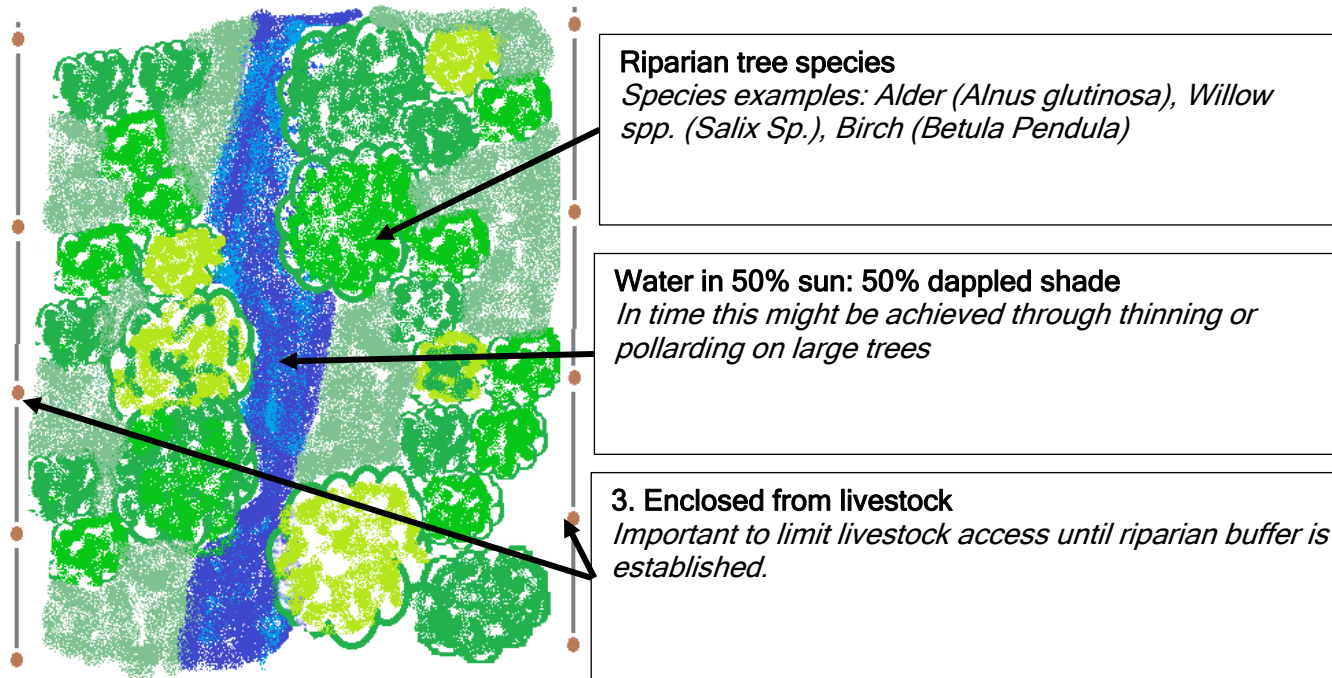
Shelter Belt Planting Design

With design credit to John Davis .- Creating a Shelterbelt [Link here](#)

Riparian buffers are areas of trees and bushes planted along a water course, they can prevent soil and agricultural chemical running off into watercourses. Tree riparian strips offer important shade to buffer against rising water temperatures and a fantastic corridor within the farmed environment for biodiversity. Restricting livestock access to the river can also reduce incidences of liver fluke and other water borne diseases.

Design Applications: Livestock Shelter, Watercourse protection, habitat connectivity.

Riparian Buffer Design



What to consider when placing this design in landscape



A successful riparian planting will represent an open native woodland, aiming for 50% of the watercourse to be in dappled light shade and 50% in sun. Plantings from 5-30 meters wide have been successful at reducing run off, this depends on many factors such as tree density, slope, rainfall intensity, soil type and cropping etc. Slopes above 7% will be ineffective at stopping run off. This is best attempted at a tributary or even catchment level to drastically improve water quality.

Examples species composition table

Design Layer	Example Species	Planting distance
Large Tree Component	Alder (<i>Alnus glutinosa</i>), Willow Spp. (<i>Salix sp.</i>) Birch (<i>Betula pendula</i>), Field Maple (<i>Acer campestre</i>), Wild Pear (<i>Pyrus communis</i>)	All planting should follow a randomly mixed species Clump pattern along the watercourse. It is important for the design to offer sections of dappled shade and full sun for the water course. Tree species should be planted at 2 m distance with shrubs closer at 1m.
Small Tree/Bush Component	Hawthorn (<i>Crataegus monogyna</i>) Holly (<i>Ilex aquafolium</i>), Hazel (<i>Corylus avellana</i>), Blackthorn (<i>Prunus spinosa</i>), Sea Buckthorn (<i>Hippophae rhamnoides</i>), Elder (<i>Sambucus nigra</i>), Crab Apple (<i>Malus sylvestris</i>)	