## Faidherbia Albida

Keystone of Evergreen Agriculture in Africa



Faidherbia is a leguminous nitrogen-fixing acacia-like species that is indigenous all over Africa. Faidherbia has a unique compatibility with cropping systems due to its 'reverse leaf phenology' – it is dormant during the wet season and drops its leaves to fertilize associated crops. Its leaves only grow during the dry season and provide nutritious livestock fodder during critical periods of drought. Its properties and utility have been researched for 60 years by agroforestry scientists.

Some 500,000 farmers in Malawi, Tanzania, and Zambia cultivate their crops in *Faidherbia* agroforests and report that their maize yields are doubled or tripled.

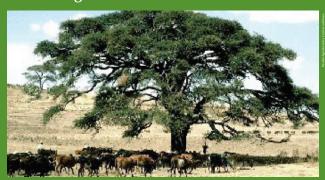


Farmers throughout Malawi sustain Faidherbia agroforests in their maize fields. (Malawi, 2009).



Crop yields under the canopy of Faidherbia are often observed to be double or triple those outside the canopy of the tree (Zambia, 2009).

Millions of farmers grow sorghum or millets in association with *Faidherbia* trees in Niger, Nigeria, Burkina Faso, Mali, Senegal and several other countries in the Sahel. Accelerating farmer-managed natural regeneration with *Faidherbia* forests on crop lands is re-greening major parts of the Sahel.



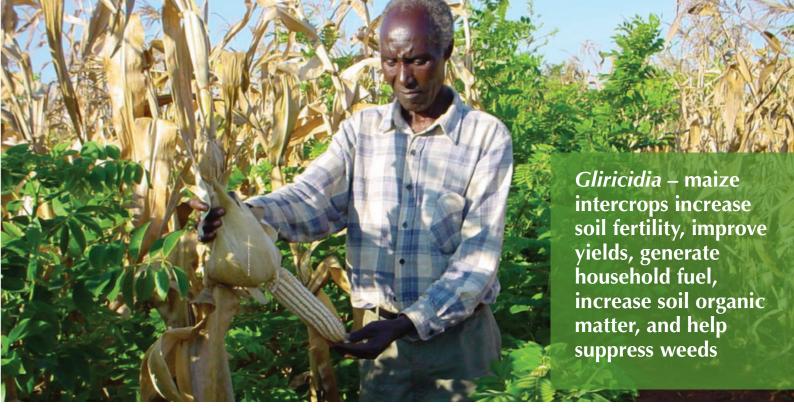
Livestock producers value Faidherbia for its high quality leaf and pod forage during the most severe drought periods.



Faidherbia-dominated farmlands in Niger with up to 150 trees per hectare. Trees are black dots on the image, with a farming village in the centre. Farmer-managed natural regeneration of Faidherbia-dominated agroforests in the sorghum-millet growing zones of Niger cover more than 5 million hectares. Zinder, Niger.

One goal of agroforestry science is to refine, adapt and extend *Faidherbia* systems to tens of millions more farmers and to pastoral communities throughout the African continent.





## Evergreen Agriculture

Evergreen Agriculture is Conservation Farming with Trees that sustains a green cover on the land year-round, enhancing food security and environmental resilience.

Evergreen Agriculture encompasses an array of practices that follow three fundamental principles:



1) Get more annual and perennial legumes into cropping systems through judicious rotations to enhance sustainability

Faidherbia albida agroforests with minimum tillage maize provide organic fertilize

Faidherbia albida agroforests with minimum tillage maize provide organic fertilizer and abundant nutritious livestock fodder, sequester carbon, and offer protection from water and wind erosion. GART experiment station, Zambia.



Small-scale conservation agriculture with *Faidherbia albida* trees, legume crops in rotation with maize and minimum tillage are being extended to 240,000 farmers in Zambia.



2) Minimize soil tillage to reduce labour and land preparation costs while enabling farmers to plant on time for best yields

Permanent planting basins minimize primary tillage, concentrate nutrients, and harvest rainwater. They enable small farmers to plant their crops earlier and take advantage of early rains for higher yields.



3) Retain maximum soil cover for enhanced soil fertility and protection from wind and rainwater erosion

Faidherbia and Gliricidia maintain ground cover throughout the off-season to maximize N-rich biomass and reduce weed growth. Farmer's field, central Malawi.

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