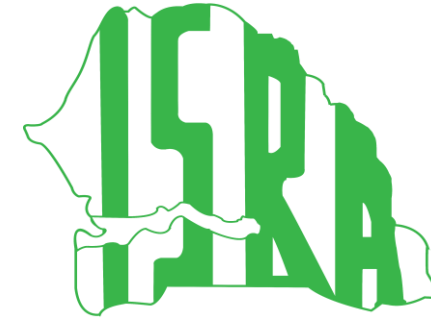




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Increasing yields by using intercropping, pruning, and mulching with *Piliostigma* shrubs



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What happens if...

1000 *Piliostigma* shrubs are intercropped with 1 ha of sorghum and...



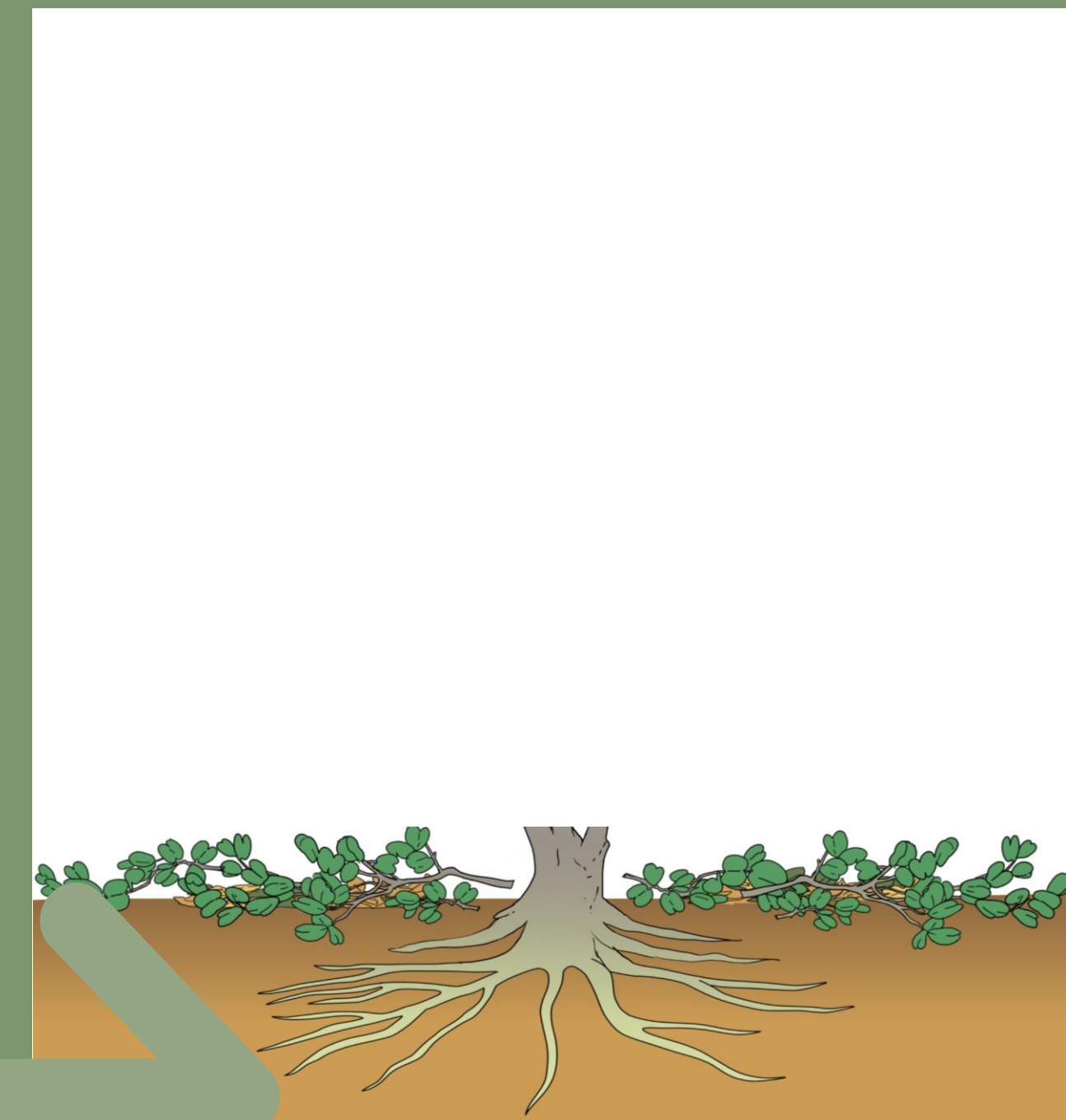
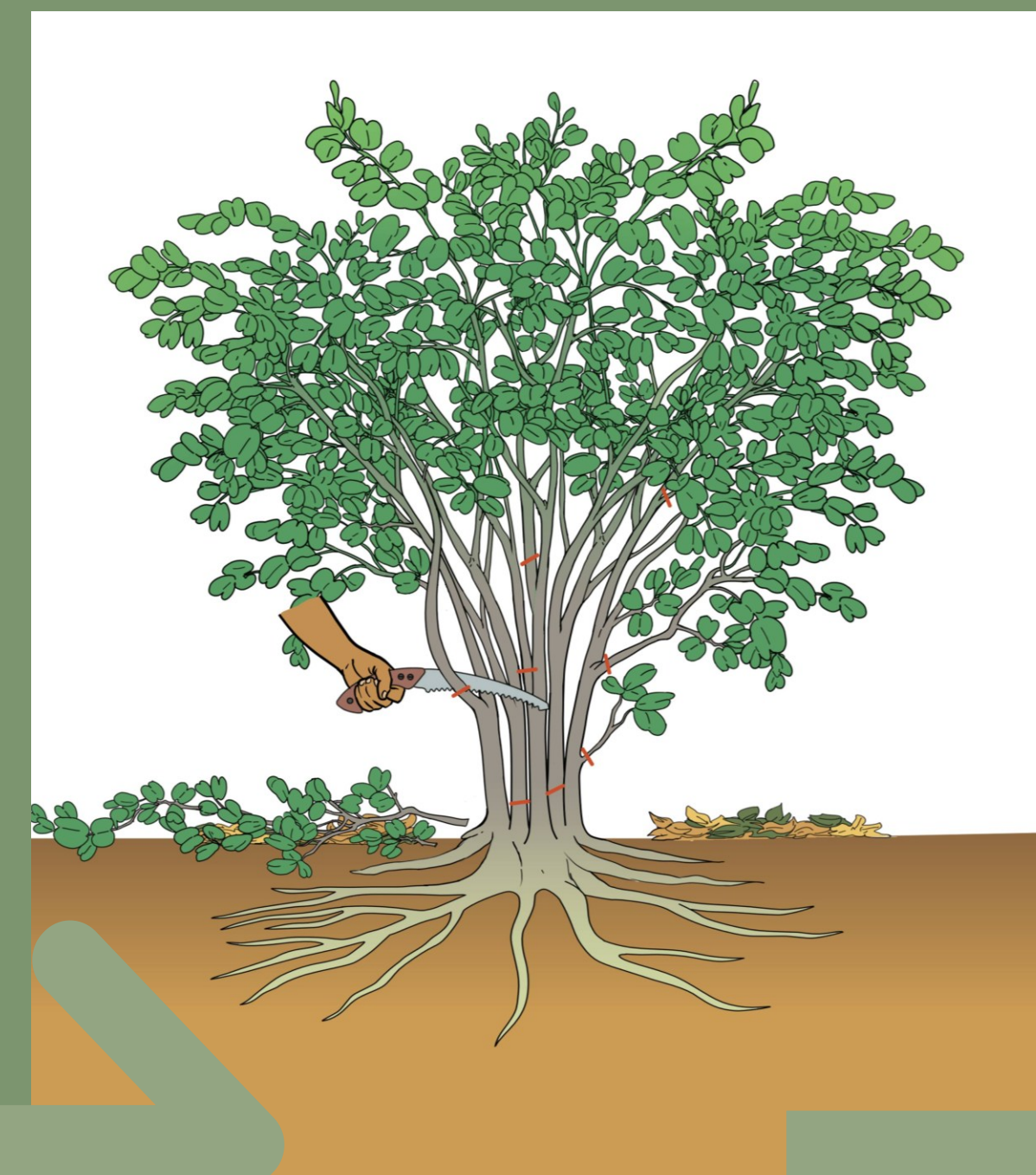
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... the shrubs are pruned twice a year ... and the leaves are spread to cover the ground?



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According to our research Sorghum yields increase and can be doubled.

This poster is based on simulations conducted using the Lucia agroforestry modeling program by Dr. Eric Koomson, Dr. Carsten Marohn, and Prof. Georg Cadisch from the University of Hohenheim. The simulations relied on climate data and field experiences gathered from various research teams conducting experiments at seven sites in Mali, Burkina Faso, and Senegal as part of the Sustain Sahel project.

The results are supported by field trials which demonstrated that intercropping and mulching with *Piliostigma* increased cowpea yields (Gnissien et al., 2023).

Complementary scientific reference:

GNISSIEN, M., COULIBALY, K., BARRO, M., DOUZET, J.-M., COURNAC, L., CICEK, H., & NACRO, H. B. (2023). Effets longue-durée de différentes densités de *Piliostigma reticulatum* (DC) Hochst sur le stockage et la dynamique du carbone et de l'eau dans un Plinthosol épipédrique en zone nord-soudanaïenne du Burkina Faso. *International journal of biological and chemical sciences*, 17(3). <https://doi.org/10.4314/ijbcs.v17i3.36>

Roesler, Regina; Cicek, Harun; Cournac, Laurent; Gnissien, Moussa; Männle, Julia; Koomson, Eric; Founoune-Mboup, Hassna; Coulibaly, Kalifa; Diouf, Abdoul Aziz; Sanon, Hadja Oumou; Cadisch, Georg; Graefe, Sophie (2025): Towards transdisciplinary identification of suitable woody perennials for resilient agro-silvopastoral systems in the Sudano-Sahelian zone of West Africa. In: *Agroforest Syst* 99 (1), S. 1–20. <https://doi.org/10.1007/s10457-024-01113-4>



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