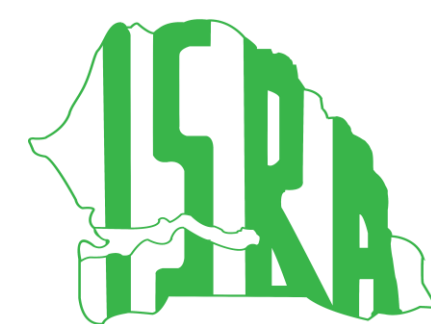




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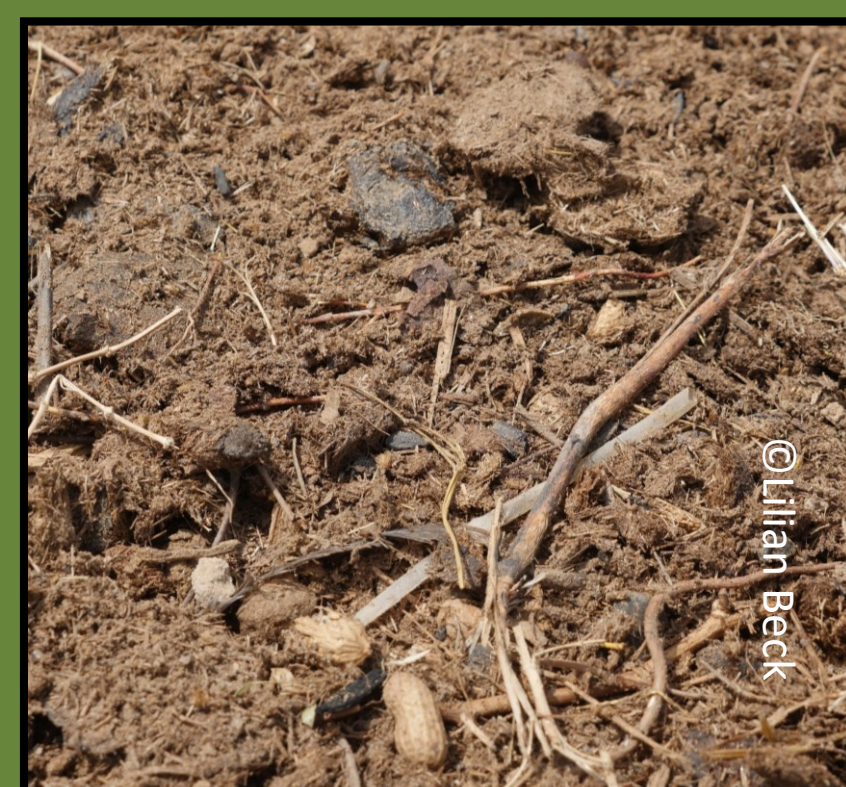
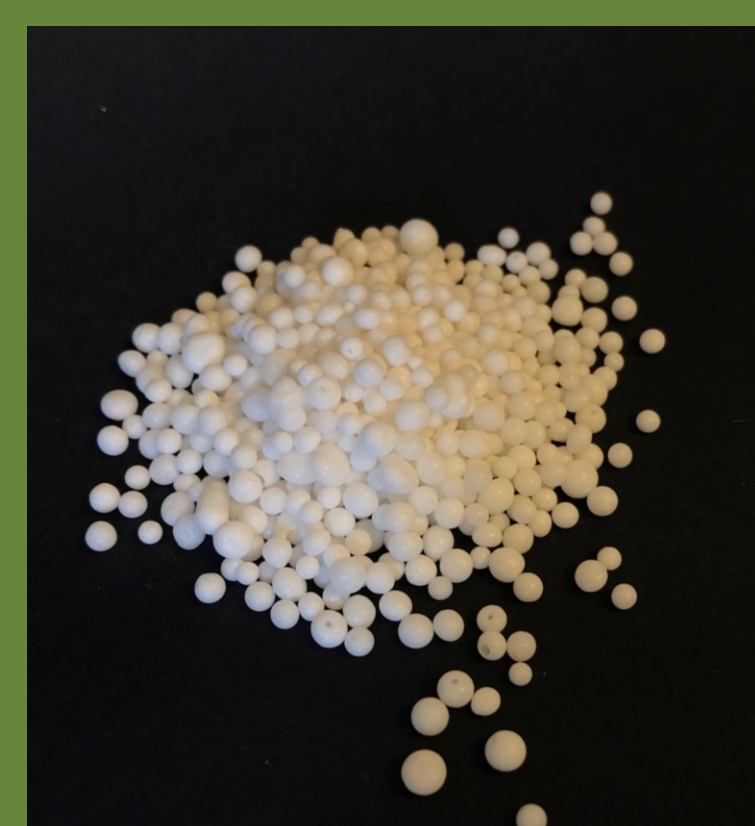


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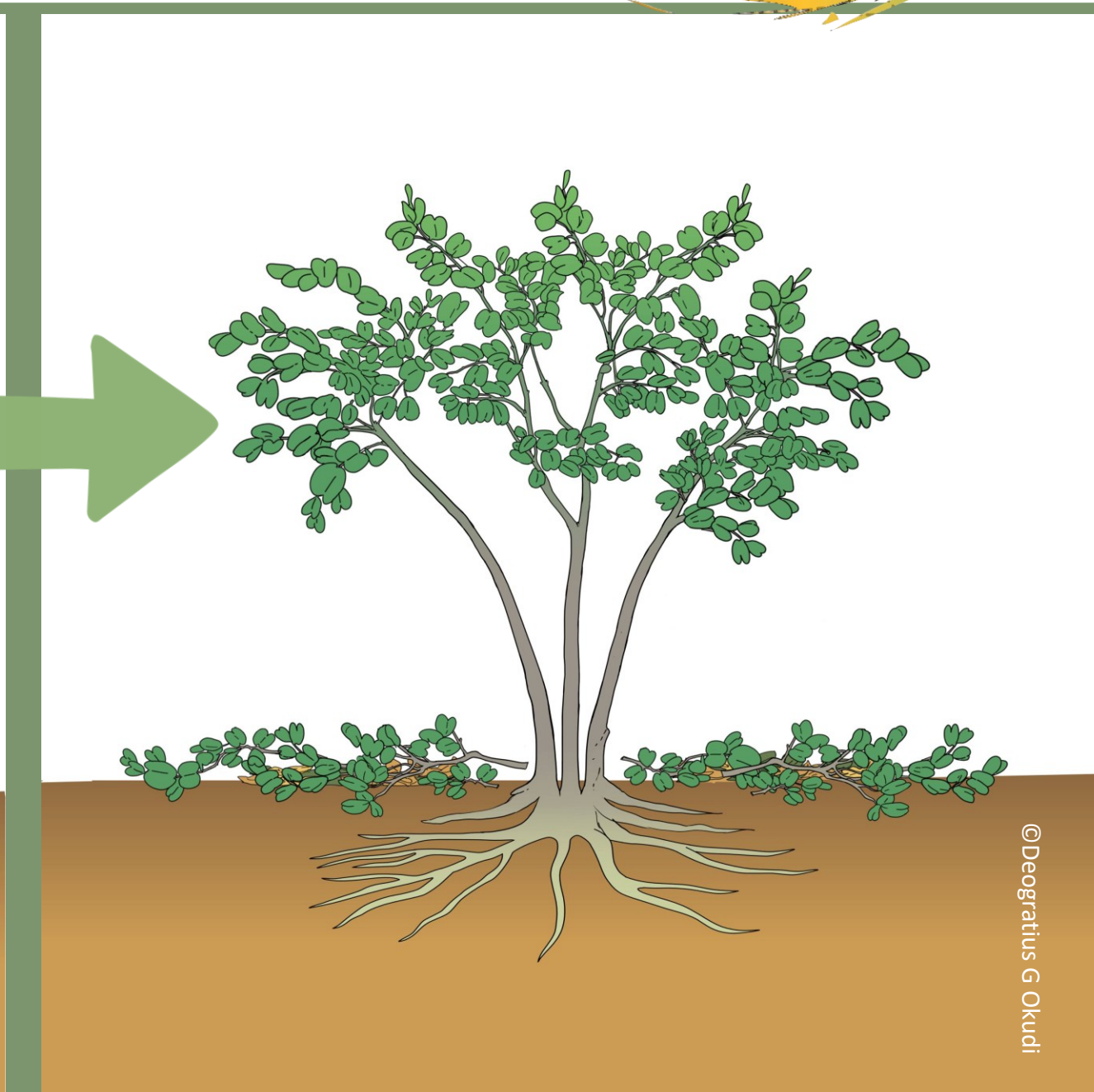
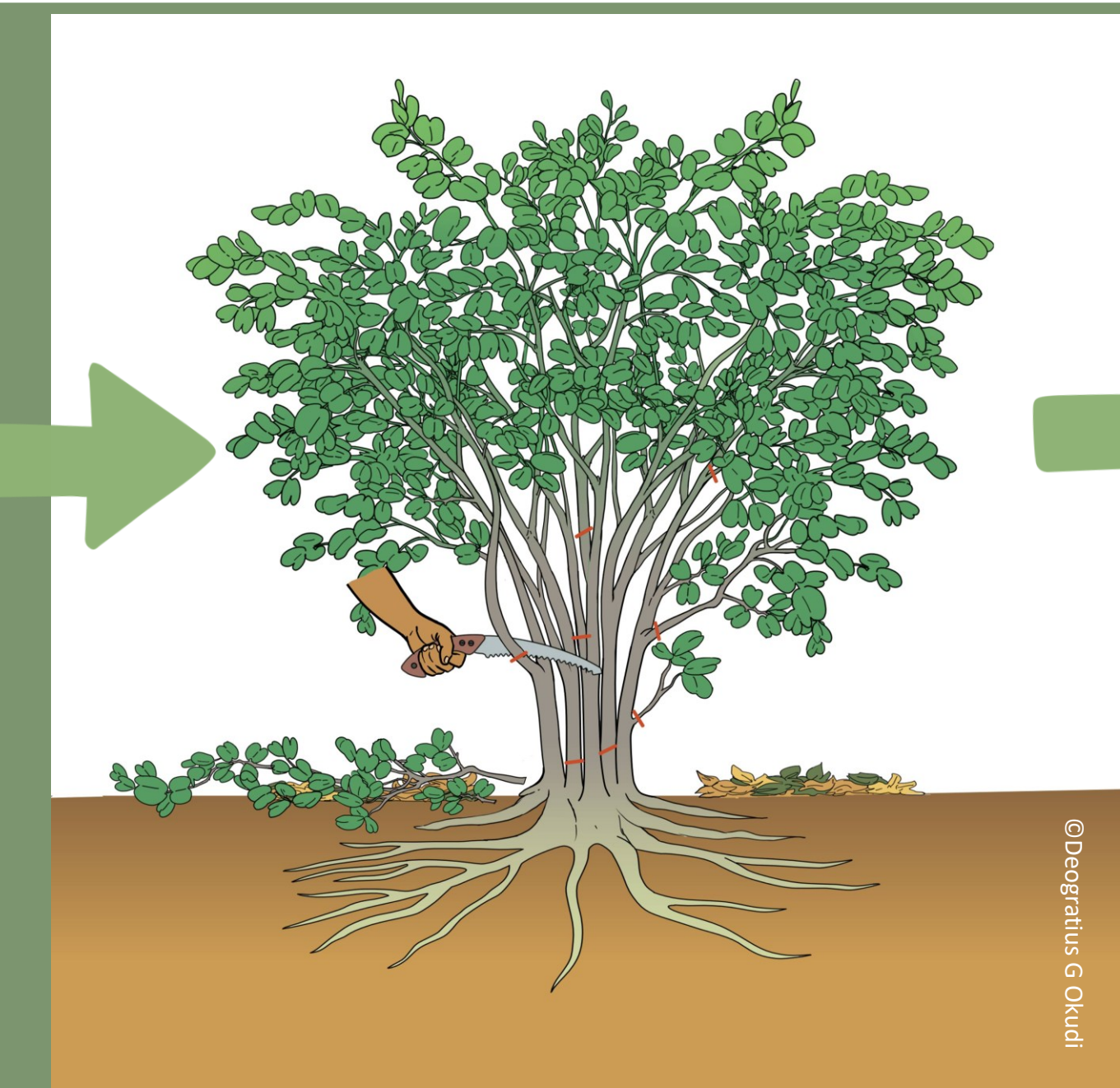
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Increase your crop yield by mulching leaves from *Guiera* and *Piliostigma* shrubs and applying manure



Extensive application of mineral fertilizers over time leads to severe soil erosion.

The regular addition of sufficient organic matter, such as manure or mulch, can sustainably maintain and increase soil fertility.



According to our research, adding manure and mulch from *Guiera* or *Piliostigma* can significantly increase millet, and sorghum yields on a sustainable basis. For example, 2.5 tonnes of mulch can triple crop yields, while 5 tonnes of manure can multiply yields by 8.



Farmer Sokhna Faye from Senegal, achieves good millet yields by combining horse and goat manure with *Guiera* leaves and millet residues.



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.

Complementary scientific reference:
Roessler, 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>