



REGENERATIVE AGRICULTURE FAST FACTS

30% of the world's arable land has become unproductive in the past 40 years due to erosion.

Pimentel, David. "Soil Erosion: A Food and Environmental Threat." *Environment, Development and Sustainability*, vol. 8, no. 1, 2006, pp. 119–137 (page 123)., doi:10.1007/s10668-005-1262-8.

<https://link.springer.com/article/10.1007/s10668-005-1262-8>

20% of global pasture and 73% of global rangeland in the drylands has been degraded.

Kwon, Ho-Young, et al. "Global Estimates of the Impacts of Grassland Degradation on Livestock Productivity from 2001 to 2011." *Economics of Land Degradation and Improvement: A Global Assessment for Sustainable Development*, 2015, pp. 197–214., doi:10.1007/978-3-319-19168-3_8.

https://link.springer.com/chapter/10.1007/978-3-319-19168-3_8

74% of North American dryland has been affected by desertification.

Hilton, Ronald. "The Geography of Desertification." Stanford University, 5 May 2002, http://wais.stanford.edu/Geography/geography_ofdesertification5502.html

At current rates of soil loss, only 60 years of harvest remain before global topsoil is depleted.

"International Year of Soil Conference." Food and Agriculture Organization, 6 July 2015, www.fao.org/soils-2015/events/detail/en/c/338738/

Despite widespread land degradation, global meat and dairy production is projected to increase by at least 158% by 2050.

Kwon, Ho-Young, et al. "Global Estimates of the Impacts of Grassland Degradation on Livestock Productivity from 2001 to 2011." *Economics of Land Degradation and Improvement: A Global Assessment for Sustainable Development*, 2015, pp. 197–214., doi:10.1007/978-3-319-19168-3_8

https://link.springer.com/chapter/10.1007/978-3-319-19168-3_8



Regenerative grazing enhances soil carbon allocation and microbial biomass.

Microbial biomass Carbon was lower by half in excluded (no-grazing) plots vs. grazed plots (0.16 vs. 0.37 mg/g)

There was 22% lower SOC/SONitrogen stock in enclosure compared to grazed plots after 15 years (6.7% vs. 8.5%)

Wilson, Chris H., et al. "Grazing Enhances Belowground Carbon Allocation, Microbial Biomass, and Soil Carbon in a Subtropical Grassland." *Global Change Biology*, vol. 24, no. 7, 2018, pp. 2997–3009., doi:10.1111/gcb.14070
<https://www.deepdyve.com/lp/wiley/grazing-enhances-belowground-carbon-allocation-microbial-biomass-and-T504io4z7N>

Ranches utilizing Holistic Planned Grazing can sequester 3 tons more carbon per hectare per year compared to conventional grazing.

<https://www.sciencedirect.com/science/article/pii/S0167880911000934?via%3Dihub>

<https://www.mdpi.com/2071-1050/7/10/13500>

<https://www.jswnonline.org/content/71/2/156.full.pdf+html>

<https://www.sciencedirect.com/science/article/pii/S0308521X17310338>

Each 1 percent increase in soil organic matter helps soil hold 20,000 gallons more water per acre.

Bryant, Lara. "Organic Matter Can Improve Your Soil's Water Holding Capacity." NRDC, 15 Dec. 2016, <https://www.nrdc.org/experts/lara-bryant/organic-matter-can-improve-your-soils-water-holding-capacity>.

We can become carbon neutral by increasing soil carbon content by just 0.4% a year.

"The 4 per 1000 Initiative in a Few Words." *The 4 per 1000 Initiative in a Few Words* | 4p1000, www.4p1000.org/4-1000-initiative-few-words.

Every tonne of carbon added to the soil removes 3.67 tonnes of carbon dioxide from the atmosphere.

Teague, W.R., et al. "The Role of Ruminants in Reducing Agriculture's Carbon Footprint in North America." *Journal of Soil and Water Conservation*, www.jswnonline.org/content/71/2/156.full.pdf+html.

Properly managed grazing, if applied on 25% of our crop and grasslands, would mitigate the entire carbon footprint of North American agriculture.

Teague, W.R., et al. "The Role of Ruminants in Reducing Agriculture's Carbon Footprint in North America." *Journal of Soil and Water Conservation*, www.jswnonline.org/content/71/2/156.full.pdf+html.

Soil from properly managed grazing operations have been shown to sequester up to 7 tons carbon/hectare/year.

Machmuller, Megan B., et al. "Emerging Land Use Practices Rapidly Increase Soil Organic Matter." *Nature News*, Nature Publishing Group, 30 Apr. 2015, www.nature.com/articles/ncomms7995.

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