



INITIATIVE ON
Livestock and Climate



Breaking the Spell: Debunking common myths about livestock and climate change



WCSJ
2023

Jacobo Arango
12th World Conference
of Science Journalists
Medellín | March 29, 2023

Mith #1

Stop eating meat = the solution to global warming



Mentimeter: 3661 2255

Eliminating animals from U.S. food systems would reduce agricultural emissions by 28%.



U.S. agricultural emissions represent only 9% of national inventory



The reduction in national GHG emissions would actually be 2.6%

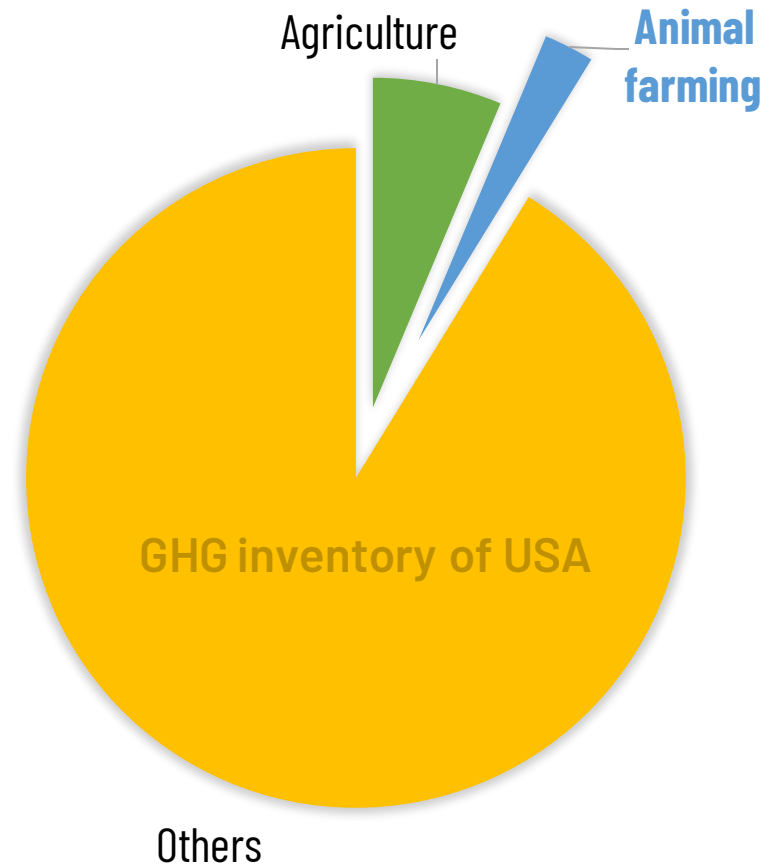
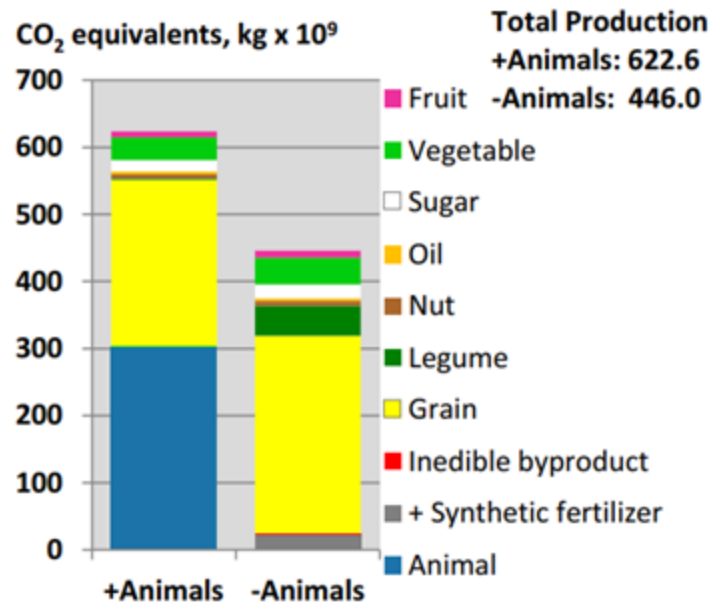


Nutritional and greenhouse gas impacts of removing animals from US agriculture

Robin R. White^{a,1,2} and Mary Beth Hall^{b,1,2}

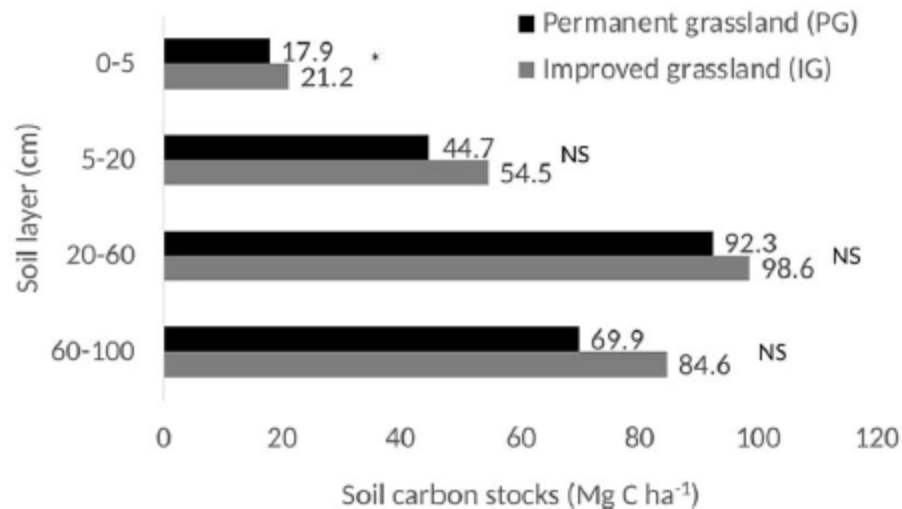
^aDepartment of Animal and Poultry Science, Virginia Tech, Blacksburg, VA 24061; and ^bUS Dairy Forage Research Center, US Department of Agriculture-Agricultural Research Service, Madison, WI 53706

Edited by B. L. Turner, Arizona State University, Tempe, AZ, and approved September 25, 2017 (received for review May 5, 2017)



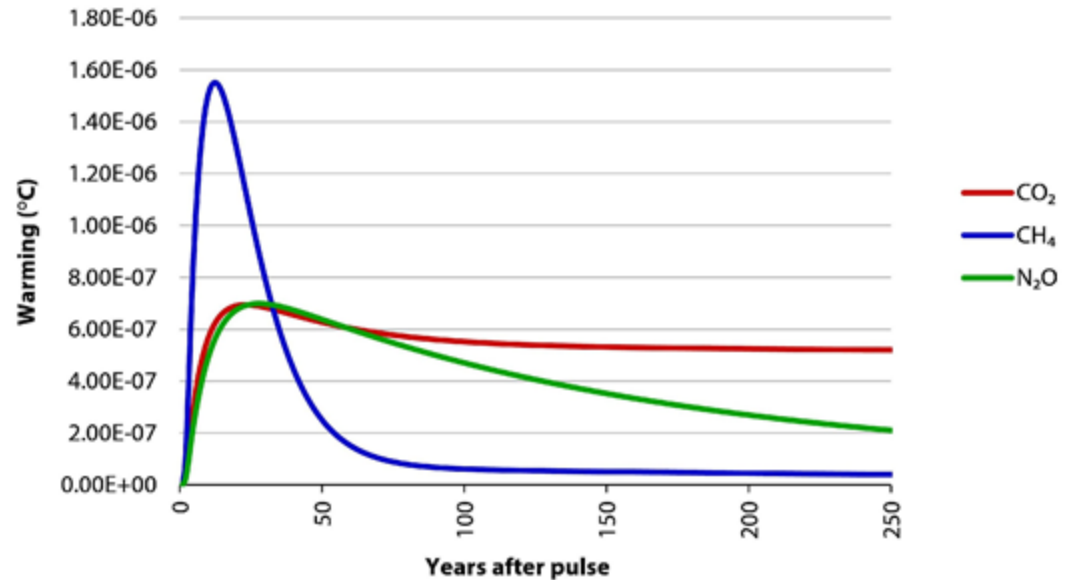
In addition...

As permanent crops, forage pastures have the capacity to sequester carbon in the soil.



Source: Costa Jr. et al. 2022. *Frontiers in climate*

The GHG most emitted by livestock (CH₄) has a shorter lifetime than CO₂ from fossil fuels.



Source: Land use: Policies for a Net Zero UK, 2020.

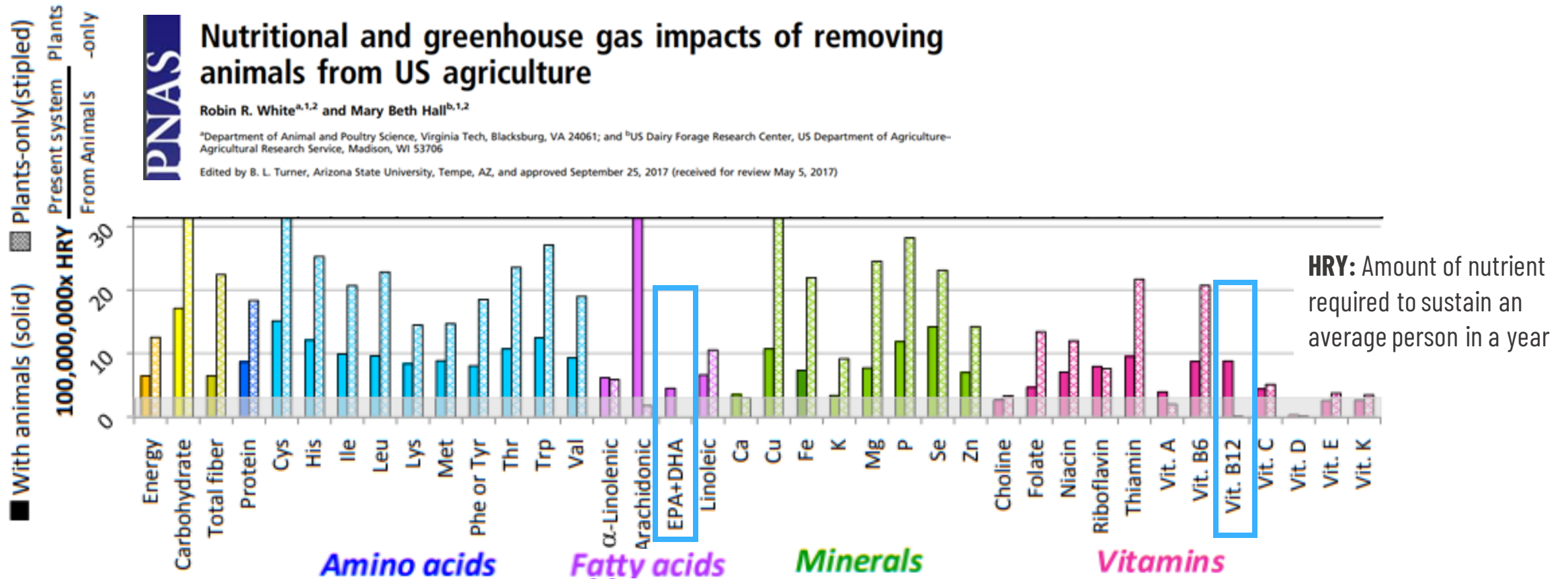
Myth #2

Quality of animal sourced vs. plant based foods



Mentimeter: 3661 2255

- For almost all nutrient groups, **at least twice as much** plant-based food is required to meet the same dietary needs.
- Some nutrients such as Omega 3 (EPA/DHA) and vitamin B12 are only found in foods of animal origin.



Myth #3

Livestock farming has a high water footprint



Mentimeter: 3661 2255



Food item	Water footprint per ton (m ³ /ton)			
	Green	Blue	Grey	Total
Milk	863	86	72	1020
Eggs	2592	244	429	3265
Chicken meat	3545	313	467	4325
Butter	4695	465	393	5553
Pig meat	4907	459	622	5988
Sheep/goat meat	8253	457	53	8763
Bovine meat	14414	550	451	15415

- 80-94% of the water used in livestock comes from rain: Green Water
- **Only 4-8% comes from water bodies** such as rivers, streams, etc.

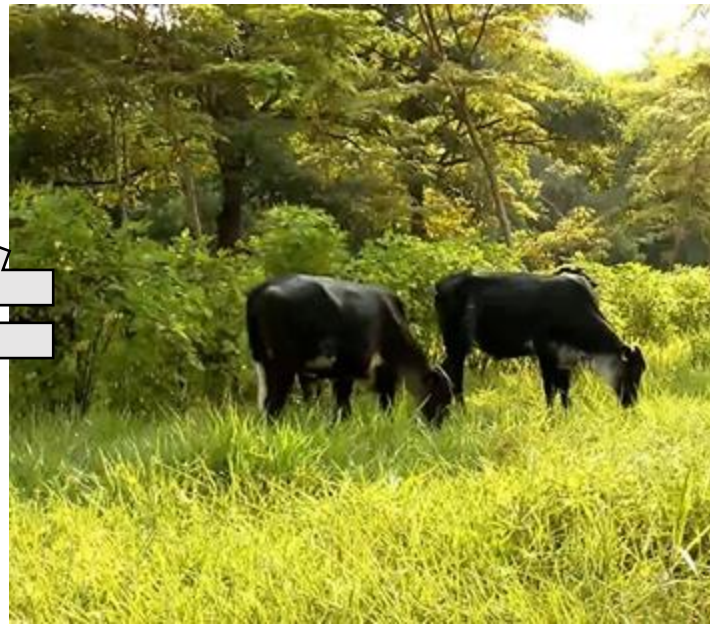
Myth #4

Livestock production = animal mistreatment



Mentimeter: 3661 2255

- Animal welfare depends on farm management practices and regulations in each country.
- Tropical livestock farming is not based on confinement (feedlots) but on free grazing.



Characteristics of Tropical Silvopastoral Systems:

- Free grazing (close to natural social dynamics)
- Trees that provide shade = less thermal stress
- High-quality nutritional forages
- Permanent availability of water = less water stress

Plus:

- Veterinary care
- Quick and clean slaughter



Thanks!



Jacobo Arango

j.arango@cgiar.org

Twitter: Jacobo_ABC