

Global experiences with utilizing manure nutrient contents

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As old as the world ☺



Barley and wheat from farming sites **up to 8000 years old** have levels of heavy nitrogen consistent with **being fertilized by manure.**

<http://news.sciencemag.org/2013/07/researchers-discover-first-use-fertilizer>

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Excreted: ca.70% of dietary N and >65% of dietary P

Nitrogen retention as fraction of the uptake (100%)
(source: GLEAM)



Dairy cattle



Beef cattle



Chicken



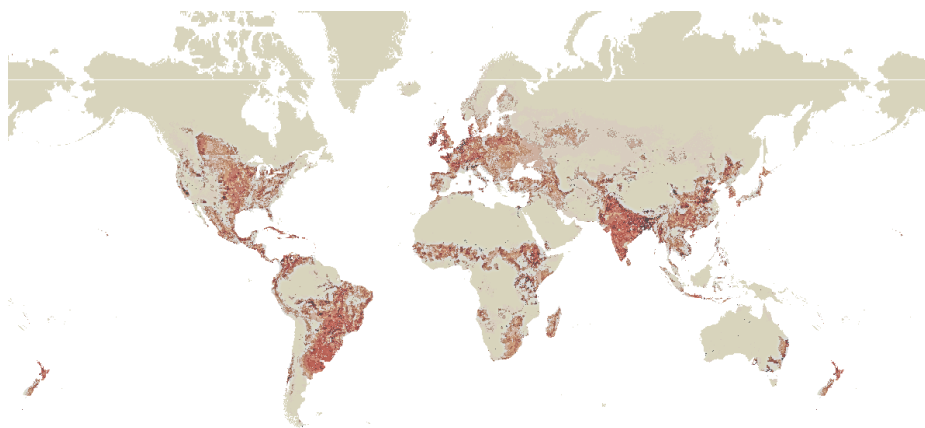
Pigs

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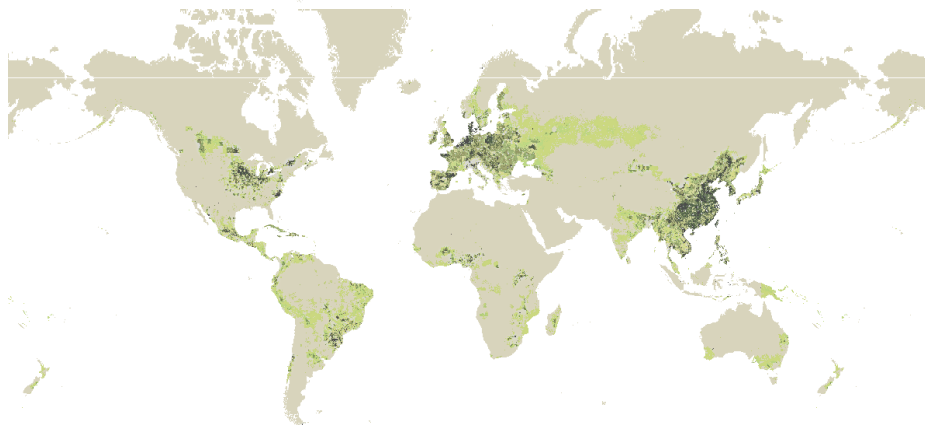


ANIMAL PLANET

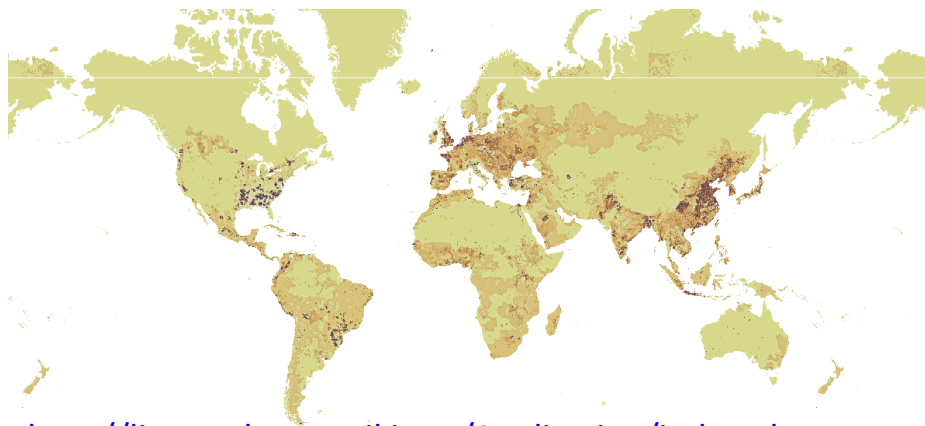
Cattle (2006)



Pigs (2006)



Chicken (2006)



<http://livestock.geo-wiki.org/Application/index.php>

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Asia

- Manure management policies in some countries
- Lack of enforcement
- Variety of farms' types, a lot of small-scale
- Good practices and examples available in some countries, e.g. Thailand, Malaysia, Vietnam

Africa

- Manure management policies in place in many countries
- Still widely used as a fuel and even in some case cattle is used just to produce manure for fuel
- Lack of information on nutrient value to be utilised
- Good examples and research in South Africa and Kenya

Central and Latin America

- Manure policies in place in several states
- Lacking infrastructure for handling
- Management practices vary a lot (economy, traditions)
- Intergrated Manure Management in school curricula!
- Fertilising coffee! ☺

USA (& Canada)

- A lot of research available
- Varies from state to state
- Toolkits and guidelines (EPA), nationally and state-wise
- Quite comparable to EU, both with regards to standard values and application

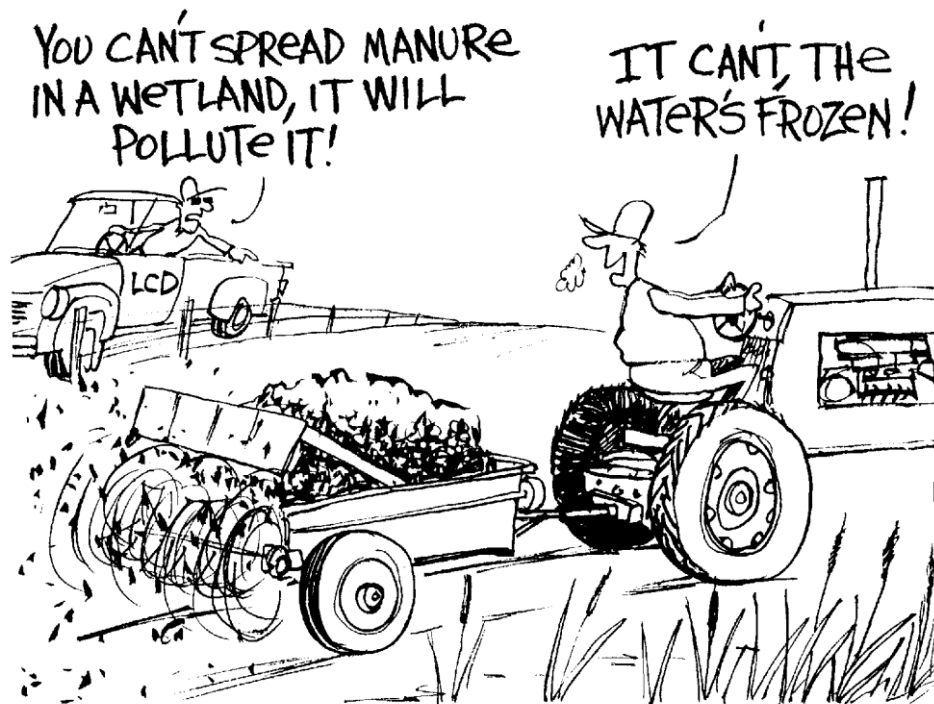
Same sh**t everywhere

Nutrient content

- Climate
- Traditions
- Fodder
- Type/categories of animals

Application

- Climate/season
- Traditions
- Moisture
- Type of soil
- Type of manure



Thank you for your attention!



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