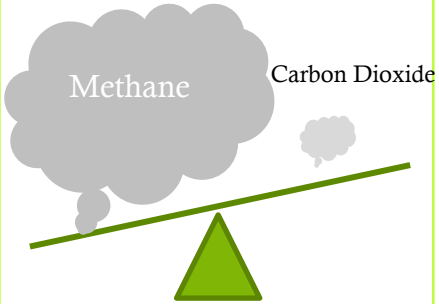
Why Methane Matters

- Methane is a greenhouse gas that traps heat
- 97% of scientists agree that greenhouse gases have contributed to global warming
- Methane is **25 times** more harmful than carbon dioxide[2]



Cow Contributions

Cows have methane producing bacteria in their stomach that release methane every time the cow eats. As a result,

- **26% of methane emissions** in the US are generated by livestock, **90% of which are cows** raised for dairy and meat production[2]
- Emissions from the agriculture industry have **risen 11%** between 1990 and 2013[2]

Sources

1. "Archived Content - Reducing Methane Emissions from Livestock." Agriculture and Agri-Food Canada;Government of Canada. N.p., n.d. Web. 16 Aug. 2016.
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3. Hein, Treena. "Best Manure Management Practices for Reducing Methane Emissions." Best Manure Management Practices for Reducing Methane Emissions. N.p., July 2015. Web. 16 Aug. 2016.
4. Jones, Mandi. "Ways to Reduce Methane Production in Cattle." UNL Beef. N.p., Feb. 2014. Web. 16 Aug. 2016.
5. "Manure Management and Greenhouse Gases - Things You Need To Know." Manure Management and Greenhouse Gases - Things You Need To Know. N.p., n.d. Web. 16 Aug. 2016.

Figure 1 obtained from: http://www.ionacapital.co.uk/images/ADigestion_diagram2(1).gif

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Feel free to contact us with comments or questions

Reducing Your Methane Emissions

Your Guide to Mitigating Global Warming

1. Manage your Manure

The average dairy cow generates **~45 kilograms of manure daily**.[2]

Manure accounts for **10% of U.S. methane emissions**.[2]

Do Not Wait to Apply Manure

"If farmers remove manure earlier in the fall from storage and get it on the fields, they reduce methane emissions by 25% over waiting until late fall"[3]

Clean Your Manure Storage

"If farmers more thoroughly clean their manure storage, it takes longer for methane-producing organisms to grow back, which can reduce emissions by half."[3]

More Tips[5]:

- Avoid adding straw to manure
- Avoid applying manure to wet soil

2. Focus on your Feed

Processing Techniques:

- **Chop, grind, or pellet** your feed. Less digesting time for the cow means increased animal productivity and an up to 75% methane reduction[1]

Grazing Practices:

- **Rotational grazing** increases animal productivity and decreases methane emissions.[4]

Digesting cellulose results in more methane than digesting carbohydrates or unsaturated fat[1]

Food Source	Methane Impact
Grass	↑
Grains & seeds	↓

Adding carbohydrates and healthy fats to livestock diets:

- Supplement with active dried yeast products (6% methane reduction) [1]
- Add oils and oilseeds (such as sunflower or canola seed)[1]

3. Consider an Anaerobic Digester

This biogas recovery system helps reduce methane emissions from livestock manure

By collecting manure in an anaerobic digester you can:

- Generate electricity to power your operation
- Produce animal bedding and fertilizer

How it works:

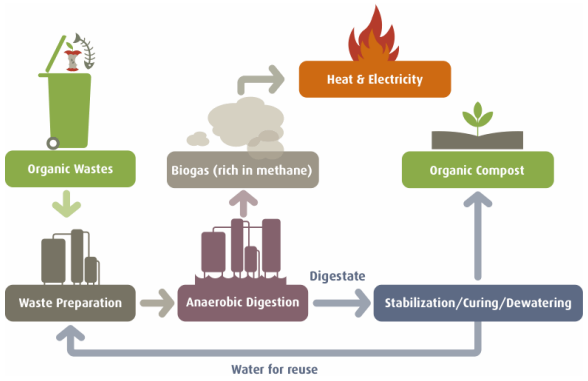

Figure 1

Find out more through the EPA's AgSTAR program at www.epa.gov/agstar