

# How State/Provincial Policy Makers Can Support Producers and Communities: Dispelling Animal Agriculture Myths

**Judith L. Capper, PhD**

*2012 Legislative Agriculture Chairs Summit  
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*World Class. Face to Face.*



Source: Created by Dr. Judith L. Capper, Washington State University, 20112

# The Global Livestock Industry is Under Threat



Sources: <http://culturemap.com/newsdetail/09-03-10-is-sex-in-the-shower-killing-our-water-supply-relax-beef-production-is-a-bigger-culprit/>;  
<http://animals.change.org/blog/view/save-the-animals-save-the-planet-blog-action-day-09-climate-change> PETA (2010)  
<http://www.peta.org/mc/ads/PAMpartsPETA300.jpg> and <http://www.goveg.com/environment-globalwarming.asp>

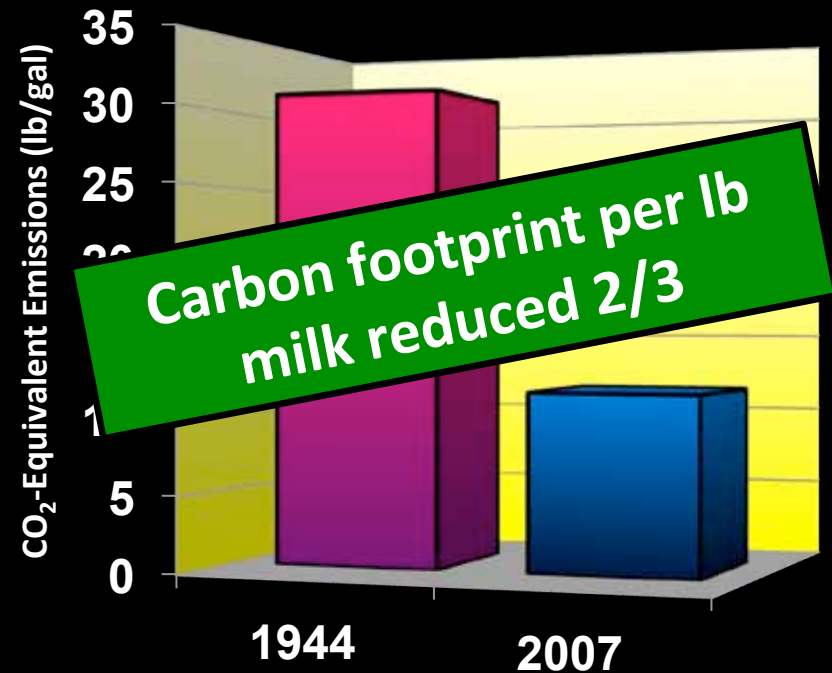
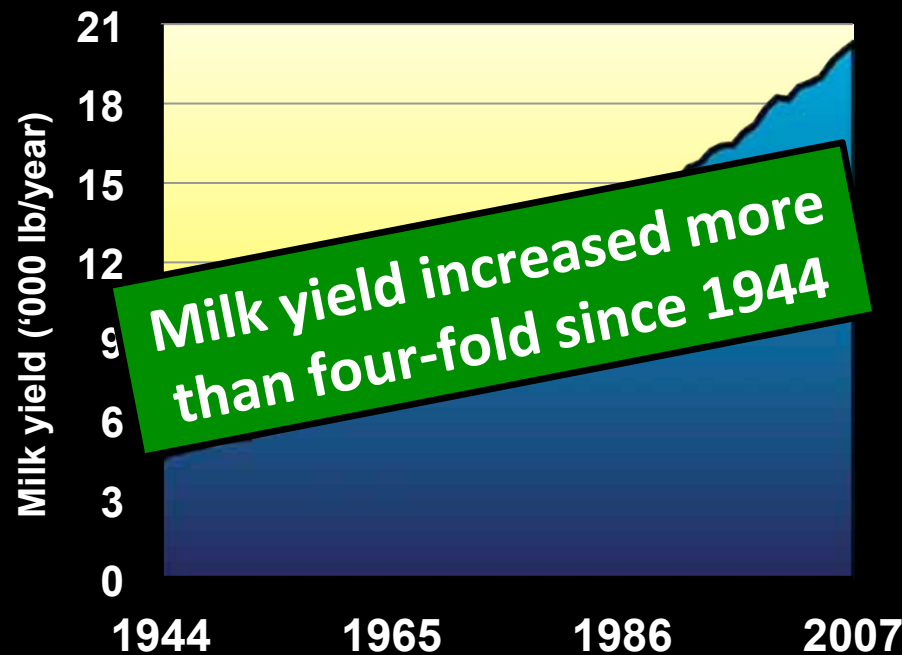


# Animal Agriculture was Better in the “Good Old Days” ...or was it?



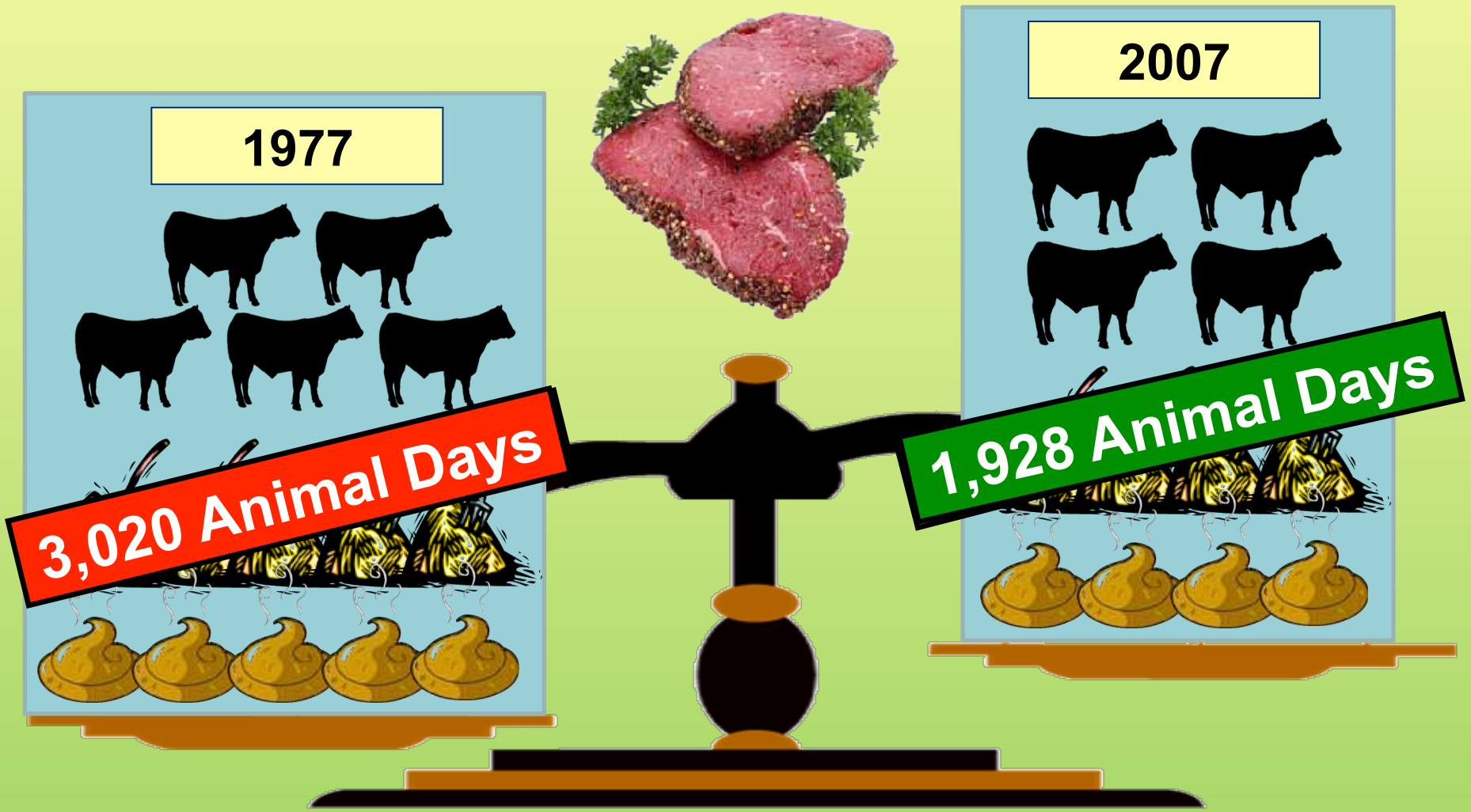
Source: <http://www.valcomnews.com/wp-content/uploads/2010/01/Grangers-Dairy-PHOTO-2.jpg>

# Improved Productivity Reduces the Carbon Footprint of the US Dairy Industry

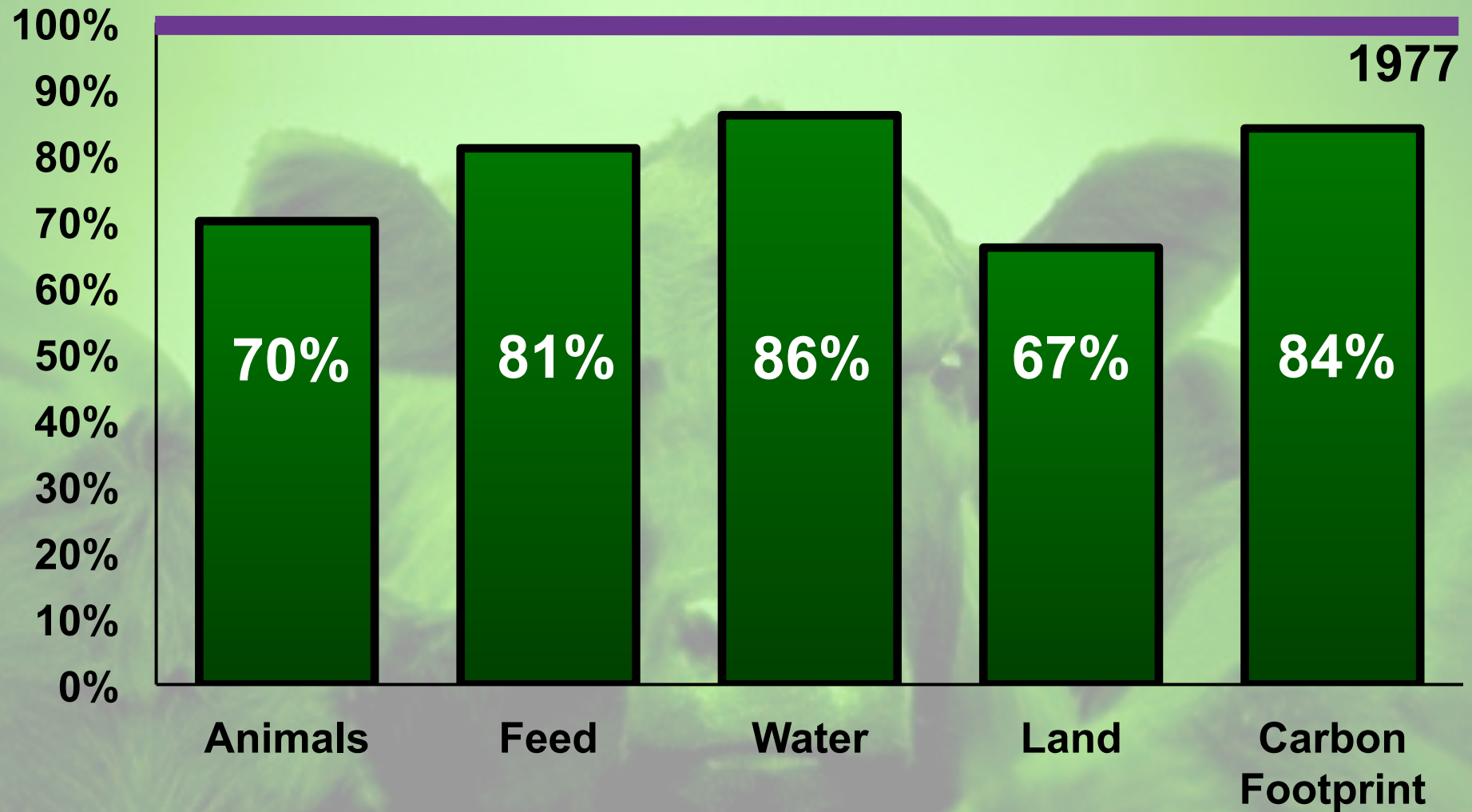


**U.S. Dairy Farm Industry has Reduced its Total Carbon Footprint by 41% Since 1944**

# In 1977, it Took Five Animals to Produce the Same Amount of Beef as Four Animals in 2007



# Environmental Impact of U.S. Beef Production has been Reduced by Improved Productivity



\*All values expressed per lb of beef produced



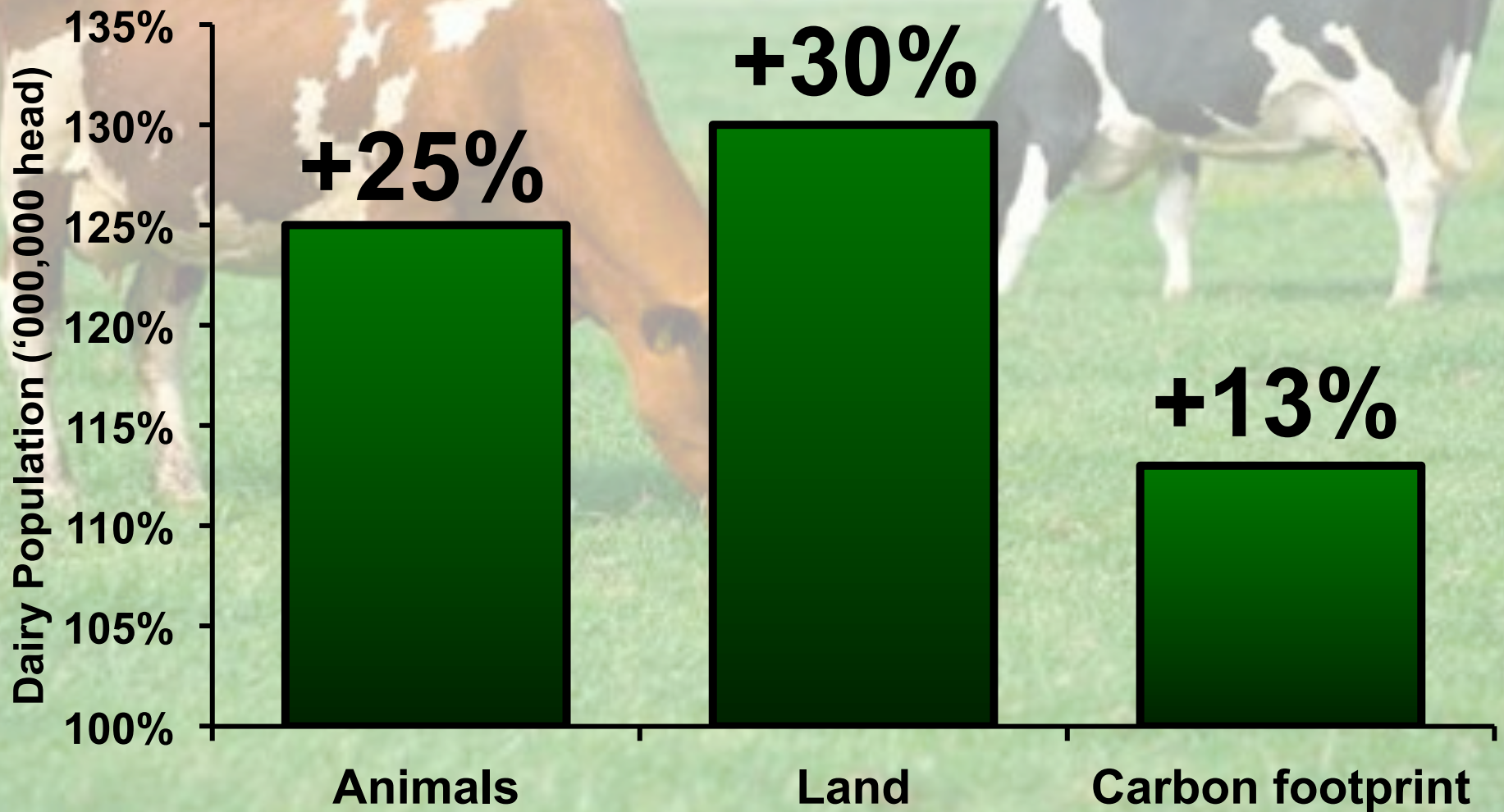
# Conventional Agriculture is Often Demonized

Pesticides, hormones and drugs, oh my!



Drink pure Organic Valley milk.

# Reduced Productivity in Organic Dairy Systems Increases Environmental Impact



Source: Capper et. al. (2008) The environmental impact of recombinant bovine somatotropin (rbST) use in dairy production. *PNAS*



# Grass-fed Beef Saves the Planet...or does it?

OrganicGrassFedBeefInfo.com



## Environmental Benefits

### Organic Grass Fed Beef Environmental Benefits

Friday  
January 6, 2012

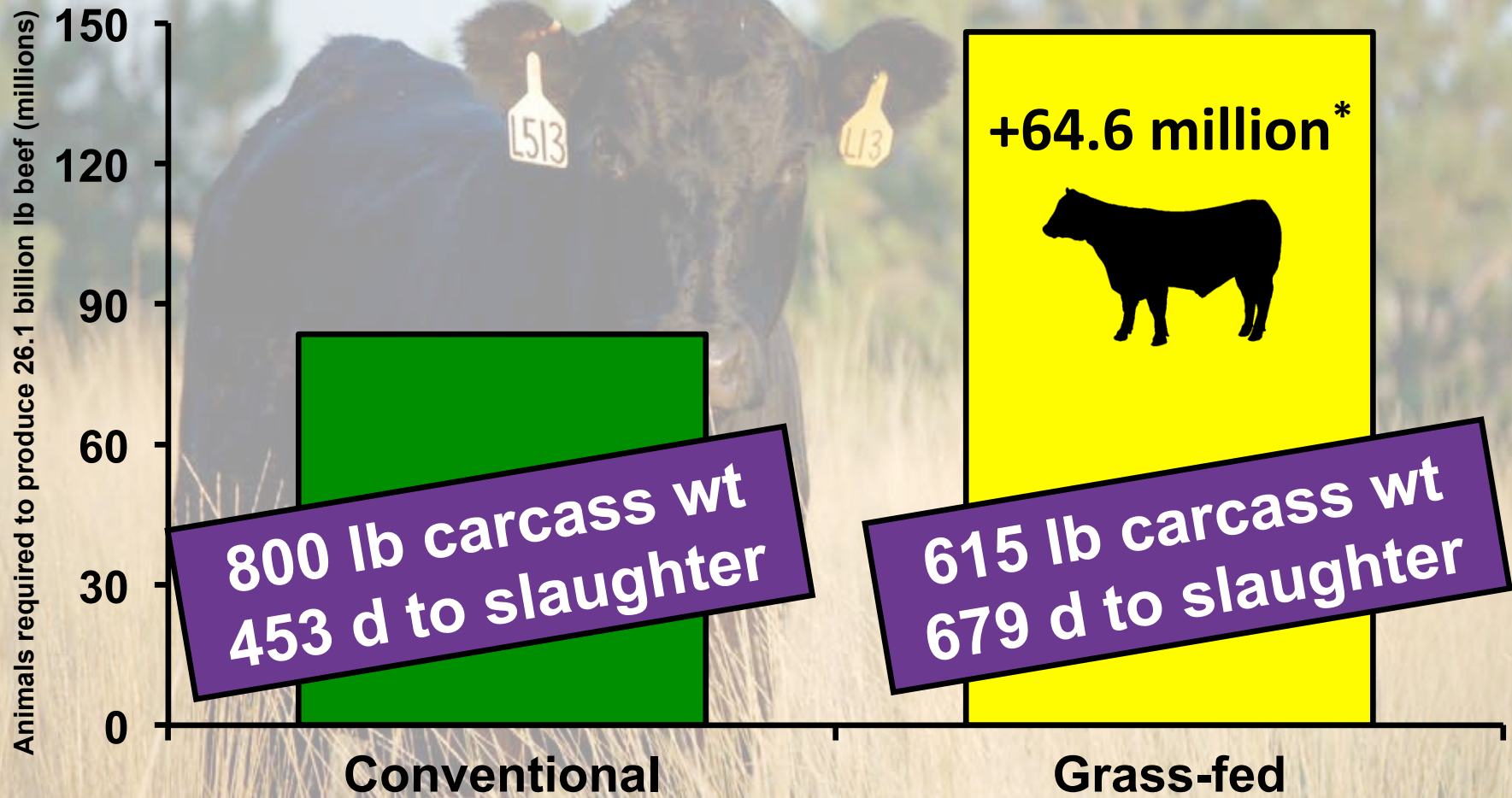
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### Change to Grass-fed-Beef = Save the Environment?

You're thinking how this can be true, right? Well, it is. Not only are there many **health benefits to grass fed or pasture raised beef**, there are also many **environmental benefits** too. Some of the **environmental benefits have a lasting impact on a global scale**, and some of the benefits improve the local conditions. Some of these advantages are obvious, but most are not.

# Grass-finished Beef Production Increases Beef Population Size

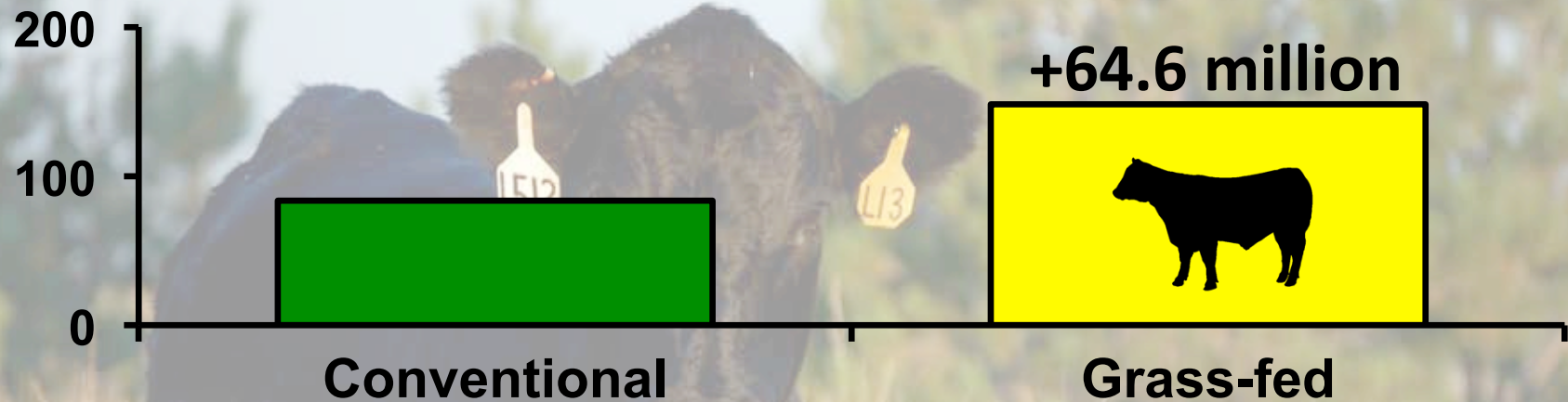


*\*Animal refers to cows, calves, heifers, bulls, stockers and finishing animals*

Source: Adapted from Capper, J. L. (2010). The Environmental Impact of Conventional, Natural and Grass-fed Beef Production Systems. Greenhouse Gases and Animal Agriculture Conference, Banff, Canada



# Grass-Finished Beef Production Increases Resource Use and GHG Emissions



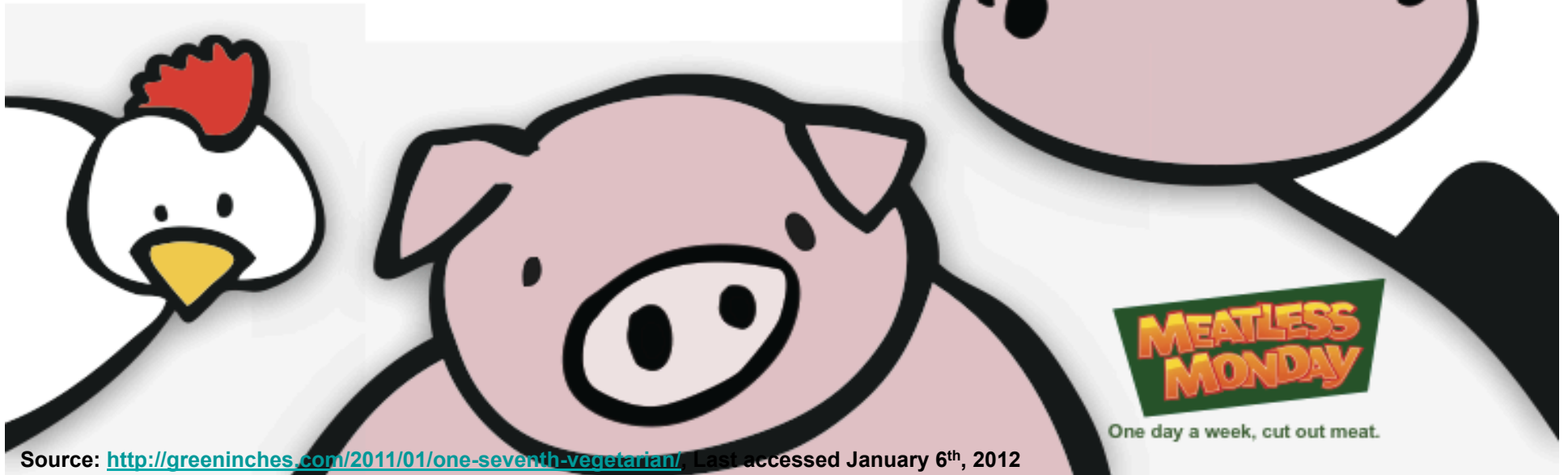
**If all U.S. beef was grass-fed, it would increase:**

- Land use by 131 million acres = 75% land area of Texas
- GHG emissions by 134.5 million t CO<sub>2</sub>-eq
  - Equal to annual emissions from 26.6 million U.S. cars
- Water use by 468 billion gallons
  - Equal to annual usage by 53.1 million U.S. households



# “Meatless Mondays” Are Heavily Promoted

**Now we get  
Mondays off!**



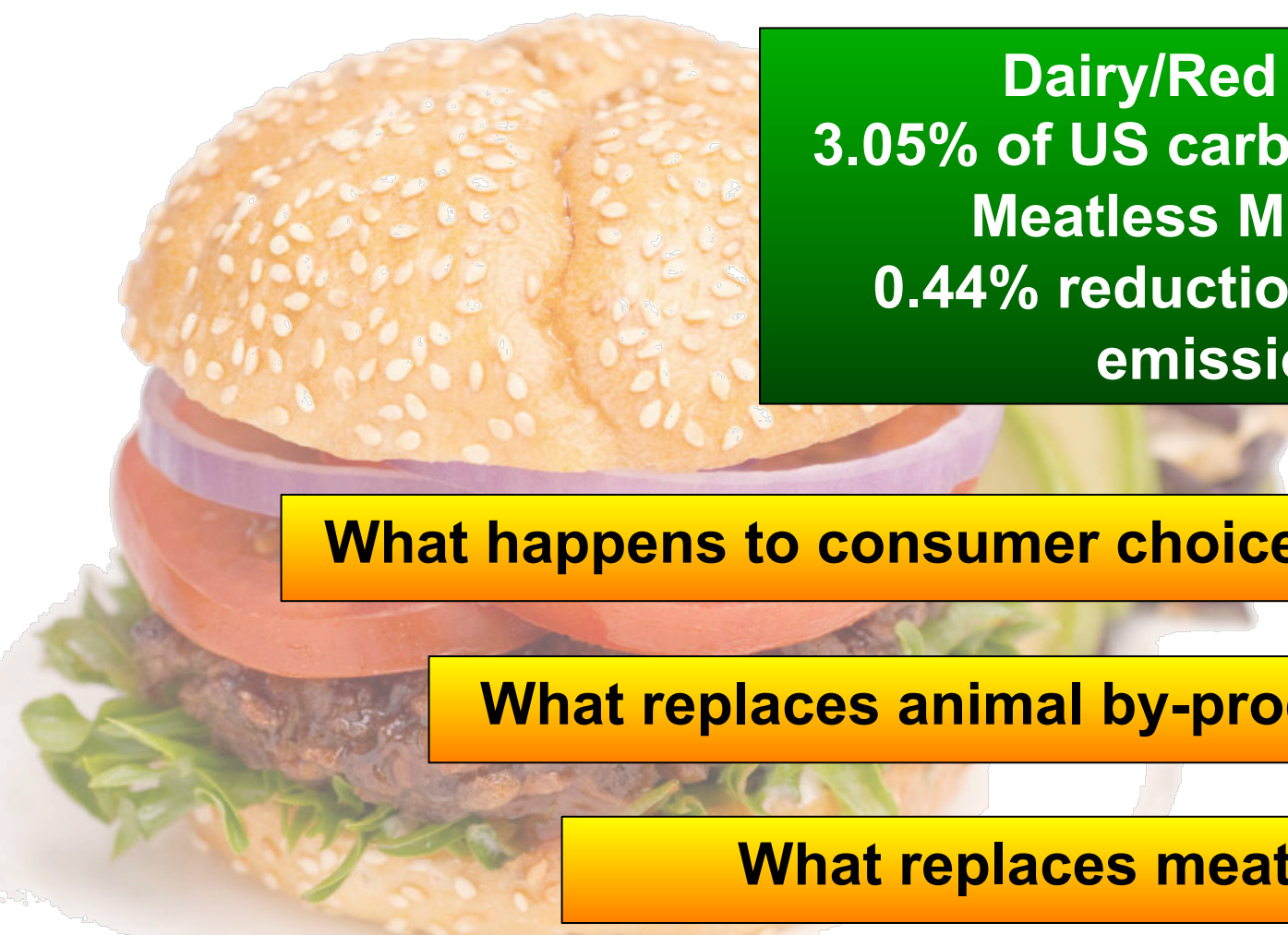
Source: <http://greeninches.com/2011/01/one-seventh-vegetarian/>, Last accessed January 6<sup>th</sup>, 2012

# Carnegie-Mellon Study Claims Meatless Mondays Considerably Reduce Carbon Footprint



***“Shifting less than one day per week’s worth of calories from red meat and dairy products to chicken, fish, eggs, or a vegetable-based diet achieves more GHG reduction than buying all locally sourced food.”***

# Meatless Mondays have Negligible Environmental Impact... and Lead to Further Questions



**Dairy/Red Meat =  
3.05% of US carbon emissions  
Meatless Monday =  
0.44% reduction in carbon  
emissions**

**What happens to consumer choice?**

**What replaces animal by-products?**

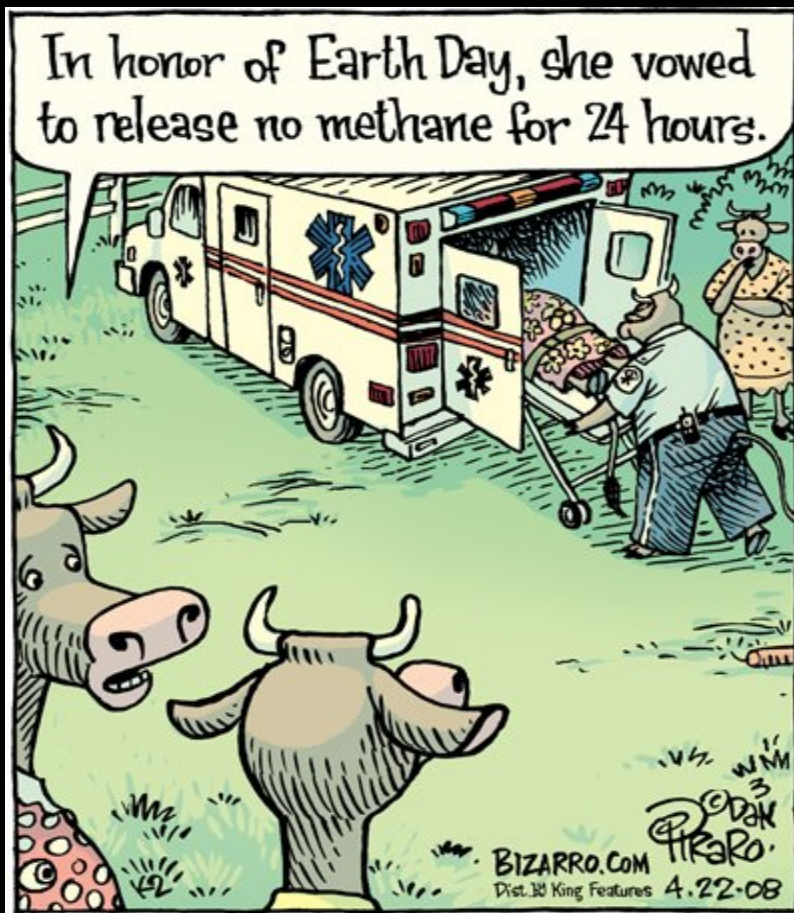
**What replaces meat/dairy?**



# Conclusions

- ✓ **All production systems have a valid niche, yet the consumer is often misled as to the relative environmental impacts of different systems**
- ✓ **Improving productivity is a key factor in mitigating environmental impact**
- ✓ **Producers must be encouraged to improve productivity in order to maintain sustainability**
- ✓ **Environmental impact must be assessed on a scientific rather than a “touchy-feely” basis**

# Thank you!



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