

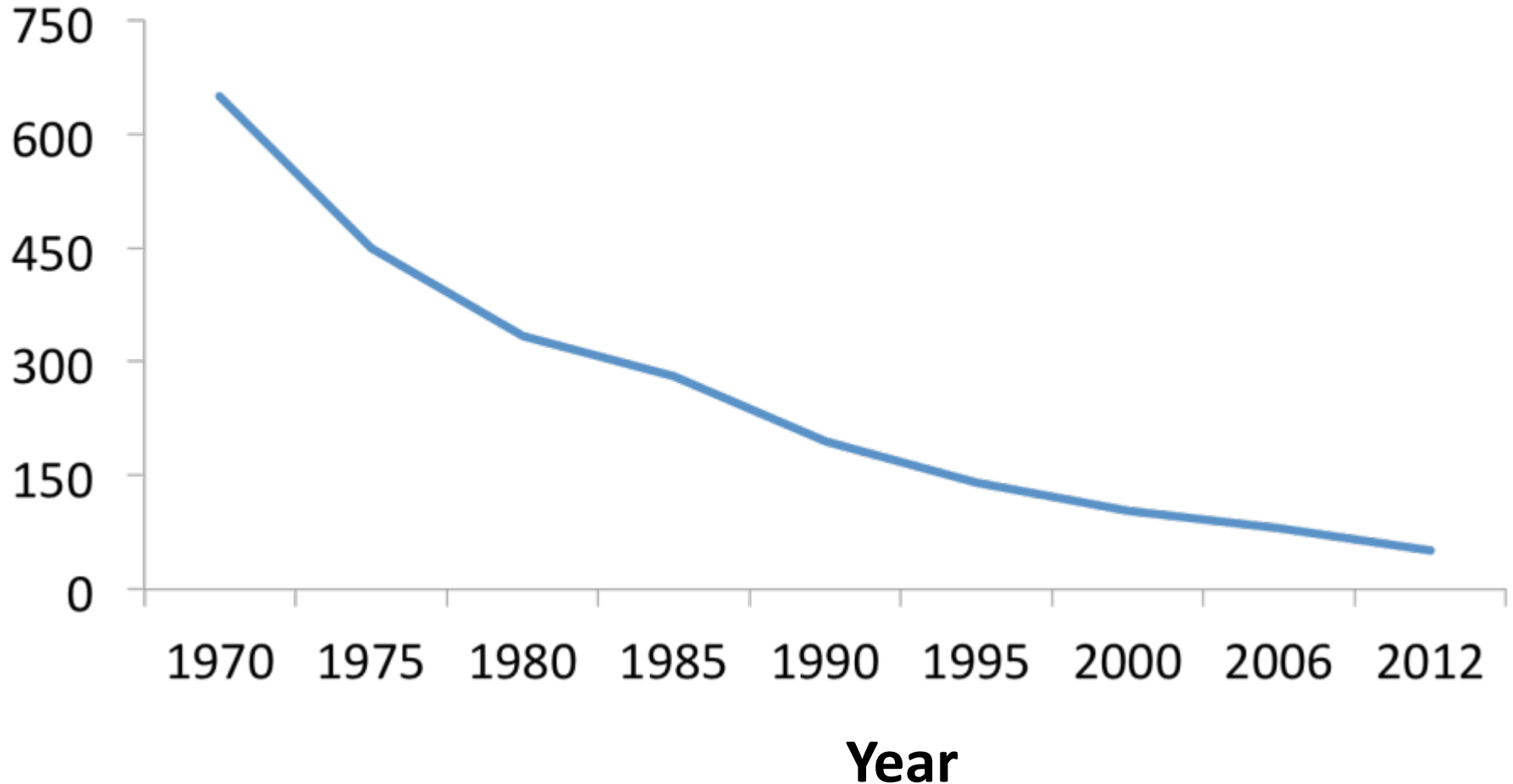
# Farm Size and Animal Welfare

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Dan Weary

# The changing face of the dairy farm

**No. of dairy farms in the U.S. (1,000s)**





# Factory Farming

For the animals. For the people. For the planet.

[www.CarryAllSticker.com](http://www.CarryAllSticker.com)

NO MEGA-DAIRY

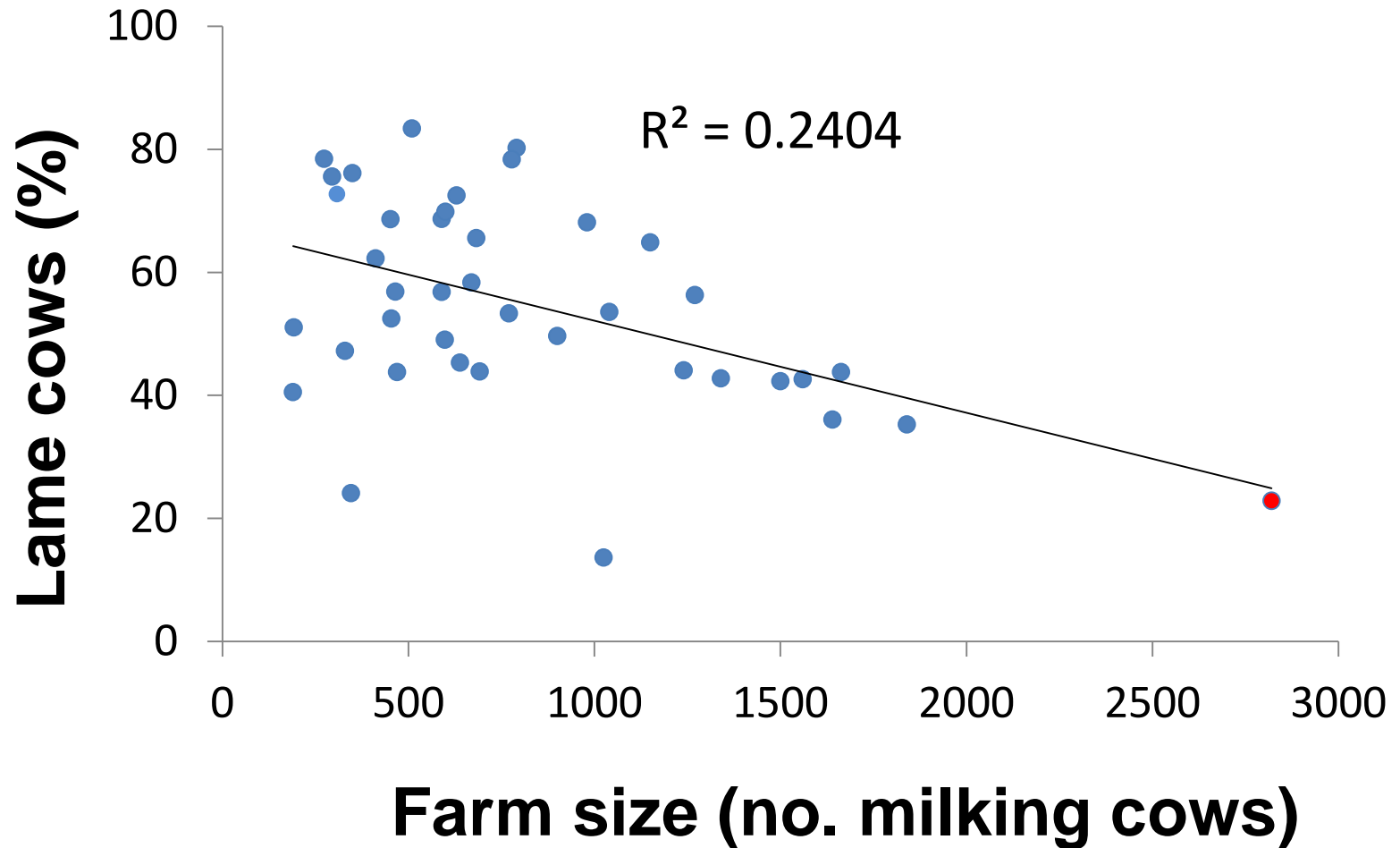
HEALTH ISSUES BARN NEWS AIR POLLUTION  
UNIVERSITY OF IOWA  
HEALTH ASSOCIATION PUBLIC HEALTH ASS  
[www.cphd.org](http://www.cphd.org) [www.cdc.gov](http://www.cdc.gov)  
[www.ehr.scu.iowe.edu](http://www.ehr.scu.iowe.edu)  
WATER POLLUTION  
[www.iowapolicyproject.org](http://www.iowapolicyproject.org)  
[www.fopix.net](http://www.fopix.net)

NO  
CAFO.



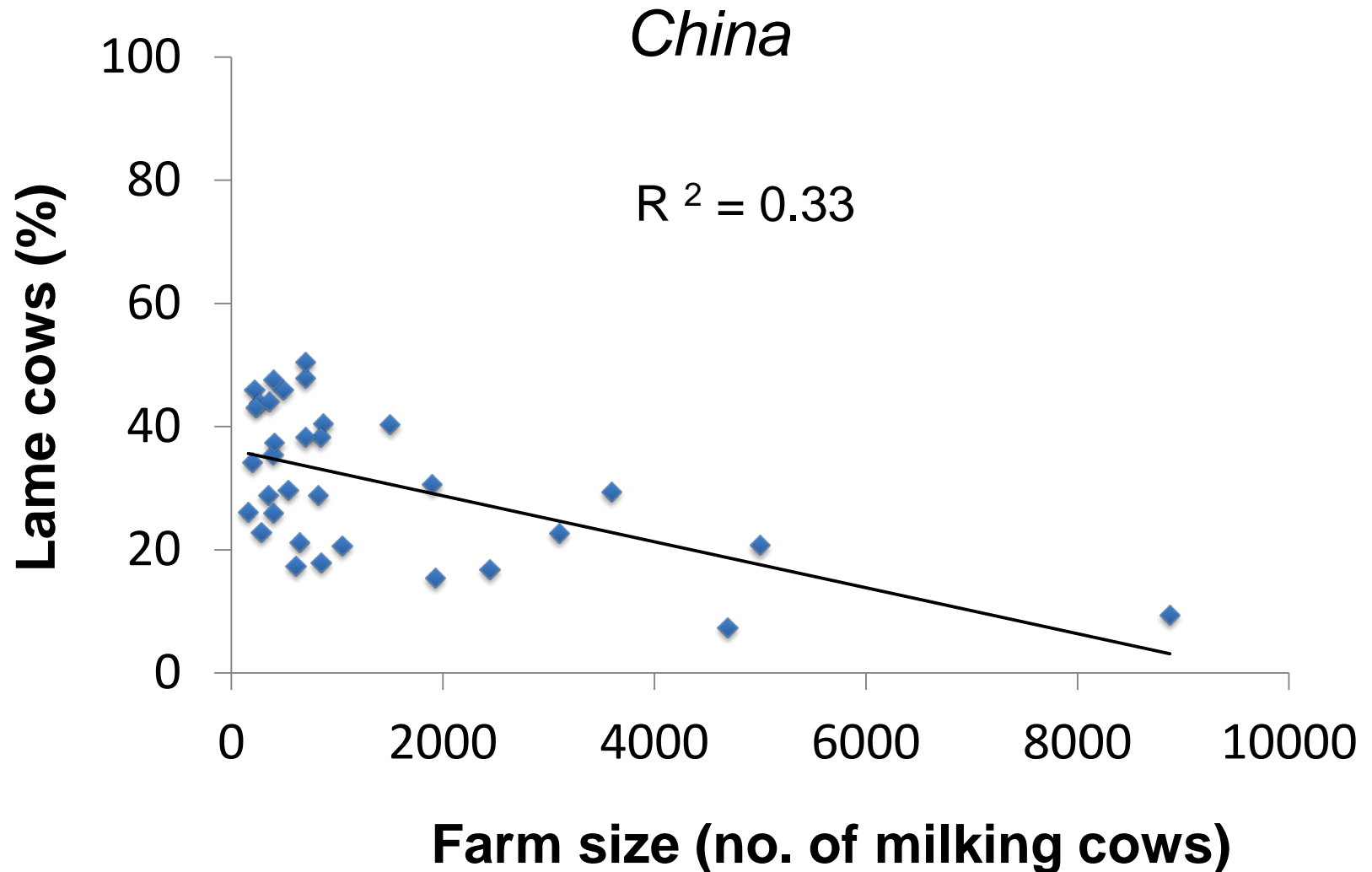
# Lameness in relation to dairy farm size?

*New York, Pennsylvania and Vermont*





# Lameness in relation to dairy farm size?



# Welfare risks associated with larger farms:

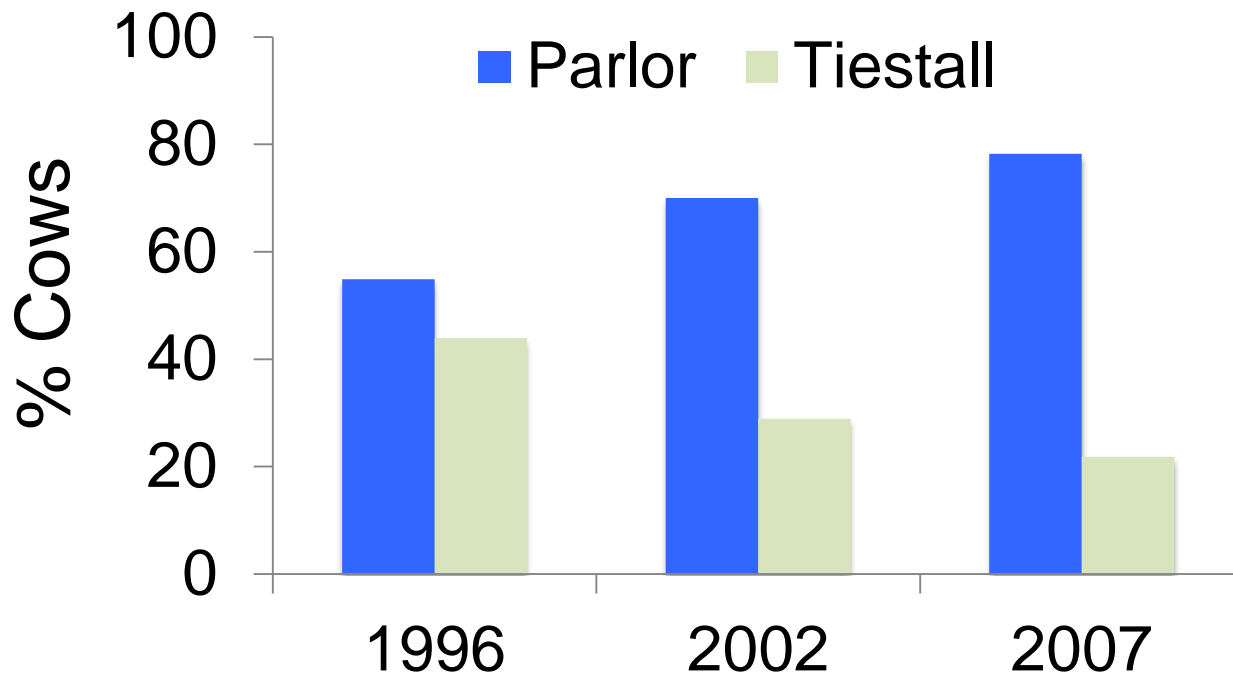
- Technologies may harm animals
- Standard of care may decline
- Beneficial management practices may become impractical







# Changes in number of cows in tie-stalls versus loose housing on US dairy farms (1996-2007)



# Welfare risks associated with larger farms:

- Technologies may harm animals
- Standard of care may decline
- Beneficial practices may become impractical

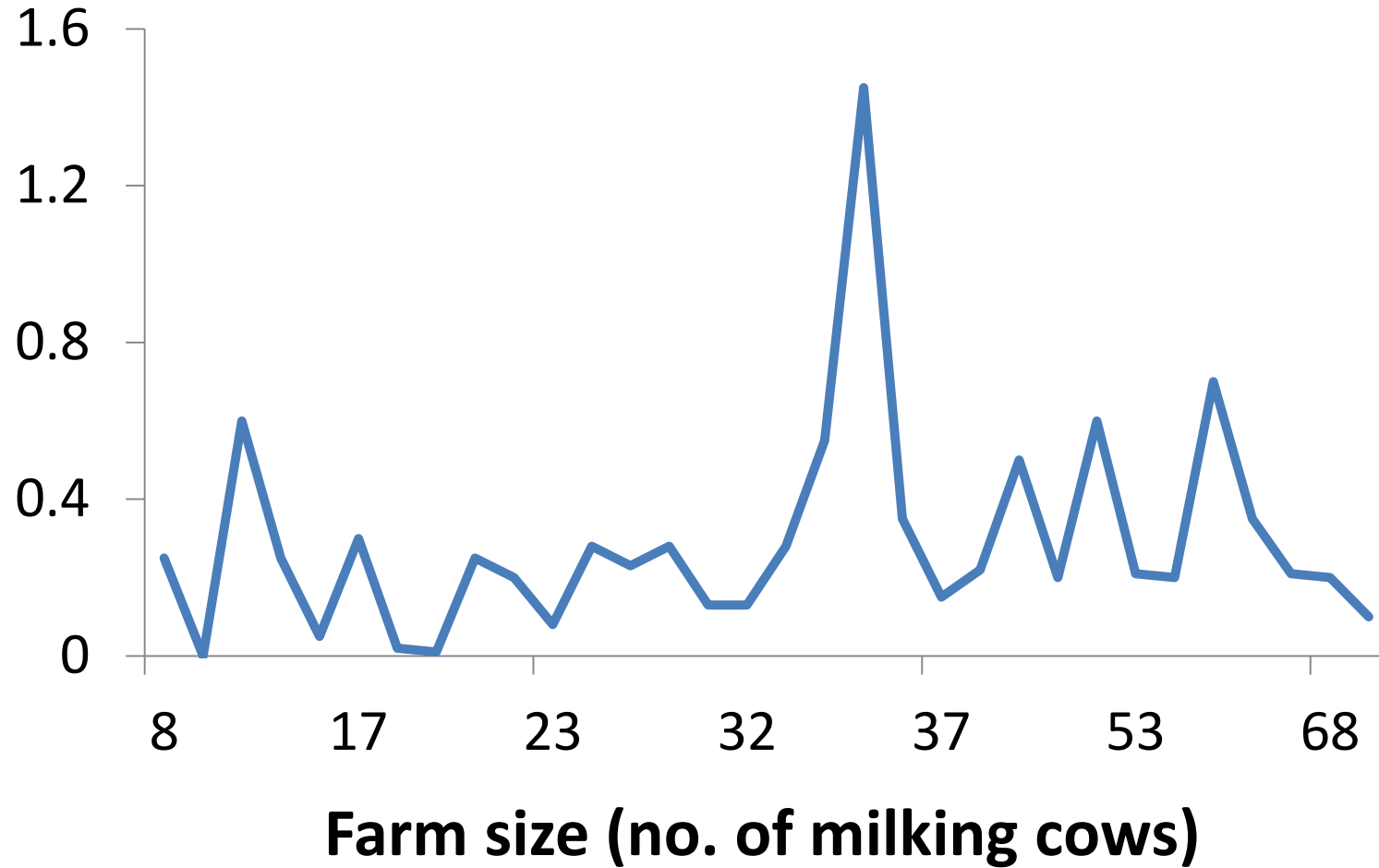








## Approach distance (m)





NOVUS

NOVUS  
NEW BIRTH PROJECT

4621

3446

<b>Management Practice</b>	<b>&lt;100</b>	<b>100-499</b>	<b>≥500</b>
Separate Dry/Mat. Area	52%	81%	90%
Scoring system dystocia	35%	43%	58%
Mean time to 1 <sup>st</sup> colostrum	3.4hrs	3.3hrs	2.8hrs
% test IgG/L	8%	20%	45%
% monitor serum proteins	1%	2%	15%
Off-site heifer rearing	5%	16%	46%
Dehorned causing bleeding	43%	44%	19%

**Source: USDA-NAHMS 2007**

# Professionalism?

Larger farms are more likely to:

- *Have specialized staff and training*
- *Formal SOPs*
- *Performance incentives*

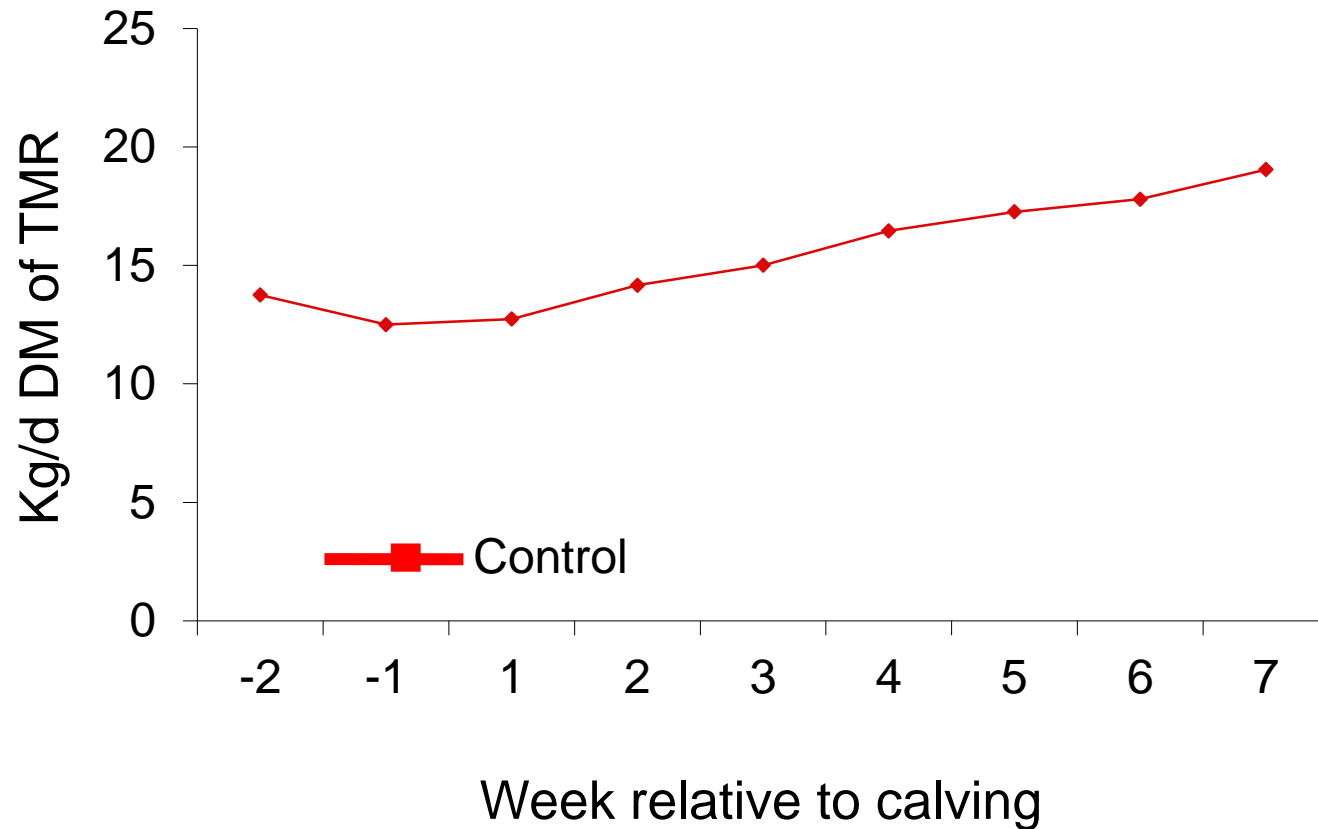
# Welfare risks associated with larger farms:

- Technologies may harm animals
- Standard of care may decline
- **Beneficial practices may become impractical**

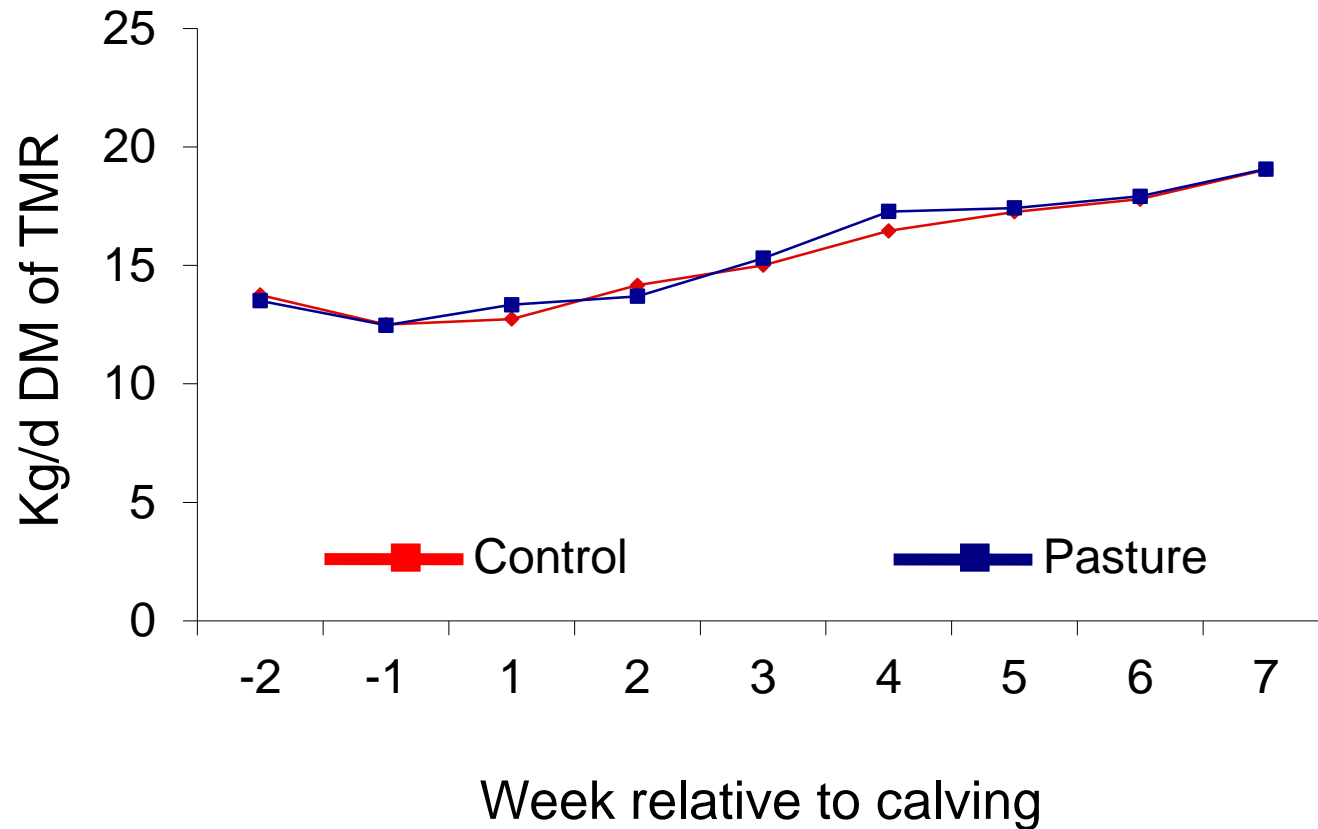
# Access to pasture



# Partial access to pasture



# Partial access to pasture



# Welfare risks associated with larger farms:

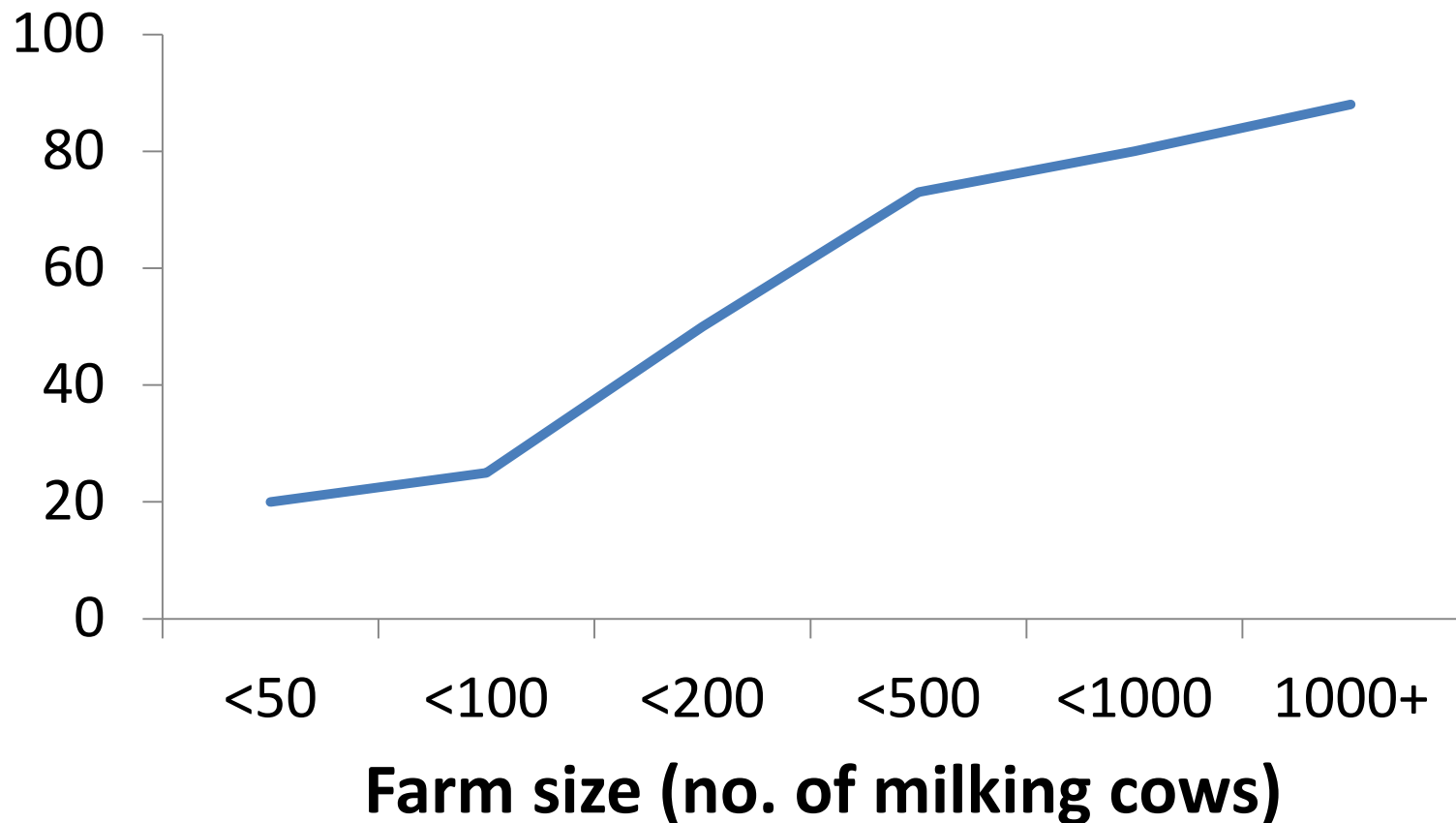
- Technologies may harm animals
- Standard of care may decline
- Certain beneficial management practices may become impractical

# Welfare risks associated with *unprofitable* farms?

*“...large-scale production is not in itself an explanatory factor in relation to animal neglect. Instead, the analysis finds that animal neglect is embedded in a complex network of other problems in agriculture. Farmers who have the highest risk of being convicted of animal neglect are more likely to be troubled by both economic and psychiatric problems.”*

# Welfare risks associated with *unprofitable* farms?

**% of farms that are profitable**





*Peasants Bringing Home a Calf Born in the Fields, 1864, Jean-François Millet*

J.F. Millet

# Conclusions:

- Farms are becoming larger – create solutions to improve the lives of animals on these farms
- Large farms use data to make decisions and preferentially benefit from expensive technology that provide data
- Large farms benefit from professional management that reduces welfare risks
- Larger farms are more likely to be profitable, likely also reducing risks