



Critical Thinking about the Video

'COWSPIRACY'

Teacher's Guide

About Agriculture in the Classroom-Manitoba

Agriculture in the Classroom-Manitoba Inc. (AIRC-M) encourages Manitoba students to develop critical thinking skills related to agriculture, food, bioproducts and life sciences. Working with commodity and industry-related organizations, AIRC-M's programming, events and services will further develop future decision makers and entrepreneurs.

Critical Thinking about the video "Cowspiracy" Teacher's Guide

Here is an accurate, balanced and current list Agriculture in the Classroom-Manitoba's Curriculum Specialist compiled to offer an alternative view to some of the topics discussed in Cowspiracy.

If you are planning to show the movie "Cowspiracy" to your students then here are some resources to help promote critical thinking skills in your students:

- I. Lesson plan
- II. Curriculum connections
- III. Background information for you.
- IV. Resources which will provide alternative views for your students to consider.
- V. Classroom activity sheets

I. Lesson Plan

[Teacher's Guide](#)

Part 1 – Reflecting on 'Cowspiracy'

- After the students have watched 'Cowspiracy' have them complete the worksheet - Reflections on 'Cowspiracy'.
- Then in small groups or as a class have students share their answers and discuss their reasons for their choices.

Part 2 – Considering another Viewpoint

- Have students watch 'Defending Beef', Nicolette Niman's keynote at Artisans of the Grasslands conference.
- Have students complete the worksheet - Considering another Viewpoint.
- Then in small groups or as a class have students discuss their answers and give support for their opinions.

II. Curriculum Connections

Grade 10 Geography – Food from the Land unit

KL-023 Describe the impact of various agricultural practices on the physical environment.

Examples: soil erosion, water quality, soil fertility...

KG-037 Give examples of the potential impact of climate change on food production.

VL-005 Respect the Earth as a complex environment in which humans have important responsibilities.

VL-006 Be willing to consider the environmental consequences of their food choices.

VP-010 Be willing to consider the economic and political influence of their food choices.

Examples: food fashions, food aid, food shortages...

S-103 Promote actions that reflect principles of environmental stewardship and sustainability.

S-107 Make decisions that reflect social responsibility.

S-200 Select information from a variety of oral, visual, material, print, or electronic sources, including primary and secondary.

S-301 Consider the context of events, accounts, ideas and interpretations.

S-302 Draw conclusions and make decisions based on research and various types of evidence.

S-303 Reconsider personal assumptions based on new information and ideas.

S-305 Compare diverse perspectives and interpretations in the media and other information sources.

S-400 Listen to others to understand their perspectives.



III. Background Information

The Statistics Used in 'Cowspiracy':

1) 18%

UN Food and Agriculture Organization (FAO) 2006 study, Livestock's Long Shadow contained the statistic that meat production was responsible for 18% of global greenhouse gas emissions. The UN International Panel on Climate Change (IPCC) transport report contained the statistic that transport was responsible for 13% of global greenhouse gas emissions.

The FAO admitted that the Livestock report and the Transport report could not be compared because while the Livestock report had been calculated by adding all greenhouse-gas emissions associated with meat production, including fertilizer production, land clearance, methane emissions and vehicle use on farms etc. the Transport report only used tailpipe emissions.

'UN admits flaw in report on meat and climate change' By Alastair Jamieson, Telegraph March 24, 2010: <http://www.telegraph.co.uk/news/earth/environment/climatechange/7509978/UN-admits-flaw-in-report-on-meat-and-climate-change.html>

The primary error made was that the Food and Agriculture Organization (FAO) reported **only tail-pipe emissions from the transportation sector directly from the IPCC**, not life cycle emissions of that same sector. The FAO created life-cycle analysis of all livestock animals in their report.

For a more detailed discussion on why comparing the UN's 2006 Livestock and Transport studies is like comparing basketballs to apples please read this article by Stephen Zwick, How accurate is the movie Cowspiracy? Comparing Apples to Basketballs on Quora <https://www.quora.com/How-accurate-is-the-movie-Cowspiracy>

For a critical analysis of the 2006 report, 'Livestock's Long Shadow' please read this fact sheet from the Cattlemen's Beef Board and National Cattlemen's Beef Association of the USA http://www.explorebeef.org/cmdocs/explorebeef/factsheet_livestockslongshadow.pdf

The FAO released an updated Livestock report in 2013, 'Tackling Climate Change through Livestock', which placed total global greenhouse gas emissions from livestock at 14.5%.

The following are links to FAO report information:

- 'Livestock's Long Shadow', 2006 summary:
<http://www.europarl.europa.eu/climatechange/doc/FAO%20report%20executive%20summary.pdf>
- 'Tackling Climate Change through Livestock', GHG emissions by livestock, 2013 Key facts and findings:
<http://www.fao.org/news/story/en/item/197623/icode/>
- FAO News Article, "Major cuts of greenhouse gas emissions from livestock within reach."
<http://www.fao.org/news/story/en/item/197608/icode/>
- FAO Publication, "Tackling climate change through livestock"
http://www.fao.org/ag/againfo/resources/en/publications/tackling_climate_change/index.htm

2) 51%

World Watch Report 2009 by Robert Goodland and Jeff Anhang contained the statistic that meat production was responsible for 51% of global greenhouse gas emissions.

World Watch Livestock and Climate Change report at <http://www.worldwatch.org/files/pdf/Livestock%20and%20Climate%20Change.pdf>

World Watch Report 2009 is a single, non-peer reviewed article whose findings are generally not supported by the larger global scientific community. For rebuttals of this report see

- [Livestock and greenhouse gas emissions: The importance of getting the numbers right](#)
- [Does agriculture really account for 51% of greenhouse gas emissions? Quora](#)



Techniques of Persuasion used in Cowspiracy

You may want to have your students discuss the effectiveness vs the usefulness of some of the techniques of persuasion used by the film, "Cowspiracy".

1. Offers one simplistic absolute solution to a complex global issue
2. Use of reductionism - the effort to over simplify complex subjects to the point where discussion is void of sufficient detail to fully appreciate said subject.
3. Uses the premise of a conspiracy theory
4. Ambushes or sets people up whom the filmmaker disagrees with and then makes them look foolish in the documentary
5. Vilifies and dismisses persons who don't agree with the filmmakers' position
6. Uses statistics as fact with little or no nuance or balance or consensus needed to support the statistics used

IV. Resources with Alternative Viewpoints to that of 'Cowspiracy'

1. Videos

'Defending Beef', Nicolette Niman's keynote at Artisans of the Grasslands conference November 30, 2015, (34:48):
<https://www.youtube.com/watch?v=cZleUeG1078>

Allan Savory: How to fight desertification and reverse climate change Ted Talk February 2013, (22:11):
https://www.ted.com/talks/allan_savory_how_to_green_the_world_s_deserts_and_reverse_climate_change#t-1215398

Teacher Note: Alan Savory was vilified and dismissed in Cowspiracy for the killing of 40,000 elephants in Africa in the 1950's in an attempt to preserve grassland ecosystems in National Parks. View this Ted Talk to hear the whole story.

Meat Myth Crushers videos: <http://www.meatmythcrushers.com/videos.html>

- This is a series of short 3 to 5 minute videos on current topics of meat production in the USA.
- Meat Myth Crushers was developed in consultation with some of the leading experts in the field of meat and animal science, food safety and nutrition to provide consumers and media with the other side of the story – a side that often is overlooked in media reports and on the Internet.

The [North American Meat Institute](#), the nation's oldest and largest trade association representing the U.S. meat and poultry industry, hosts the site. Materials have been reviewed by the members of the [American Meat Science Association](#) and other experts in the field.

Myth Videos most relevant to the issues raised in Cowspiracy include:

- [It takes 2,400 Gallons of Water to Make a Pound of Beef](#)
- [Livestock Have a Greater Negative Environmental Impact than Cars](#)
- [Simply Cutting Meat From Your Diet Will Make it Healthier](#)
- [The Use of Modern Technologies to Raise Animals Has Done More Harm Than Good](#)
- [Americans Eat Too Much Meat And Its Saturated Fat Content Leads To Heart Disease](#)
- [Going Meatless One Day a Week Can Have a Significant Environmental Impact](#)

2. Print Resources

An Ethical Meat Eater's Response to the Film 'Cowspiracy' By Caroline Watson December 10, 2015:
<http://primaleye.uk/ethical-meat-eaters-response-to-cowspiracy/>

How accurate is the movie Cowspiracy? on Quora: <https://www.quora.com/How-accurate-is-the-movie-Cowspiracy>

Especially complete answers by

- Stephen Zwick
- Karin Lindquist

Green Peace response Blogpost by Robin Oakley - 19 October, 2015:

<http://www.greenpeace.org/international/en/news/Blogs/makingwaves/food-for-life-cowspiracy/blog/54404/>

Despite having some confusing/conflicting references to statistics the response does address the Cowspiracy's conspiracy theory.



Cowspiracy & the Building Blocks of an Absolutist Position by Joshua Finch in Daily Kos February 5, 2015:
<http://www.dailykos.com/story/2015/2/5/1361523/-Cowspiracy-The-Building-Blocks-of-an-Absolutist-Position>
This is a very long article which is part movie review part rebuttal.

3. Other Related Resources of Interest

Agriculture is always innovating and trying to improve in all three areas: economy, society and environment. The media reports below provide a short and interesting look at some current research that is relevant to methane production by cattle.

- Seaweed supplement could slash cattle methane staff article Manitoba Co-operator, October 27, 2016, page 2:
http://static.agcanada.com/wp-content/uploads/2016/10/MBC161027.pdf#_ga=1.221303960.1637155944.1449774555
- Seaweed reduces methane from cows, CBC radio Mainstreet PEI, November 17, 2016, Season 2016, Episode 300270023 06:03 It's being called a game changer in terms of global warming. Seaweed reduces methane in cow burbs and farts to almost nothing. The research started with a farmer in Seacow Pond. <http://www.cbc.ca/player/play/2697842260>
- P.E.I. farmer assists in near-eradication of methane from cow farts: Scientist discovers particular seaweed reduces methane to nearly zero in cow burps, farts article by Shane Ross • CBC News, November 18, 2016
<http://www.cbc.ca/beta/news/canada/prince-edward-island/pei-cow-farting-1.3856202>

V. Classroom Activity Sheets

1. Reflections on 'Cowspiracy' - below
2. Considering another Viewpoint - below



Reflections on 'Cowspiracy'

• A. Indicate whether you agree or disagree with the following statements by circling A for agree or D for disagree. Be prepared to share your reasons for your choice.

A	D	1.	Cowspiracy was an emotionally powerful film.
A	D	2.	a) Cowspiracy was made using professional quality production methods including sound, lighting, film editing etc.
A	D		b) The production methods used to make the film helped it gain media and public attention.
A	D		c) High quality film productions deliver their message to an audience with more impact than low quality video presentations.
A	D	3.	a) One of the main themes of the movie was the premise that there was a conspiracy between environmental groups, animal agriculture groups and government to hide that livestock is the cause of climate change.
A	D		b) The filmmaker presented a well-supported case for this conspiracy theory.
A	D	4.	a) The filmmaker ambushed people from various environmental groups and then made them look foolish in the movie.
A	D		b) I found this to be a convincing and valuable method for providing support for the filmmaker's argument.
A	D	5.	Reductionism, the over simplifying of complex subjects to the point where discussion is void of sufficient detail to fully appreciate the subject, was used in this film.
A	D	6.	The filmmaker featured diverse experts with a range of opinions on the subject of livestock and climate change.
A	D	7.	The filmmaker vilified, dismissed and did not include experts who did not agreed with the filmmaker's position.
A	D	8.	The statistics used in this film were used to shock viewers.
A	D	9.	The statistics used in this film were presented as facts with little or no nuance, background or consensus needed to support the statistics.
A	D	10.	Cowspiracy offered one simplistic solution for the complex issue of climate change.
A	D	11.	The filmmaker offered a very 'western-centric' or even 'USA-centric' solution for the complex global issue of climate change.

B. What is the main message you took away from this film?



Considering another Viewpoint

Watch 'Defending Beef', Nicolette Niman's keynote at Artisans of the Grasslands conference November 30, 2015, (34:48): <https://www.youtube.com/watch?v=cZleUeG1078>. Then answer the questions below:

1. a) What background, experience and credentials does Nicole Niman, Defending Beef, have?

b) In your opinion, is Nicole Niman a credible source for information about beef cattle and their impact on climate change? Explain.

2. a) What background, experience and credentials does Kip Andersen, Cowspiracy, have?

b) In your opinion, is Kip Andersen a credible source for information about beef cattle and their impact on climate change? Explain.

3. Compare and contrast the following aspects of 'Cowspiracy' and 'Defending Beef':

a) The quality and type of production methods used to produce each of the above and how that impacted your reaction to each.

b) Methods used to provide support for the statements, facts, or conclusions made.

4. Statistics are a useful measuring and analysis tool when derived using proper methodology and presented in context. Such statistics can help us compare past to present and predict the future. They can help us identify areas of concern to be addressed. However, single statistics taken out of context often become meaningless hence the popular quote, "There are lies, damn lies and statistics."

a) Identify the 2 main greenhouse gas emission statistics used in Cowspiracy.

b) Compare and contrast the information, discussion and context provided about each of these statistics in 'Cowspiracy' and 'Defending Beef'.

5. What is the main message you took away from 'Defending Beef'?

6. Compare the main messages you took away from 'Cowspiracy' and 'Defending Beef'. Do you think there is value in considering more than one view point on an issue? Explain.

