



Incorporating Information Literacy Skills into Agricultural Coursework

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Introduction / Need for Innovation

- College students are responsible for using information ethically and produce new information (Association of College & Research Libraries [ACRL], 2015)
- “Faculty have a greater responsibility in designing curricula and assignments that foster enhanced engagement with the core ideas about information and scholarship within their disciplines” (ACRL, 2015, p. 7)
- “Agricultural literacy is a growing issue across the United States” (Chapman & Lindner, 2018, p. 95)
- ACRL’s (2015) concepts for information literacy and the ag industry’s concern for agricultural literacy present a need and opportunity for course redesign to yield more agriculturally literate students prepared to correspond about agriculture through multiple modes of communication

How It Works

- Students placed in groups to investigate assigned controversial topic related to ag
- University librarian gave lecture on evaluating credibility of resources
- University writing center gave lecture on tone in a writing blogs and citing references
- Each group produced : (1) oral presentation with a slide deck; and (2) blog entry shared with public audience (both due mid-term)
- Students then self-selected controversial topic in ag and wrote one-page issues brief
- In round-robin partner discussions, students discussed their issues brief with classmates

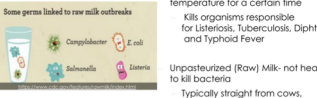
Raw Milk: Should you be drinking it or helping ban it?
By: Anne W., Angayla M., Marley C., Isabel L., Chelsea P., Kayla M., Ellen S., Janae C., & Madeline H.



Do you know the pros and cons of drinking raw milk compared to pasteurized milk? Well if you don't, here is a crash course in all things milk!

What's the difference, milk is milk, right?
My friend, you're really mistaken if you think all milk is the same, so we're going to break it down for you! Raw Milk comes directly from Betsy the cow to your table for you to drink, or to make milk by products like soap, cheese, butter, etcetera. Pasteurized Milk, on the other hand, goes from Betsy to a processor to be heated to 72.3°C where the heat kills off bacteria and pathogens, which in turn helps promote a longer shelf life and is safer to consume. What does any of this mean for you as the consumer, and why should you be concerned? Tightly those boot straps and head on down to Dairy Town, it's gonna get quite messy with the expensive milk debate.

What's the difference?




Pasteurized Milk: heated to specific temperature for a certain time. Kills organisms responsible for Listeriosis, Tuberculosis, Diptheria, and Typhoid Fever.

Unpasteurized (Raw) Milk: not heated to kill bacteria. Typically straight from cows, sheep, and goats.

The Use of Solar Technology in Agriculture

Background
The use of solar technology in the agriculture industry can often times be a source of controversy. There are some people who see the technology as expensive and not reliable while others see it as opening the door to new opportunities in the industry. Solar water heaters, solar heat collectors, and photovoltaics are all among some of the most common. The technology has been implemented as a more natural source of energy but there are others that see it as doing more harm than good.

Pros


Supporting Arguments

- Reduces pollution
- Solar energy has the ability to cut the cost of a farm's electricity and heating bill in half (A Natural Fit)
- Solar heat collectors can be used to keep greenhouses and livestock buildings along with the things within them warm and dry (A Natural Fit)
- Photovoltaics are used in remote areas where setting up powerlines is not realistic (Bogues)
- Solar energy is seen as a "viable solution to drought-related problems" (Roach)

Opposing Arguments

- Using a lot of these panels takes up valuable farmland.
- It can destroy some of the natural wildlife on the land.
- In some cases, it will unethically damage the properties soil (Fortuna)
- They are expensive to build
- Their efficiency is often times effected by the weather conditions (Gallic)
- Solar panels can sometimes get too hot to function properly (Science Daily)

Author's Position
After researching this topic, although this could be a more natural way to provide energy, as of today, I do not feel as if the technology is where it needs to be fully trusted within an operation. The cons to the use of solar technology out weigh the benefits in my opinion. When it comes to making an operation, one of the most important things is the reliability of your equipment. Without it, the job will take longer or will not be able to be completed. When looking at the numbers, although it might save you money on the electric bill, it is a lot to front before you will be able to notice the impact. The amount of space these panels take up on the land that you could be using for your operation is a downside for me as well. I do think that there have been significant improvements made and there will be a great need and use for this technology in the near future once some of these issues get worked out.

Web-based References	
What is the website domain? (.gov, .edu, .ac, .org, etc.)	.gov
Is this a scholarly or non-scholarly source?	scholarly
Who is the author?	The Food and Drug Administration
How/ why is the author qualified to write on the topic?	Because they are a nationwide organization determined to inform and ensure the safety of consumers
Is the page sponsored or biased?	Sponsored
How relevant is the information? What year was it published?	2018
Why was this work written?	To inform people of the difference between pasteurized and raw milk
Based on the information above, rate the credibility of the source on a scale of 1 – 5: (1 = Not Credible, 2 = Slightly Credible, 3 = Moderately Credible, 4 = Credible, 5 = Very Credible)	5

Future Plans / Advice to Others

- Piloted a student information literacy knowledge and skills test; results yielded high Cronbach’s alpha reliability coefficient; pre- and post-test research study planned
- Consider alternate methods for sharing blogs (e.g. email with a link or sharing a link via text message) to solicit feedback
- Group students by various characteristics (e.g. academic major, age, or ag background) to increase diversity of perspectives

Costs / Resources Needed

- Financial Resources: None
- Technical Resources: Computers, internet access, word processing application, multimedia presentation application
- Human Resources: Library & Writing Center

References

Association of College & Research Libraries. (2015). *Framework for information literacy for higher education*. <http://www.ala.org/acrl/standards/ilframework>

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“The professor made every class meeting interesting and fun and I appreciated his care for student involvement and allowing people to discuss controversial topics in a civil manner without making anyone feel their opinion was wrong or right.”

“I walked away from this class with new information and more insight on how to perceive the world around me.”



“I love that the professor wants us to feel educated about both sides of a topic; he is very understanding.”

Results to Date / Implications

- Students (a) realized knowledge gaps; (b) identified bias; (c) enjoyed active learning; (d) became more information literate
- Faculty teaching evaluation increased .08 pts; higher than college & university average