

# Agricultural science

with Dr Ataharul Chowdhury

## Talking points

### Comprehension

1. What is the difference between misinformation and disinformation?
2. What problems are caused by agri-food misinformation?
3. What is the theory of Lysenkoism, and why was this a problematic agricultural policy?

### Application

4. If you saw a claim on social media that “soybean causes cancer”, what could you do to verify whether the information was true or false?

### Analysis

5. What motivations might a farmer, crop breeder and health food blogger each have for spreading mis- or disinformation about genetically modified crops?
6. What economic, environmental and social arguments do you think exist for and against organic farming? How could this information be used to spread misinformation promoting organic farming and misinformation discouraging organic farming?

### Synthesis

7. People who spread misinformation genuinely believe that their information is true. What actions do you think individuals, organisations and social media companies should take to combat the increasing spread of misinformation?

### Evaluation

8. What career in agricultural science most interests you, and why?

Contact Ataharul if you would like to know more or get involved: [ataharul.chowdhury@uoguelph.ca](mailto:ataharul.chowdhury@uoguelph.ca)

## Activity

Choose a controversial topic related to food or agriculture (e.g., genetically modified crops or antibiotics and steroids in animals) or an agri-food misinformation story (e.g., the ban on chemical fertilisers in Sri Lanka, vandalism of genetically modified crops or a story from the article) and research it online. Find information from both sides of the debate or story and consider the following:

- Who is making each claim and what are their motivations for doing so?
- Who is disputing these claims, and how and why?
- What do scientific experts have to say about the topic?
- What does public opinion seem to be on the topic?
- What are/were/will be the consequences of the issue?

Imagine you are a journalist tasked with reporting on the issue of agri-food misinformation. Write an article about the causes and consequences of misinformation related to food and agriculture using your topic or story as an example. Your article should present a balanced view of the topic itself, while highlighting how different sides of the debate use and misuse information to support their cause and undermine the opposition.

## More resources

- Learn more about Ataharul’s Misinformation Research project: [www.misinfoforesearch.com](http://www.misinfoforesearch.com)
- Discover how a food blogger initiated the Canadian ‘buttergate’ scandal: [www.cbc.ca/news/canada/calgary/buttergate-goes-viral-putting-palm-oil-fat-supplements-in-spotlight-1.5927194](http://www.cbc.ca/news/canada/calgary/buttergate-goes-viral-putting-palm-oil-fat-supplements-in-spotlight-1.5927194)
- In 2021, the Sri Lankan government banned chemical fertilisers. This article (written by an organisation that promotes regenerative farming), discusses how misinformation has resulted in organic farming being blamed for the country’s economic crisis: [www.regenerationinternational.org/2022/11/15/the-distorted-lies-about-sri-lankas-organic-pathway](http://www.regenerationinternational.org/2022/11/15/the-distorted-lies-about-sri-lankas-organic-pathway)
- This academic article discusses how science and opinion influenced decision making during Sri Lanka’s food security collapse: [doi.org/10.1002/moda.18](https://doi.org/10.1002/moda.18)
- Ataharul has written a framework for researching and understanding online agri-food misinformation: [doi.org/10.3390/su15064753](https://doi.org/10.3390/su15064753)
- He has also developed a community-based approach for combating agri-food misinformation: [agdevresearch.org/index.php/aad/article/view/349](http://agdevresearch.org/index.php/aad/article/view/349)